U.S. Department of Homeland Security
Region IV
3003 Chamblee Tucker Road
Atlanta, GA 30341

FEMA

Exercise Report

ST. LUCIE NUCLEAR PQWER PLANT

Licensee: Florida Power and Light Company

Exercise Date: February 18,2004

Report Date: **April** 23, 2004

TABLE OF CONTENTS

Page

List of Appendices

List of Tables

I. EXECUTIVE SUMMARY

On February 18, 2004. the Department of Homeland Security-Federal Emergency Management Agency (FEMA) Region IV conducted a full participation plume exposure pathway exercise in the emergency-planning zone (EPZ) around the St. Lucie Nuclear Power Plant. The purpose ofthe exercise was to assess the level of State and local preparedness in responding to a radiological emergency. This exercise was conducted in accordance with FEMA's policies and guidance for offsite preparedness exercises in order to reach a determination of reasonable assurance that tlie State **and** County governments are able to protect the health and safety of the public. 'The previous federally evaluated exercise at this site was conducted on February 20. 2002. 1hc qualifying emergency preparedness exercise was conducted February 10-12. 1982.

The State of Florida. Risk Counties of Martin and St. Lucie, and Support Counties of Hrevard, Indian River. and Palm Reach participated in this exercise. The State Emergency Operations Center (SEOC) in Tallahassee played in this exercise until direction and control was lranded off to the Forward State Emergency Response Team (FSERT). FEMA Region IV wishes to acknowledge 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. Protecting the puhlic health and safety is the full-time Job of some exercise participants and an assigned responsibility for others. Others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities.

Although this was a plume exposure pathway exercise. all three Support Counties participated as well in order to demonstrate the distribution of potassium iodide (KI) to the public for the first time in the **State** of Florida.

'Thisreport contains the evaluation of the exercise. as well as out-of-sequence activities demonstrated during the week of January 19-23, 2004. which included: Distribution of KI to the public. traffic control points (TCP), emergency worker decontamination (EWD), protective actions for schools. reception centers. registration and congregate care.

The State and local organizations demonstrated tlie knowledge and ability to implement their emergency response plans and procedures. No Deficiencies were noted during. the exercise, however, two Areas Requiring Corrective Action (ARCA) were identified during out of sequence activities in Palm Beach County. One ARCA was due to cross-contamination during the initial monitoring phase and was immediately corrected by on the spot training and re-demonstration; the other was a result of equipment calibration and has been corrected by documentation provided by the manufacturer. through Palm Beach County, specifying calibration requirements,

II. INTRODUCTION

On December 7. 1970. the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. FEMA's activities are conducted pursuant to Title 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352. 'These regulations arc a key element in the Radiological Emergency I'reparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

Title 44. CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part. on State and local governinent participation in joint exercises with licensees.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities (FNF) include the following:

Taking the lead in offsite emergency planning and in the review and evaluation of radiological emergency response plans (RERP) and procedures developed by State and local governments:

Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments:

- Responding to requests by the Nuclear Regulatory Commission (NRC) pursuant to the Memorandum **of** Understanding between the NRC and FEMA (Federal Register, Vol. 58, No. 176, September 14. 1993).

Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:

Department of Agriculture
Department of Commerce
Department of Energy
Department of Health and Human Services
Department of the Interior
- Department of Transportation
- Environmental Protection Agency
- Food and Drug Administration. and
- Nuclear Regulatory Commission.

Representatives of these agencies serve on the FEMA Region IV Regional Assistance Committee (RAC) which is chaired by FEMA.

Formal submission of the RERPs for tlie St. Lucie Nuclear Power Plant to Department of Homeland Security, FEMA Region IV by the State of llorida was made on August ***26,*** 1983. Formal approval ofthese RERPs was granted on February 14, 1984.

A REP exercise was conducted on February 1X, 2004, with out of sequence activities conducted during tlie week of January 19-23 in both risk and host counties, by FEMA Region IV to assess tlie capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiologicai emergency involving the St. Lucie Nuclear Power Plant. This report presents the exercise results and findings on tlie performance of tlie offsite response organizations (ORO) during a simulated radiologicai emergency.

The findings presented are based on the evaluations of the Federal evaluator team. with final determinations being made by the FEMA Kegion IV RAC Co-Chair and Chief Evaluator with final approval by the Regional Director.

The criteria utilized in the FEMA evaluation process are contained in:

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." November 1980;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual." Sections **A.** B and C dated September 1991 ; and
- FEMA "Interim Kadiological Emergency Preparedness Manual," dated August 2002.

Section III, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities, which were evaluated. and a table presentation ofthe time of actual occurrence of key exercise events and activities.

Section IV, entitled "Exercise Evaluation and Results." presents summary information on the demonstration of applicable exercise criteria at each jurisdiction or functional entity evaluated in a results only format.

III. EXERCISE OVERVIEW

Contained in this section are data and basic inforination relevant **to** the February 18. 2004 exercise and out of sequence activities during.the **week** of January 19-23. to test tlie offsite emergency response capabilities in the area surrounding the St. Lucie Nuclear Power Plant.

A. Plume EPZ Description

The St. Lucie Nuclear Power Plant is located on Hutchinson Island approximately 4 miles east-northeast of the City of Port St. Lucie. approximately 8 miles southeast ofthe City of Fort Pierce **in** St. Lucie County, approximately 5.5 miles north of the Martin County/St. Lucie County boundary line. This Facility is owned an operated by the Florida Power & Light Company (FPL).

Both Hutchinson Island and the southern portion of North Hutchinson Island are located within the EPZ. Three causeways link Hutchinson Island to the mainland. which leads to U S Highway 1 and I-95. Parts of St. Lucie and Martin Counties lie within the IO-mile EPZ. The main use of tlie land is residential and recreational. Approximately 170,000 people reside within the 10-mile EPZ.

B. Exercise Participants

The following agencies. organizations. and units of government participated in tlie St. Lucie Nuclear Power Plant exercise on February 18. 2004.

STATE OF FLORIDA

Department of Health. Bureau of Radiation Control
Department of Transportation
Division of Emergency Management
Florida Highway Patrol

RISK JURISDICTIONS

Martin County
St. Lucie County

SIJPPQRTJURISDICTIONS

Brevard County
Indian River County
Palm Beach County

PRIVATE/VOLUNTEER ORGANIZATIONS

American Red Cross
Amateur Radio Emergency Services (ARES)
Radio Amateur Civil Emergency Service (RACES)

C. Exercise Timeline

Table 1, on the following page, presents the time at which hey events and activities occurred during the St. Lucie Nuclear Power Plant esercise on February 18, 2004.

Table 1. Exercise Timeline

DATE AND SITE: St. Lucie Nuclear Power Plant - February 18, 2004

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken					
		SEOC	F-SERT	ENC	EOF	ST. LUCIE	MARTIN
Unusual Event							
Alert	0830	0830			0830	0839	0841
Site Area Emergency	0958	0958		1004	0958	1008	1009
General Emergency	1222	1237	1222	1225	1222	1231	1239
Simulated Rad. Release Started	1238	1323	1238		1238	1248	1322
Simulated Rad. Release Terminated							
Facility Declared *Operational*		0855	1045	1000		1000	0854
Declaration of State of Emergency **Local** **State**		 1015		 1135		0851	0854 1050
Exercise Terminated		1401	1400	1400	1400	1400	1400
Early Precautionary Actions: ID special needs: evacuate schools *Evacuate special needs and parks*						1031 1035	0855 0918
1st Protective Action Decision –Stay tuned message		1033				1025	1023
1st Siren Activation			1035			1035	1035
1st EAS Message			1035			1035	1035
2nd Protective Action Decision **Evacuate Zones: 1, 2, 5, 6, 7 and 8** **Shelter Zones: 3 and 4**			1246			1248	1247
2nd Siren Activation			1300			1300	1300
2nd EAS Message			1300			1300	1300
KI Decision: **Emergency Workers: *Ingest*** **Public: Ingest** **Special Populations:** **Prisoners and institutionalized**		1243	1256 1314			1259 *1350* 1334	1258 1352

IV. EXERCISE EVALUATION AND RESULTS

Contained in this section are tlie results and preliminary findings of the evaluation of all jurisdictions and functional entities. which participated in the February 18. 2004 exercise and out of sequence activities during tlie **week** of January 19-23, 2004, to test the offsite emergency response capabilities of State and local governments within tlie 10-mile EPZ around the St. Lucie Nuclear Power Plant.

Each .jurisdiction and functional entity was evaluated on tlie basis of its' demonstration of criteria as delineated in REP Exercise Evaluation Methodology, dated December 2001. Derailed information on the exercise criteria and the extent-of-play agreement used are found in Appendix *3* of this report.

A. Summary Results of Exercise Evaluation - Table 2

The matrix presented in Table 2. on the following page. presents the status of all exercise criteria that were scheduled for demonstration during this exercise. by all participating jurisdictions and functional entities. Exercise criteria are listed by number. The demonstration status of those criteria is indicated by the use **of** the following letters:

M - Met (No Deficiency or ARCAs assessed and no unresolved **ARCAs** from prior exercises)

D - Deficiency assessed

A - ARCA(s) assessed **or** unresolved ARCA(s) from prior exercise(s)

N - Not Demonstrated (Reason explained in Subsection B)

TABLE 2. Summary of Exercise Evaluation

DATE AND SITE: February 18, 2004 - St. Lucie Nuclear Power Plant

ELEMENT/Sub-Element	SEOC	F-SERT	DOSE-DOH	ENC	EOF	RAD LAB	FIELD TEAM	ST. LUCIE	MARTIN	BREVARD	INDIAN RIVER	PALM BEACH
1. EMERGENCY OPERATIONS MANAGEMENT												
1.a.1. Mobilization	M	M	M	M	M			M	M			
1.b.1. Facilities												
1.c.1. Direction and Control	M	M	M		M			M	M			
1.d.1. Communications Equipment	M	M	M		M		M	M	M			
1.e.1. Equipment & Supplies to Support Operations	M	M	M	M	M	M	M	M	M	M	M	A/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. Rad Assessment and PADs for the General Public		M	M					M	M			
2.c.1. Protective Action Decisions for Special Populations								M	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	M	M	M	M
3.b.1. Implementation of KI Decisions			M-KI				M	M	M			
3.c.1. Implementation of PADs for Special Populations								M	M			
3.c.2. Implementation of PADs for Schools								M	M			
3.d.1. Implementation of Traffic and Access Control								M	M	M	M	M
3.d.2. Impediments to Evacuation and Traffic and Access Control								M	M	M	M	M
3.e.1. Implementation of Ingestion *Decisions Using Adequate Info*												
3.e.2. Implementation of IP Decisions Showing Strategies and Instr. Materials												
3.f.1. Implementation of Relocation, Re-entry and 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				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-c	M-c						M	M			
5.a.2. Activation of Prompt Alert and Notification 15 Minute (Fast Breaker)												
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								M	M	M	M	A/M
6.b.1. Monitoring and Decon of Emergency Worker Equipment								M	M			
6.c.1. Temporary Care of Evacuees										M	M	M
6.d.1. Transport and Treatment of Contaminated Injured Individuals												

LEGEND: M = Met A = ARCA A/M ARCA/Corrected M-c = coordination role only KI = distribution to public

B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity in a jurisdictional results based format. Presented below is a definition of the tcnns used in this subsection relative to Criterion demonstration status.

- **Met** - Listing of the demonstrated exercise criteria under which no Deficiencies or AKCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.

- **Deficiency** - Listing of the demonstrated exercise criterion under which one or more Deficiencies was assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.

  Area Requiring Corrective Actions - Listing ofthe demonstrated exercise criterion under which one or more ARCAs were assessed during the current exercise or ARCAs assessed during prior exercises that remain unresolved. Included is a description of the **ARCA** assessed during this exercise and the recommended corrective action to be demonstrated before or during the nest biennial exercise.

- **Not Demonstrated** - Listing of the exercise criteria. which were not demonstrated as scheduled during this exercise and the reason. they were not demonstrated.

- **Prior ARCAs - Resolved** – Description(s) of ARCA(s) assessed during previous exercises, which were resolved in this exercise and the corrective actions demonstrated.

- **Prior ARCAs - Unresolved** – Description(s) of ARCA(s) assessed during prior exercises. which uere not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues. which may be discussed in this report.

- **A Deficiency** is defined in FEMA Interim REP Manual as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety ofthe public living in the vicinity of a nuclear power plant."

- An **ARCA** is defined in Interim REP Manual as "...an observed or identified inadequacy of organizational performance in an exercise that is not considered. by itself. to adversely impact public health and safety."

1. STATE OF FLORIDA

1.1 State Emergency Operations Center

The SEOC Director successfully managed the radiological emergency response by Federal, State and local agencies. The SEOC staff conducted recurring briefings and held discussions on protective action recommendations **(PAR).** Decisions were made between the State and Counties and coordinated through the SEOC. All members of the staff displayed a positive attitude **as** they carried out their functions and procedures. The SEOC was equipped with communications technology and supplies to **support** the emergency response personnel and operations.

a. **MET:** Criteria 1.a.1, 1.c.1, 1.d.1, 1.e.1 and 5.a.1

b. **DEFICIENCY:** NONE

E. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

1.2 Forward State Emergency Response Team

The F-SERT staff was pre-positioned. They were professional and proficiently carried cut their duties. The F-SEKT assumed direction and control of the operation at 1045. They used the EM2000 tracker computer system to inform the SEOC and to process requests for assistance. They coordinated actions with the County decision-makers who were also present in the Emergency Operations Facility (EOF). The arrangement allowed for excellent coordination between **the** licensee and the offsite authorities. Protective action decisions (PAD) were discussed among the *State* and County representatives, concurred by the County Emergency Operations Center (EOCj managers and effectively implemented by the Counties. 'The State provided additional resources and called for assistance From both the Federal Radiological Monitoring and Assessment Center (FRMAC) and the Southern Mutual Kadiation Assistance Plan (SMRAP).

a. **MET:** Criteria 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2 and 5.a.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

1.3 Emergency News Center

The joint staff of the St. Lucie Nuclear Power Plant Emergency News Center (ENC) is well-trained and accomplished their responsibilities in a highly professional manner. In the preparation and conduct of three media briefings and development and release of 40 news releases. this Federal/State/local and utility team exhibited a well-coordinated effort focused on safeguarding the interests of the public. The effective inedia management effort included the development of aides to enhance operations. such as the ENC Procedural Manual in the emergency management power-point presentation. This operation should he considered an example of the "best practices" for the ENC.

a. **MET:** Criteria 1.a.1, 1.e.1 and 5.b.1

b. **DEFICIENCY:** NONE

6. **AREAS REQUIRING CORRECTIVE ACI'ION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

I.4 Dose Assessment

State officials professionally conducted independent accident analysis. including radiological dose assessment. Dose assessment calculations were performed to confirm actual field team measurements and to develop projected dose consequences to support. if necessary. revising the protective actions. Both the utility operator and Nuclear Regulatory Commission (NRC) projections were in excellent agreement with the independent results calculated by the State.

a. **MET:** CriteriaI.n.1. 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 3.b.1 (DOH-KI to public) and 4.a.2

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

c. **PRIOR ARCAs - RESOLVED:** NONE

f. PRIOR ARCAs - UNRESOLVED: NONE

1.5 Emergency Operations Facility

The utility operator's EOF is an excellent facility from which all participating organizations can effectively manage ongoing emergency operations. Command and control, decision-making, communications, coordination. and the flow of technical information between the utility operator and the State and applicable local government oflicials. and representatives of the NRC were exemplary. **All** State and local government officials. deployed to the EOF were well trained, followed applicable procedures: and overall, carried out their respective responsibilities in an efficient and professional manner. consistent with the preservation of public health and safety.

a. MET: Criteria 1.a.1, 1.c.1, 1.d.1 and 1.e.1

b. DEFICIENCY: NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. NOT DEMONSTRATED: NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. PRIOR AKCAs - UNRESOLVED: NONE

1.6 Radiological Field Monitoring Teams

The Florida Bureau of Radiation Control (BRC) deployed three field-monitoring teams (FMT). FMTs were equipped with appropriate, calibrated instruments. The teams were dispatched to fixed monitoring locations identified within the St. Lucie 10-mile EPZ. The teams demonstrated their ability to use the equipment to measure ambient radiation levels and collect air samples. The FMTs demonstrated an understanding of their mission and were aware of their dose limits.

a. MET: Criteria 1.d.1, 1.e.1, 3.a.1, 3.b.1, 4.a.1, 4.a.2 and 4.a.3

h. DEFICIENCY: NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. NOT DEMONSTRATED: NONE

e. **PRIOR AKCAs – RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

1.7 Radiological Laboratory

The personnel assigned to the Mobile Emergency Response Laboratory (MERL) successfully demonstrated their assigned duties. The MERL was equipped to perform analyses of gamma emitting radionuclides. Samples were properly prepared and documented in accordance with procedures to avoid contamination of equipment and facilities, and to maintain the chain of custody. Survey meters used for contamination control functioned properly and had current calibration dates. All laboratory personnel had appropriate dosimetry and were aware of dose limits and administrative reporting levels.

a. **MET:** Criteria 1.e.1, 3.a.1 and 4.c.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

2. RISK JURISDICTIONS

2.1 ST. LUCIE COUNTY

2.1.1 Emergency Operations Center

The St. Lucie EOC staff, although pre-positioned for the exercise per the extent-of-play, demonstrated through interview and staff rosters the capability to receive: notification **of** an emergency and to mobilize appropriate personnel. The Emergency Operations Chief **and** REP Coordinator provided excellent leadership as well **as** direction and control. Staff members implemented the plan and followed procedures, ensuring ***a*** well organized and coordinated response. Staff briefings were conducted regularly. The public information effectively responded to public inquiries. PADs were coordinated and implemented per plans and procedures, ensuring the safety of the public. The staff, including volunteers and federal partners, is commended **for** their exceptional display **of** teamwork. The investment of the County and the responding staff effort was evident and reflected an excellent, **well** managed and coordinated effort.

a. **MET:** Criteria 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, 3.d.1, 5.a.1, 5.a.3 and 5.b.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACI'ION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs – RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.1.2 Protective Actions for Schools

The St. Lucie County School District demonstrated protective actions for schools through a series of interviews conducted at 15 public schools. The school administrators interviewed were knowledgeable of District procedures. had individual school policies in place. and took actions to maintain staff. faculty and parental awareness of evacuation policies and procedures. Procedures also addressed requirements of students with special needs. **All** personnel interviewed were professional and had planned for the well being ofstudents. staff and faculty in the event of an emergency.

a. **MET:** Criterion 3.c.2

h. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.1.3 Emergency Worker & Vehicle Decontamination

The St. Lucie County Public Safety Division, Fire Rescue District and Sheriffs Office successfully demonstrated emergency worker equipment monitoring and decontamination at St. Lucie West Middle School. There was sufficient space and facilities to handle the anticipated number of emergency workers. vehicles and equipment. Personnel were knowledgeable of dosimetry, turn-back values and their individual responsibilities. They demonstrated the ability to monitor personnel and material, and manage contamination control. The Team displayed cooperation, control of resources and teamwork. The quality of training was quite apparent.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.b.1, 6.a.1 and **6.b.l**

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs – RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

2.1.4 Traffic and Access Control

TCPs were demonstrated through interview with two County Sheriffs Deputies and evaluation of the representatives from the Sheriff-s Office and County Public Works in the EOC. The staffs were very familiar with traffic and access control procedures. evacuation routes, procedures necessary to remove impediments to evacuation and the location ofthe reception centers to which they were required to direct traffic. Public Works staff fulfilled a request to deliver barricades to several TCPs. The Deputies also demonstrated good knowledge of the use of dosimetry. KI. and exposure limits for emergency workers.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.b.1, 3.d.1 and 3.d.2

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2 MARTIN COUNTY

2.2.1 Emergency Operations Center

The well-coordinated EOC was led by the Director of Emergency Management. The REP program administrator. serving as operations Chief provided capable leadership to a competent and supportive staff. The EOC staff coordinated with St. Lucie County. the State and the EOF in the formulation of the evacuution and shelter-in-place PADs, siren sounding and issuance of Emergency Alert System (EAS). Periodic EOC briefings and

informative agency updates were conducted. Demonstrations of public inquiry. relocation of school children and special populations. policy discussion on KI distribution and ingestion and public information were professionally accomplished. The presence of the Chairman of the County Commission and participation of State. utility and local responders represent the commitment of the community to attain and sustain the capacity demonstrated in this successful EOC operation.

a. **MET:** Criteria 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, 3.d.1, 5.a.1, 5.a.3 and **5.b.1**

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

c. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.2 Protective Actions for Schools

An interview was conducted with the Administrator of lie Environmental Studies Center in Jensen Beach in the Martin County Independent School District. The Administrator is very knowledgeable of the plans and procedures for preparing students for relocation to host schools. The Administrator and teachers are equipped with Nextel telephones and all buses are equipped with 800 Megahertz radios. Buses are kept at the school and available when needed. Other buses are available for dispatch tu the two elementary schools within the 10-mile EPZ so all students could be evacuated in one pickup.

as. **MET:** Criterion 3.c.2

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

2.2.3 Emergency Worker & Vehicle Decontaniination

The Martin County Fire Services demonstrated emergency worker monitoring and decontamination. The team was briefed on assignments. issued appropriate personal dosimetry. monitoring and decontamination equipment and performed pre-operational checks. The demonstration included the proper monitoring of four emergency workers and three vehicles. The operational area was well laid out facilitating the process. The team demonstrated excellent contamination control. and displayed good communications and teamwork.. Personnel were knowledgeable and well trained.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.b.1, 6.a.1 and6.b.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

E **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED**: NONE

2.2.4 Traffic Control Points

A deputy from the County Sheriff's Department demonstrated TCP procedures by interview. He described his responsibilities in establishing and staffing both traffic control and access points. He was familiar with information he might he required to impart to evacuees to include evacuation routes and locations of shelters. The deputy was provided personal dosimetry and described the use of direct-reading and permanent-record dosimetry, exposure limits. KI and its side effects. He was familiar with impediment removal and the means to access cones. barriers and other materials required to support his activities.

a. **MET:** Criteria I.e.l.3.a.l. 3.h.l. 3.d.l and 3.d.2

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3. SUPPORT JURISDICTIONS

3.1 BREVARD COUNTY

3.1.1 Reception Center

Personnel demonstrated the ability to manage contamination control, displayed good communications and teamwork. The County Health Department demonstrated the ability to dispense KI to evacuees in an informative and efficient process. American Ked Cross (ARC) registration of the evacuees was well organized. Although approximately 8,000 evacuees are anticipated. there is ample space and facilities to handle npproxiiiiately 100.000 evacuees and vehicles. should the need arise. Special equipment for survey and decontamination of non-amhulatory evacuees was also available. Emergency workers were issued the appropriate dosimetry. All personnel were well trained and demonstrated a high degree **of** knowledge on evacuee processing procedures.

a. **MET:** Criteria 1.e.1, 3.a.1, **3.h.l** and 6.a.l

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs – RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.1.2 Temporary Care

The Space Coast Chapter of the ARC professionally demonstrated congregate care at Peace Lutheran Church. Five evacuees were processed at the reception center on 1-95. The evacuees carried their registration forms to the shelter. **All** personnel were knowledgeable of their responsibiiities, professional. and very cooperative. The Hrevard County Sheriffs Department provided security and traffic management at the shelter and ARES provided back up communications.

a. **MET:** Criteria 1.e.1 and 6.c.1

b. **DEFICIENCY:** NONE

E **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.1.3 Traffic Control Points

Personnel from the Brevard County Sheriff Department and Florida Highway Patrol successfully demonstrated TCPs on January 22. 2004. The TCPs were established at the Valkeria Rest Area on I-95 to direct evacuees to the nionitoring and decontamination station. They clearly explained their duties in directing traffic. how to remove traffic impediments. and knew what procedures to follow in case they were exposed to radiation. They had a working knowledge of KI and the dosimetry they carried.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.d.1 and 3.d.2

b. **DEFICIENCY:** NONE

e. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs - UNRESOLVED:** NONE

3.2 INDIAN RIVER COUNTY

3.2.1 Reception Center

Evacuee monitoring. registration and reception was demonstrated at the Indian River County Regional Park. The County Fire arid Rescue Service assisted by the Departments of Health and REP provided a full display and superb demonstration of established procedures. The available area was well organized with appropriate signage and control mechanisms to control the tlow of the anticipated evacuees. Personnel demonstrated excellent knowledge of personal dosimetry. monitoring equipment. procedures and contamination control protocols. They displayed good communication arid teamwork. The County Health Department demonstrated the ability to dispense KI to evacuees *in* an efficient and informative process. Personnel representing each agency were highly professional, motivated. knowledgeable and well trained.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.b.1 and 6.a.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.2.2 Temporary Care

The Treasure Coast Chapter of the ARC successfully demonstrated activities during an out-of-sequence interview conducted at the Sebastian River Middle School Evacuee Center. The manager interviewed was well aware of his responsibilities and how to request additional personnel. equipment. supplies and food to support the evacuee population. The manager was aware of additional assistance that could be provided by the School District and the County EOC. He is very experienced, professional. and displays a positive attitude.

a. **MET:** Criteria l.e.l and 6.c.i

b. **DEFICIENCY:** NONE

E. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs – RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.2.3 Traffic Control Paints

County Sheriff's Office personnel successfully demonstrated TCPs by interview. The Deputy interviewed was well aware of his responsibilities and how to request additional equipment required from the EOC. The Deputy also described the standard process to request or other assistance to clear the road of vehicles that break down or other impediments to traffic flow. He was aware that he would be issued dosimetry and a detailed radiological briefing prior to being dispatched to the TCP. The Officer understood his responsibilities. was ready to follow instructions. provided correct information, was professional and displayed a positive attitude.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.d.1 and 3.d.2

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.3 PALM BEACH COUNTY

3.3.1 Reception Center

The County Emergency Management Coordinator established a unified command to coordinate the activities of supporting elements from the County Fire and Rescue, Department of Health, Sheriffs Office, Public Information. and the ARC. Personnel demonstrated all phases of personnel and equipment registration. monitoring and decontamination. The Incident Commander was advised of concerns with aspects of the demonstration concerning cross-contamination, and after a short training period the procedures were satisfactorily re-demonstrated. Additionally, it was noted that the portal monitors used for initial and post decontamination nionitoring werc outside the required calibration date. Personnel were generally well versed in their responsibilities and displayed a positive attitude.

a. **MET:** Criteria 3.a.1 and 3.b.1

b. **DEFICIENCY:** NONE

E. **AREAS REQUIRING CORRECTIVE ACTION:**

Issue No.: 04-55-1.e.1-A-01

Condition: Portal Monitors are used to identify contaminated evacuees. The facility utilizes Ludlum model 52-1 portal monitors to check all incoming evacuees fur contamination and again after any needed decontamination. Both portal monitors used were labeled with the calibration due date of July 29. 2003. Monitoring staff did not revert to using hand held instruments to check incoming evacuees.

Possible Cause: Monitoring staff did not identify this condition as a fatal problem during instrument setup.

Reference: NUREG-0654, II.7, 10; J.10 a,b,e; J.11; K.3.a, Interim RFP Manual, dated August 2002. criterion 1.e.1.

Effect: Use of instruments beyond recommended calihration date would not provide assurance that all contaminated evacuees were identified. The result could cause the contamination of clean areas. previously clean evacuees and emergency workers.

Recommendation: Bring portal monitors into current calibration or provide documentation with other than annual requirements. Provide evacuee-monitoring personnel with calibrated instruments in sufficient numbers to enable checking the required 20% of the evacuees assigned to this location within 12 hours. Provide training for monitoring personnel including actions to be taken when this condition is identified. Develop and iniplement a means for checking that monitoring equipment is within the current calihration timeframe and meets operational requirements.

Corrective Action Demonstrated: The County obtained and provided a letter from the manufacturer. Pulcir, incorporated stating "The Model 52-1 series Portable portal Monitors are designed by Ludlum Measurements to he used without calibration as long as operational check is performed prior to use using the check source provided with the instrument."

Issue No: 04-55-6.a.1-A-02

Condition: The first simulated evacuee was identified as being contaminated on the feet. He was directed to return to his vehicle and drive it to the impound area. His returned to his vehicle using the same path as he entered on. Monitoring personnel did not check this path or the portal monitor for contamination after he left. There was no use of a step-off pad **or** replaceable surface walkway was not used. The next evacuee was directed to use the same path. Effective contamination control was not in place.

Possible Cause: Clean and contaminated walkways were not appropriately identified at the initial monitoring point. Procedures did not call for the monitoring of walkways after containination was detected.

Reference: NUREG-0654 J.10.h; J.12; K.5.a. Interim KEP hlanual. dated August 2002.

Effect: Contamination would he spread to other evacuees who may not have been contaminated.

Recommendation: Provide training for monitoring personnel on actions to take when contamination is identified. Revise procedures to reflect the process that was implemented for the re-demonstration, Provide visual aids for monitoring personnel to ensure these critical steps are consistently performed. Provide a supply of shoe covers and contaminated material waste hag at this location.

Corrective Actions Demonstrated: A re-demonstration was performed successfully alter the Unified Command reviewed this problem and provided direction to nionitoring staff. Clean and contaminated flow paths were implemented. Use of removable surface of brown paper was simulated at the entrance and exit of the portal monitor. **A** change ofthe simulated removable surface and checking of the monitor was demonstrated after foot contamination was found.

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.3.2 Temporary Care

Interview and a walk-through of eight shelters successfully denionstrated congregate care on January 21, 2004, by the Greater Palm Beach Chapter ofthe ARC. The Greater Palm Beach ARC includes Henry. Glade, Okeechobce and Palm Beach Counties. **All** officials were knowledge of the evacuee registration, feeding. sleeping, health. and nientai health services offered at each of the eight congregate care centers visited. The right shelters visited provided sufficient restroom. feeding, shower. and administrative space. The ARC has arrangements with the schools and local vendors to provide food and owns twenty-one trailers loaded with cots. blankets. signs and other necessary sheltering supplies.

a. **MET:** Criteria 1.e.1 and 6.c.1

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE: ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs – RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

3.3.3 Traffic Control Points

TCPs were successfully demonstrated by the County Sheriff Department through interview on January 20,2004 at John Prince Park. The Deputy knew the purpose ofthe TCPs. He explained how evacuees corning from Martin and St. Lucie Counties would come down 1-95 and the Florida Turnpike. He knew the location of the shelters. how to remove traffic impediments and explained that his duty was to keep traffic flowing. Another officer manifested a working knowledge of dosimetry. call and turn hack values.

and exposure control. The Officers had maps. direct reading and permanent record dosimetry.

a. **MET:** Criteria 1.e.1, 3.a.1, 3.d.1 and 3.d.2

b. **DEFICIENCY:** NONE

c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAs - RESOLVED:** NONE

f. **PRIOR ARCAs – UNRESOLVED:** NONE

4. SUMMARY OF AREAS REQUIRING CORRECTIVE ACTION

4.1 2004 ARCAs

4.1.1 04-55-1.e.1-A-01 Palm Reach County Reception Center Equipment

Condition: Portal Monitors are used to screen evacuees for contamination evacuees. The facility uses Ludlum model 52-1 portal monitors to check all incoming evacuees for contamination and again after any needed decontamination. Both portal monitors used were labeled with the calibration due date of July 29, 2003. Monitoring staff did not revert to using hand held instruments to check incoming evacuees.

Possible Cause: Monitoring staff did not identify this condition as a fatal problem during instrument setup.

Reference: NUREG-0654, H.7, 10; J.10 a,b,e; J.11; K.3.a, Interim REP Manual. dated August 2002. criterion 1.e.1.

Effect: Use of instruments beyond recommended calibration date would not provide assurance that all contaminated evacuees were identified. The result could cause the contamination of clean areas. previously clean evacuees and emergency workers.

Recommendation: Bring portal monitors into current calibration or provide documentation with other than annual requirements. Provide evacuee-monitoring personnel with calibrated instruments in sufficient numbers to enable checking the required 20% of the evacuees assigned to this location within 12 hours. Provide training for monitoring personnel including actions to be taken when this condition is identified. Develop and implement a means for checking that nionitoring equipment is within the current calibration timeframe and meets operational requirements.

Corrective Action Demonstrated: The County obtained and provided a letter from the manufacturer. Pulcir, incorporated stating "The Model 52-1 series Portable portal Monitors are designed by Ludlum Measurements to be used without calihration as long as operational check is perfornied prior to use using the check source provided with the instrument."

4.1.2 0-1-55-6.2.1-A-02 Palm Reach County Reception Center - Evacuee Monitoring end Decontamination

Condition: The first simulated evacuee was identified as being contaminated on the feet. He was directed *to* return *to his* vehicle and drive it to tlie impound area. His returned to his vehicle using the same path as he entered on. Monitoring personnel did not check this path or the portal monitor for contamination after he left. There was no use of a step-off pad or replaceable surface walkway was not used. The next evacuee was directed to use **the** same path. Effective contamination control was not in place.

Possible Cause: Clean and contaminated walkways were not appropriately identified at the initial monitoring point. Procedures did not call for the monitoring of walkways after contamination was detected.

Reference: NUREG-0654 J.10.h; J.12; K.5.a, Interim REP Manual, dated **August** 2002.

Effect: Contamination **would** be spread to other evacuees who may not have been contaminated.

Recommendation: Provide training for monitoring personnel on actions to take when contamination is identified. Revise procedures to reflect the process that was implemented for the re-demonstration. Provide visual aids for monitoring personnel to ensure these critical steps are consistently performed. Provide a supply of shoe covers

and contaminated material waste hag at this iocation.

Corrective Actions Demonstrated: A re-demonstration was performed successfully after the Unified Command reviewed this problem and provided direction to monitoring staff. Clean and contaminated flow paths were implemented. Use of removable surface of brown paper was simulated at the entrance and exit of the portal monitor. A change of the simulated removable surface and checking of the monitor was demonstrated after foot contamination was found.

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

The following is a list of the acronyms and abbreviations. which may have been used in this report.

ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
BRC	Bureau of Radiation Control
CFR	Code of Federal Regulations
DEM	Division of Emergency Management
DHHS	Department of Health and Human Services
DOH	Department of Health
EAS	Emergency Alert System
ENC	Emergency News Center
EOC	Emergency Operation Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FPL	Florida Power and Light
FR	Federal Register
FRERP	Federal Radiological Emergency Response Plan
FRMAC	Federal Radiological Monitoring and Assessment Center
F-SERT	Forward State Emergency Response Team
GE	General Emergency
ICF	ICF Consulting, Incorporated
KI	Potassium Iodide
MERL	Mobile Emergency Radiological Laboratory
NRC	Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, November 1980*

ORO	Offsite Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIO	Public Information Officer
RAC	Regional Assistance Committee
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RACES	Radio Amateur Civil Emergency Services
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SOP	Standard Operating Procedure
SMRAP	Southern Mutual Radiation Assistance Plan
TCP	Traffic Control Point(s)

APPENDIX 2

EXERCISE EVALUATORS

The following is a list of the personnel who evaluated the St. Lucie Nuclear Power Plant exercise on February 18, 2004. The organization represented by each evaluator is abbreviated below.

DHS/FEMA	- Department of Homeland Security - Federal Emergency Management Agency
FDA	- Food & Drug Administration
ICF	- ICF Consulting. Incorporated
NRC	- Nuclear Regulatory Commission

EVALUATION SITE	EVALUATOR	ORGANIZATION
STATE OF FLORIDA		
State Emergency Operations Center	Pat Tenorio	DHS-FEMA HQ
Forward State Emergency Response Team	Larry Robertson Roy Smith	DHS-FEMA ICF
Emergency News Center	Bill Larrabee Quirino Iannazzo	ICF ICF
Dose Assessment	Robert Trojanowski	NRC
Emergency Operations Facility	Robert Trojanowski	NRC
Radiological Field Monitoring Teams	Deborah Blunt Edward Wojnas	ICF ICF
Radiological Laboratory	James Hickey	ICF
St. LUCIE COUNTY		
Emergency Operations Center	Stan Copeland James McClanahan	DHS-FEMA ICF
Protective Action for Schools	Bill Larrabee Ernie Boaze	ICF ICF

Emergency Worker Decontamination	Roy Smith Rosemary Samsel Bill Neidernieyer	ICF ICF ICF
Traffic Control Points	Rob Noecker	ICF

MARTIN COUNTY

Emergency Operations Center	Robert Perdue Rosemary Samsel Tom Trout	DHS-FEMA ICF FDA
Protective Action for Schools	Ernie Boaze	ICF
Emergency Worker Decontainination	Roy Smith Rosemary Samsel Rill Neidermeyer	ICF ICF ICF
Traffic Control Pints	Rill Neidermeyer	ICF

INDIAN RIVER COUNTY

Reception Center	Rosemary Samsel Bill Neidemieyer Bill Larrabee	ICF ICF ICF
Congregate Care	Roy Smith	ICF
Traffic Control Points	Roy Smith	ICF

BREVARD COUNTY

Reception Center	Roy Smith Bill Neidermeyer Rosemary Samsel	ICF ICF ICF
Congregate Care	Robert Perdue	DHS-FEMA
Traffic Control Points	Robert Perdue	DHS-FEMA

PALM BEACH COUNTY

Reception Center	Bill Neidermeyer	ICF
	Rosemary Samsel	ICF
	Roy Smith	ICF
Congregate Care	Robert Perdue	DHS-FEMA
Traffic Control Points	Robert Perdue	DHS-FEMA

APPENDIX 3

EXERCISE CRITERIA AND EXTENT-OF-PLAY AGREEMENT

This appendix contains the exercise criteria and the extent-of-play that were scheduled for denionstration during the Saint Lucie Nuclear Power Plant exercise on February 18.2004.

A. Exercise Evaluation Area Criteria

(In Final Report Only)

B. Extent-of-play Agreement

The extent-of-play agreement on the following pages was submitted by the State of Florida. and was approved by **FEMA** Region IV. The extent-of-play agreement includes any significant modification or change in the level of demonstration of each criterion listed.

(In Final Report Only)

1. EMERGENCY OPERATIONS MANAGEMENT

1.a – Mobilization:

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities **in** a **timely manner. (NUREG-0654, A.4;D.3, 4; E.1, 2; H.4)**

Extent of Play

Responsible OROs should demonstrate the capability to receive notification of an emergency situation from tlie licensee, verify the notification, and contact, alert, and mobilize key emergency personnel in a timely iiianner. Responsible OKOs should demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations. Activation of facilities should be completed **in** accordance with the plan and/or procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the extent-of-play agreement, at those facilities located beyond a normal commuting distance from tlie individual's duty location or residence. Further, pre-positioning of staff for out-of-sequence demonstrations is appropriate in accordance with the extent-of-play agreement.

All activities must be based on the OKO's plans arid procedures and completed as they would be in an actual emergency, unless noted above or otlienvise indicated in tlie extent-of-play agreement.

Martin: Martin County's 24-hour answering point will answer and fill out the Florida Notification Form with the information provided by the utility. The answering point will then provide a copy to, or read the copy to Emergency Management Staff.

St. Lucie EOC: All personnel will **he** *pre-positioned. Response to Florida Power & Light 's Emergency Operations Facility will be scenario driven*

BRC: RRC will pi-rj~osiriarr fieltl*teams, the mobile laboratory and sample prep vehicle. EOF personnel will arrive within 1-hour after the Alert emergency classification declaration.*

DEM: F-SERT will preposition at the EOF at approximately 8:30 AM in anticipation of the EOF being declared operational.

DEM: SEOC personnel will begin arriving by 9:00 AM in anticipation of a Site Area Emergency.

Brevard: N/A
Indian River: N/A.
Palm Beach: N/A

1. EMERGENCY OPERATIONS MANAGEMENT

1.a – Mobilization:

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel arid activate facilities in a timely manner. (NUREG-0053, A.4;D.3, 4; E.1, 2; H.4)

Extent **of Play**

Responsible OROs should demonstrate the capability to receive notification of an emergency situation from the licensee, verify the notification, and contact, alert. and mobilize key emergency personnel in a timely manner. Responsible OROs should demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations. Activation of facilities should be completed in accordance with the plan andior procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the extent-of-play agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. Further, pre-positioning of staff for out-of-sequence demonstrations is appropriate in accordance with the extent-of-play agreement.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County's 24-hour answering point will answer and fill out the Florida Notification Form with the information provided by *the utility. The answering point will then* ***provide*** *a* copy *to, or read the copy to Emergency Management Staff.*

St. Lucie EOC: All personnel will be pre-positioned. Response to Florida Power & Light's Emergency Operations Facility will he scenario driven

BRC: BRC will preposition field teams, the mobile laboratory and sample ***prep*** *vehicle. EOF personnel will arrive within 1-hour after the Alert emergency classification declaration.*

DEM: *F-SERT will preposition at the EOF at approximately 8:30 AM in anticipation of the EOF being declared operational.*

DEM: SEOC personnel will begin arriving by 9:00 AM in anticipation of a Site Area Emergency.

Brevard: N/A
Indian River: N/A.
Palm Beach: N/A

1.b -- **Facilities:**

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG-0654, H.3)

Extent of Plav

Facilities will only he specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible OROs should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation: backup power andior alternate facility (if required to support operations).

Facilities must be set up based on the ORO's plans and proccdiires and demonstrated as they would be used in an actual eniergency, unless noted above or otherwise indicated in the extent-of-play agreement.

BRC: BRC will follow procedures us stated in SOPs

Martin: N/A

St. Lucie: In agreement

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

1.c – **Direction and Control:**

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible (NUREG-0654, A.1.d; A.2.a, b)

Extent of Play

Leadership personnel should demonstrate the ability to carry out essential functions oftlie response effort, for example: keeping the staff informed through periodic briefings andior other means, coordinating with other appropriate OROs, and ensuring completion of requirements and requests.

Ail activities associated with direction and control must he performed based on the ORO's plans and procedures and completed as they would be in an actual emergency,

unless otherwise noted above or indicated in the extent-of-play agreement.

Martin: Direction and control will be demonstrated in the EOC by the Director of Emergency Management, and the Radiological Emergency Plan Administrator. The Director of Emergency Services will direct operations of Martin County's staff at the EOF.

St. Lucie: In agreement

BRC: BRC will follow procedures as stated in SOPs

DEM: (SEOC, F-SERT) In agreement.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

1.d – Communications Equipment:

Criterion **1.d.1: At least two** communication systems are available, **at least** one operates properly, and communication links **are** established and maintained **with** appropriate locations. Communications capabilities **are** managed **in** support **of** emergency operations. **(NUKEG-0654,** F.1, 2)

Extent **of Play**

OROs will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise. If a communications system or systems are not functional, but exercise performance is not affected, no exercise issue will be assessed. Communications equipment and procedures for facilities and field units should be used as needed for the transmission and receipt of exercise messages. **All** facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OKOs should demonstrate the capability to manage the communication system and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations. OKOs should ensure that **a** coordinated communication link for fixed and mobile medical support facilities exists. The specific communications capabilities of OROs should be commensurate with that specified in the response plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system, as negotiated in the extent-of-play agreement.

All activities associated with the management of communications capabilities must be demonstrated based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless otherwise noted above or in the extent-of-play agreement.

Martin: Primary communications will be held on commercial telephone, augmented by cellular phones. Back-up systems are 800Mhz radio, and ARES-RACES radio.

St. Lucie: In Agreement

BRC: BRC will use communications equipment as stated in SOPs.

DEM: (SEOC, F-SERT) In agreement.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

1.e – Equipment and Supplies to Support Operation:

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654, H.7,10; J.10.a, b, e, J.11; K.3.a)

Extent of Plav

Equipment within the facility (facilities) should be sufficient and consistent with the role assigned to that facility in the ORO's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged.

All instruments, should be inspected, inventoried. and operationally checked before each use. Instrunients should be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV–700 series instruments and other instruments without a manufacturer's recommendation should be calibrated annually. Modified CDV-700 instruments should be calibrated in accordance with the recommendation of the modification manufacturer. **A** label indicating such calibration should be on each instrument or calibrated frequency can be verified by other means. Additionally, instruments being used to measure activity should have a range of readings sticker affixed to the side of the instrument. The above considerations should be included in 4.a.1 for field team equipment; 4.c.1 for radiological laboratory equipment (does not apply to analytical equipment); reception center and emergency worker facilities' equipment under 6.a.1; and ambulance and medical facilities' equipment under 6.d.1.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate direct-reading dosimetry should allow individual(s) to read the administrative reporting limits and maximum exposure limits contained in the OKO's plans and procedures.

Dosimetry should be inspected for electrical leakage at least annually and replaced, if necessary. CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replaced if necessary. This leakage testing will be verified during the exercise, through documentation submitted in the Annual Letter of Certification, and/or through a staff assistance visit.

Responsible OROs should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers: as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/or procedures. members of the general public (including transients) within the plume pathway EPZ.

Quantities of dosimetry and KI available and storage locations(s) will be confirmed by physical inspection at storage location(s) or through documentation of current inventory submitted during the exercise, provided in the Annual Letter of Certification submission, and/or verified during a Staff Assistance Visit. Available supplies of KI should be within the expiration date indicated on KI bottles or blister packs. As an alternative, the ORO may produce a letter from a certified private or State laboratory indicating that the KI supply remains potent, in accordance with U.S. Pharmacopoeia standards.

At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones and signs, etc.) should be available or their availability described.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency. unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Maps, dosimetry and visual aids will be used in the EOC as needed, more information can be gathered by interview as needed. Survey instruments dosimeters, and KI were till checked during site visits

St. Lucie: Demonstration of equipment and supplies to support the Emergency Operations Center will be scenario driven during the exercise. Inspection of instruments, dosimeters and KI will be conducted during a FEMA site visit scheduled for December 8, 2003. *A* report of the *visit will be available for review upon request. If the visit is cancelled, inspection of instrumentation and KI will be conducted during the evaluation.*

RRC: Will rise equipment and supplies as stated in the SOPs.

DEM: The SEOC will have sufficient equipment to support their *mission as defined in the REP Plan.*

DEM: The F-SERT will have sufficient equipment to support their mission as defined in the REP Plan. Dosimetry and *KI will not be distributed from the SEOC or from the EOF.*

A discussion on issuance of dosimetry and KI to State Emergency Workers can be provided by the REP technical Expert at the EOF, if necessary.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

2. PROTECTIVE ACTION DECISION MAKING

2.a – Emergency Worker Exposure Control:

Criterion 2.a.1 : OROs use a decision making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. **(NUREG-0654, K.4, J.10.e, f)**

Extent of Play

OROs authorized to send emergency workers into the plume exposure pathway EPZ should demonstrate a capability to meet the criterion based on their emergency plans and procedures.

Responsible OROs should demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of preauthorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels.

As appropriate, OROs should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure, based on the ORO's plan andior procedure:; or projected thyroid dose compared with the established Protective Action Guides (PAGs) for KI administration.

All activities must be based on the OKO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Washdown, Decon, and Field Exposure Control will be demonstrated out of sequence. KI decision making will occur in the EOF, and EOC, if driven by the scenario Decisions to allow exposure above authorized levels can be evaluated by interview.

St. Lucie: In agreement

BRC: BRC will use dosimetry and instrumentation as stated in SOPs.

DEM F-SERT: Information relative to State Emergency Worker exposure control will be provided through discussions with the REP technical Expert in the EOF, if necessary.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

2.b- Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency:

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654, I.8, 10 and Supplement 3)

Extent of Play

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO should demonstrate the capability to use appropriate means. described in the plan and/or proccdurcs, to develop protective action recommeiidations (PAR) for decision-makers based on available information and recommendations from the licensee and field monitoring data, if available.

When release and meteorological data are provided by the licensee, the ORO also considers these data. The ORO should demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available arid the need for assessments to support the PARs appropriate to the scenario. In all cases, calculation of projected dose should he demonstrated. Projected doses should be related to quantities and units of the PAG to which they will be compared. PARs should be promptly transmitted to decision-makers in a prearranged format.

Differences greater than a factor of 10 between projected doses by the licensee and the ORO should be discussed with the licensee with respect to the input data and assumptions used, the use of different models, or other possible reasons. Resolution of these differences should he incorporated into the PAR if timely and appropriate. The ORO should demonstrate the capability to use any additional data to refine projected doses and exposure rates arid revise the associated PARs.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

BRC: BRC will use RASCAL dose assessment code as stated in SOPs.

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

Criterion 2.b.2: A decision-malting process involving consideration of appropriate factors and necessary coordination *is* used to make protective action decisions (PAD) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654, J.9, 10.f, in)

Extent of Plav

Offsite Response Organizations (OROs) should have the capability to make both initial and subsequent PADs. 'Theyshould demonstrate the capability to make initial PADs in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and PARs from the utility and ORO staff.

The dose assessmcnt personnel may provide additional PARs based on the subsequent dose projections, field nionitoring data, or infomiation on plant conditions. The decision makers should denionstrate the capability to change protective actions as appropriate based on these projections.

If the ORO has detemiined that KI will be used as a protective nieasure for the general public under offsite plans, then the ORO should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement sheltering and evacuation. This decision should be based on the ORO's plan and/or procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision making process should involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision-making, OROs should communicate and coordinate PADs with affected OROs. OKOs should demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

All decision-making activities by ORO personnel must be performed based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County-KI decisions are the responsibility of the state. Evacuation and or sheltering will be determined based on PARs, local information, by the county decision maker at the EOF, coordinated and validated with the EOC and St. Lucie County. Threshold KI would be included in the PARs, or independently determined, and recommended by BRC.

St. Lucie: This objective will be scenario driven. Procedures not observed will be accomplished through interview with appropriate personnel in the Florida Power and Light Emergency Operations Facility and the St. Lucie County Emergency Operations Center.

BRC: BRC will use RASCAL dose assessment code as stated in SOPs.

DEM F-SERT: In Agreement

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

2.c –Protective Action Decisions **for** Protection **of Special** Populations:

Criterion **2.c.1:** Protective action decisions are made, as appropriate, **for** special **population** groups. **(NUREG-0654, J.9, J.10.d, e)**

Extent of Plav

Usually, it is appropriate to implement evacuation in areas where doses are projected to cxcccd the lower end of the range of PAGs, except for situations where there is a high-risk environment or where high-risk groups (e.g., the immobile or infirm) are involved. In these cases, examples of factors that should be considered are: weather conditions, shelter availability, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations where an institutionalized population cannot be evacuated, the administration of KI should be considered by the OROs.
Applicable OROs should demonstrate the capability to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students. Contacts with public school systems/districts must be actual.

In accordance with plans and/or procedures. OROs and/or officials of public school systems/districts should demonstrate the capability to make prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (that is, either accepts automatically or gives heavy weight to) protective action recommendations made by ORO personnel, the ECL

at which these recommendations are received, preplanned strategies for protective actions for that ECL, and the location of students at the time (for example, whether tlie students are still at home, en route to the school, or at the school).

All decision-making activitics associated with protective actions, including considel-ation of available resources, for special population groups must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County will make decisions on Special Needs and Schools based of plant conditions, plant trends, PARs and local conditions.

St. Lucie: Actual initial notification will he made to the St. Lucie School District Superintendent and the Transportation Director. All other calls will he simulated.

Brevard: NL4

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

2.d. – Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway

Criterion 2.d.l: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO planning criteria. (NUREG-0654, I.8., J.I1)

Extent of Play

It is expected that the ORO will take precautionary actions to protect food and watcr supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans and procedures. Often such precautionary actions are initiated by tlie OROs based on criteria related to the facility'semergency classification levels (ECL). Such actions nray include recommendations to place milk animals on stored feed and to use protected water supplies.

The ORO should use its procedures (for example. development of a sampling pian) to assess the radiological consequences of a release on the food and water supplies. The ORO assessment should include the evaluation of the radiological analyses of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas, the characterization of the releases from the facility, and the extent of areas potentially impacted by the release. During this assessment, OKOs should consider the use of agricultural and watershed data within tlie 50-

mile EPZ. The radiological impacts on the food and water should then be compared to the appropriate ingestion PAGs contained in the ORO's plan and/or procedures. (The plan and/or procedures may contain PAGs based on specific dose commitment criteria or based on criteria as recommended by current Food and Drug Administration guidance.) Timely and appropriate recommendations should he provided to the ORO decision-makers group for implementation decisions. As time permits, the ORO may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO should demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other infomiation available. Any such decisions should be communicated and to the extent practical, coordinated with neighboring and local OROs.

OROs should use Federal resources, as identified in tlie Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, nuclear insurers. etc), if available. Evaluation of this criterion will **rake** into consideration the level of Federal and other resources participating.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Martin: Martin County will *provide inject in the EOC for law enforcement and agricultural agencies for practice and training. Not for evaluation*

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

2.e. – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return

Criterion 2.e.1: Timely relocation, re-entry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures. (NUREG-0654, A.1.b., 1.10; M.1)

Extent of Plav

Relocation: OROs should demonstrate tlie capability to estimate integrated dose in contaminated areas and to compare these estimates with PAGs. apply decision criteria for relocation of those

individuals in the general public who have not been evacuated but where projected doses are in excess of relocation PAGs and control access to evacuated and restricted areas. Decisions are made for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess **of** the **PAGs.** Determination of areas to he restricted should be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates vs. the PAGs and field samples of vegetation and soil analyses.

Re-entry: Decisions should be made regarding the location of control points and policies regarding access and exposure control for emergency workers and members of the general public. who need to temporarily enter tlie evacuated area to perfomi specific tasks or missions.

Examples of control procedures are: the assignment of, or checking for direct-reading and non-direct-reading dosimetry for emergency workers; questions regarding tlie individual's objectives and locations expected to be visited and associated time frames; availability of maps and plots of radiation exposure rates; advice on areas to avoid; and procedures for exit including: monitoring of individuals, vehicles, arid equipment; decision criteria regarding decontamination and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Responsible OROs should deliionstrate the capability to develop a strategy for authorized re-entry of individuals into the restricted zone, based on established decision criteria. OROs should demonstrate the capability to modify those policies for security purposes (e.g., police patrols), for maintenance of essential services (e.g., fire protection and utilities). and for other critical functions. They should demonstrate the capability to use decision making criteria in allowing access to the restricted zone by the public for various reasons. such as to maintain property (e.g., to care for farm animals or secure machinery for storage), or to retrieve important possessions. Coordinated policies for access and exposure control should be developed among all agencies with roles to perform in the restricted zone. OROs should demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed re-entry to the restricted zone. The extent that OROs need to develop policies on re-entry will be determined by scenario events.

Return: Decisions are to be based on environmental data and political boundaries or physical/geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is pennitted to the boundary of the restricted area that is based on the relocation PAG.

Other factors that the ORO should consider are, for example: conditions that permit the cancellation of the Emergency Classification Level and the relaxation of associated restrictive measures; basing return recommendations (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis) on measurements of radiation from ground deposition; and the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are: medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Martin: Martin County-Not for Evaluation, will address and discuss theses issues if driven by the scenario.

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

3. PROTECTIVE ACTION IMPLEMENTATION

3.a – Implementation of Emergency Worker Exposure Control:

Criterion 3.a.1 : The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and ut the end of each mission read their dosimeters and record the readings on the appropriate exposure record *or chart.* (NUREG-0654, K.3.a, b)

Extent of Play

OROs should demonstrate rhe capability to provide appropriate direct-reading and pernianent record dosimetry, dosimeter chargers, and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (that are pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure limits (for those emergency workers involved in life saving activities) contained in the ORO's plans and procedures, Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the OKO's plan andior procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, eniergeney workers should denionstrate the procedures to be followed when administrative exposure limits and turnback values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. OROs should denionstrate the actions described in the plan

and/or procedures by determining whether to replace the worker. to authorize the worker to incur additional exposures or to take other actions. If scenario events do not require emergency workers to seck authorizations for additianal exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed and at what exposure levels. Emergency workers may use any available resources (e.g., written procedures and/or coworkers) in providing responses.

Although it **is** desirable for all emergency workers to each have a direct-reading dosimeter, tliere may be situations where team members will be in close proximity to each other during the entire mission and adequate control of exposure can be effected for all members oftlie team by one dosimeter woni by the team Icader. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. It should he noted that, even in these situations, each team member must still have their own permanent record dosimetry.

Individuals without specific radiological response missions, such as fanners for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County will demonstrate Emergency Worker Exposure Control out of sequence at Fire Station 14 at **tlie** *southern* **erid** *of Hutchison Island. Dosimetry will he 0-20 REM And 0-200 mREM. TLD holders will he used to simulate TLDs, Candy will be used to represent KI. Personnel* **will** *demonstrate a washdown and decon operation. Personnel will demonstrate the use of survey instruments, and use and read self reading dosimeters. Any criteria* **riot** *seen by evaluators* **will** *be determined by interview.*

St. Lucie: This demonstration will he out of sequence and will occur during the emergency wash down drill on January 21, 3004. All emergency workers will receive the appropriate dosimetry as specified in tlie REP Plan. Dosimeter badges **will** *he simulated* **with** *plastic badges. KI pills will he simulated with aspirin tablets. Any procedures not observed during the demonstration will he addressed by interview.*

Brevard: Brevard County will demonstrate on January 22, 2003 at tlie I-95 Rest Stop **Site.**

Indian River: Indian River County demonstration of Implementation of Emergency Worker Exposure Control will take place out of sequence on January 22, 2004 at the

Indian River County Regional Park/Sebastian River Middle School 9450 C.R. 512, Sebastian Fl.

Palm Beach: Palm Beach County demonstration of Implementation of Emergency Worker Exposure Control will take place out of sequence on January 20, 2004 at John Prince Park.

BRC: BRC will use dosimetry and instrumentation as stated in SOPs

DEM: N/A

3.b – Implementation of KI Decisions

Criterion 3.b.1 : KI and appropriate instructions are available should *a* decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained. (NUREG-0654, E. 7., J. 10. *e.*, f.)

Extent of Plav

OKOs should demonstrate the capability to make KI available to ernergency workers, institutionalized individuals, and, where provided for in the ORO plan and/or procedures, to members of the general public. OKOs should demonstrate the capability to accomplish distribution of KI consistent with decisions made. Organizations should have the capability to develop and maintain lists of emergency workers and institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. The ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI is not necessary. OROs should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it. If a recommendation is made for the general public to take KI, appropriate information should be provided to the public by the means of notification specified in the ORO's plan and/or procedures.

Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished by an interview with the evaluator.

All activities must be based on the ORO's plans and procedures and completed, as they would he ***in*** an actual emergency, unless noted above or otlienvise indicated in the extent of play agreement.

Martin: Martin County-Emergency ***Worker*** *KI decisions will be made at* ***the*** *EOC. RRC will provide close projections, EOC staff will determine if field personnel are in the affected areas. Personnel knowledge of KI will he determined by interview at the washdown, decon sire.*

St. Lucie: This procedure ***will*** *be scenario driven. Demonstration will he done through interview with appropriate EOC personnel.*

BRC: BRC will use potassium iodide as stated in SOPs.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

3.c – Implementation of Protective Actions for Special Populations:

Criterion 3.c.1: Protective action decisions **are implemented for special populations other** than **schools within areas subject to protective actions. (NUREG-0654, J.10.c, d, g)**

Extent of Play

Applicable OKOs should denionstrate the capability to alert and notify (for example, provide protective action recommendations and emergency infomiation and instructions) special populations (hospitals, nursing homes, correctional facilities, mobility impaired individuals, transportation dependent, etc.). OKOs should demonstrate the capability to provide for the needs of special populations in accordance with the ORO's plans and procedures.

Contact with special populations and reception facilities may he actual or simulated, as agreed to in the Extent of Play. Some contacts with transportation providers should he actual, as negotiated in the extent of play. **All** actual and simulated contacts should be logged.

All implementing activitics associated with protective actions for special populations must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County will provide a current Special Needs client roster, The Special Needs Coordinator and Transportation Coordinator will he available for interview. All of their actions during the **drill** *will he simulations. There will he no actual contact with Special NeedsClients. Any elements of this criteria riot observed may he determined by interview.*

St. Lircie: A current list of special needs population will be provided to **tire** *St. Lucie County evaluator(s) for* **review.** *Evacuation/relocation requirements will he demonstrated through discussions at the EOC, based on the scenario and county implementation procedures. All calls will* be *simulated.*

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

Criterion **3.c.2: OROs/School** officials implement protective actions **for schools. (NUREG-0654, J.10.c, d, g)**

Extent of **Play**

Public school systems/districts shall demonstrate the ability to implement protective action decisions for students. The demonstration shall be made as follows: **At** least one school in each affected school system or district, as appropriate, needs to demonstrate the implementation of protective actions. The implementation of canceling the school day, dismissing early, **or** sheltering should be simulated by describing to evaluators the procedures that would he followed. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually he demonstrated or accomplished through an interview process. If accomplished through an interview process, appropriate school personnel including decision making officials (e.g., superintendent/principal, transportation director/bus dispatcher). and at least one bus driver (and the bus driver's escort, if applicable) should be available to demonstrate knowledge of their role(s) in the evacuation of school children. Communications capabilities between school officials and the buses. if required by the plan and/or procedures, should be verified.

Officials of the school system(s) should demonstrate the capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the inedia on the status of protective actions for schools.
The provisions of this criterion also apply to any private schools, private kindergartens and day care centers that participate in REP exercises pursuant to the OKO's plans and procedures as negotiated in the extent-of-play agreement.

All activities must be based on tlie ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County-School district personnel **will** *be in the EOC, and will take actions* **to** *safeguard students and staff. If for some unforeseen reason* **district** *personnel can not be in* **tlie** *EOC* **they** *will be contacted via phone and directed to take the appropriate actions. Martin County does riot intend to have a bus driver available for*

interview, The School District representative in the EOC will identify that all of the transportation employees do in fact know where the 3 schools are in the EPZ, and where the host schools are.
Out of Sequence: Evaluator(s) will conduct interviews with school official at the Jenson Beach Environmental Study Center on Jan 21 at 9:30 AM.

St. Lucie: Scenario driven. School officials in the emergency operations center will simulate required actions following local procedures. Calls to affected schools will be simulated. The Emergency Operations Center Coordinator will notify the School District Superintendent and Transportation Director IAW local procedures. Procedures not observed will be addressed by interview. Out of sequence: Evaluator(s) will conduct interviews with school principles or their designee at 15 public schools to demonstrate their knowledge of evacuation plans. The interviews will be conducted during the week of January 19, 2004. Schools to be visited are:

North Port Middle	*Fort Pierce Central High*	*Forest Grove Middle*
Dale Cassens	*Parkway Elementary*	*Dan McCarty Middle*
Lawnwood Elem.	*Fairlawn Elementary*	*Fort Pierce School of the Arts*
F.K. Sweet Elem.	*Bayshore Elementary*	*Manatee Elementary*
St. Lucie West Middle	*Windmill Point Elem*	*St. Lucie West Centennial High*

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

3.d -- Implementation of Traffic and Access Control.

Criterion 3.d.1 : Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654, J.10.g, j)

Extent of Plav

OROs should demonstrate the capability to select, establish. and staff appropriate traffic and access control points, consistent with protective action decisions (for example, evacuating, sheltering, and relocation), in a timely manner. OROs should demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.

Traffic and access control staff should demonstrate accurate knowledge of their roles and responsibilities. This capability may be demonstrated by actual deployment or by interview, in accordance with the extent-of-play agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (rail, water, and air traffic), they should demonstrate the capability to contact the State or Federal agencies with authority to control access.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County-TCP evaluation will take place out of sequence at Fire Station 14 at the same time as decon and washdown are demonstrated. Personnel from Martin County Sheriff's Office, Sewalls Point PD will be there for interview.

St. Lucie: Will demonstrate the objective through interview with law enforcement agencies in the EOC. Two Law enforcement officers in the field, will be called to the EOC for interview by the EOC evaluator.

Brevard: Brevard County will be done by interview with law enforcement on January 22, 2003 at the I-95 Rest Stop Site.

Indian River: Indian River County Sheriff Department will demonstrate implementation of Traffic and Access Control by interview. The interview will take place out of sequence on January 22, 2004 at the Indian River County Regional Park/Sebastian River Middle School 9450 C.R. 512, Sebastian Fl.

Palm Beach: Palm Beach County Sheriff s Office will demonstrate implementation of Traffic and Access Control by interview. The interview will take place out of sequence on January 20, 2004 at John Prince Park. This activity can be re- demonstrated during the evaluation if and when necessary in order to satisfy the requirements of the criteria.

BRC: N/A

DEM: N/A

3.d. – Implementation of Traffic and Access Control

Criterion 3.d.2: Impediments to evacuation are identified and resolved. (NUREG-0654, J.10., k.)

Extent of Play

OKOs should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal

with impediments, such as wreckers, need not be demonstrated; however, all contacts, actual or simulated should be logged.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Martin: Martin County-There will be a number of exercise injects that cause law enforcement and fire rescue personnel to react to traffic impediments. Any additional information required my be determined by interview.

St. Lucie: Will demonstrate this objective through interviews with law enforcement agencies in the EOC.

Brevard: Brevard County will be done by interview with law enforcement on January 22, 2003 at the I-95 Rest Stop Site.

Indian River: Indian River County Sheriff Department will demonstrate implementation of Traffic and Access Control by interview. The interview will take place out of sequence on January 22, 2004 at the Indian River County Regional Park/Sebastian River Middle School 9450 C.R. 512, Sebastian Fl.

Palm Beach: Palm Beach County Sheriff's Office will demonstrate implementation of Traffic and Access Control by interview. The interview will take place out of sequence on January 20, 2004 at John Prince Park. This activity can be re- demonstrated during the evaluation if and when necessary in order to satisfy the requirements of the criteria.

BRC: N/A

DEM: N/A

3.e -- Implementation of Ingestion Pathway Decisions

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. NUREG-0654, J.9, 11.)

Extent of Play

Applicable OROs should demonstrate the capability to secure and utilize current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants and water supply intake points to implement protective actions within the ingestion pathway EPZ. OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedurcs and completed as they would bc in an actual emergency, unless noted above or otherwise indicated in the extent ***of*** play agreement.

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC N/A

DEM: N/A

3.e – Implementation of Ingestion Pathway Decisions

Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654, E.5, 7, J.9, 11.)

Extent of Play

Development of measures and strategies for implementation of ingestion pathway zone (IPZ) protective actions should bc demonstrated by formulation of protective action information for the general public and food producers and processors. This includes the capability for the rapid reproduction and distribution of appropriate reproduction-ready information and instructions to pre-determined individuals and businesses. OROs should demonstrate the capability to control. restrict or prevent distribution of contaminated food by commercial sectors. Exercise play slioulcl include demonstration of communications and coordination between organizations to implement protective actions. However, actual field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the IPZ should be demonstrated, but actual communications with food producers and processors may be simulated.

All activities must be based on the OROs plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in *the* extent of play agreement.

Martin: N/A

Si. Lucie: *N/A*

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

3.f –Implementation of Relocation, Re-entry and Return **Decisions**

Criterion **3.f.1:** Decisions **regarding controlled** re-entry **of** emergency workers and relocation and return **of the public are coordinated** with appropriate organizations **and implemented.** (NUREG-0654, **M.1, 3.)**

Extent *of* Plav

Relocation: OROs should demonstrate the capability to coordinate and implement decisions concerning relocation of individuals, not previously evacuated, to an area where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs should also demonstrate the capability to provide for short-tern1 or long-term relocation of evacuees who lived in areas that have residual radiation levels above the PAGs.

Areas of consideration should include the capability to communicate with OROs regarding timing of actions, notification of the population of the procedures for relocation, and the notification of. and advice for, evacuated individuals who will be converted to relocation status in situations where they will not he able to return to their homes due to high levels of contamination. OKOs sliould also demonstrate the capability to communicate instructions to the public regarding relocation decisions.

Re-entry: OROs sliould demonstrate the capability to control re-entry and exit of individuals who need to temporarily re-enter the restricted area, to protect them from unnecessary radiation exposure and for exit of vehicles and other equipment to control the spread of contamination outside tlie restricted area . Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedure subjects are: (1) the assignment of, or checking for, direct-reading and non-direct-reading dosimetry for eniergency workers; (2) questions regarding the individuals' objectives and locations expected to be visited and associated timeframes; *(3)* maps and plots of radiation exposure rates; (4) advice on areas to avoid; and procedures for exit. including monitoring of individuals, vehicles and equipment. decision criteria regarding contamination, proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Return: OROs should demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs should

denionstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify the procedures and resources for their restoration. Examples ofthese services and facilities are medical and social services, utilities, roads and schools and intermediate tertii housing for reiocated persons.

Communications among OROs for relocation, rc-entry and return may be simulated; however all simulated or actual contacts should be documented. These discussions may be accomplished in a group setting.

OROs should use Federal resources as identified in Ihe FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual eniergency, unless noted above or otherwise indicated in the extent of play agreement,

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

4. FIELD MEA SUREMENT AND ANALYSIS

4.a -- Plume Phase Field Measurements and Analysis:

Criterion 4.a.l: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates. (NUREG-0654, EI.10; 1.7, 8, 9)

Extent of Play

Field teams should be equipped with all instrumentation and supplies necessary to accomplish their mission. This should include instruments capable of measuring gamma exposure rates and detecting the presence of beta radiation. These instruments should be capable of measuring a range of activity and exposure, including radiological protection/exposure control of team members anti detection of activity on the air sample collection media, consistent with the intended use ofthe instrument and the ORO's plans

and proccdures. An appropriate radioactive check source should be used to verify proper operational response for each low range radiation measurement instrument (less than 1 R/hr) and for high range instruments when available. If a source is not available for a high range instrument, a procedure. should exist to operationally test the instrument before entering an area where only a high range instrument can make useful readings.

All activities must be based on the OKO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the exten-of-play agreement.

Martin: Martin County Field Teams will he ***assigned to predetermined sires*** *to take background* ***readings*** *and* ***report to*** *the* ***EOC. Not for*** *evaluation.*

St. Lucie*: N/A*

BRC: ***BRC*** *will* ***use*** *instrumentation* ***and*** *measurement* ***techniques*** *as stated* ***in*** *SOPs.*

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

Criterion 4.a.2: Field teams are managed to obtain sufficient information *to* help characterize the release and to control radiation exposure. (NUREG-0654, H.12; I.8, 11; J.10.a)

Extent of Play

Responsible Offsite Response Organizations (OROs) should demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.

Field measurements are needed to help characterize the release and to support the adequacy of implemented protective actions or to be **a** factor in modifying protective actions. Teams should be directed to take measurements in such locations, at such times to provide infonnation sufficient to characterize tlie plume and impacts.

If the responsibility to obtain peak measurements in the plume has been accepted by licensee field monitoring teams, with concurrence from OKOs, there is no requirement for these measurements to be repeated by State and local monitoring teams. If the licensee teams do not ohtain peak measurements in tlie plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all field teams

(licensee, Federal. and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form, to a radiological laboratory should be demonstrated.

OROs should use Federal resources as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (for example, compacts, utility, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would he in an actual emergency, unless noted above or otherwise indicated in the extent-of-play-agreement.

BRC: BRC will use instrumentation and measurement techniques as stated in SOPs.

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media.(NUREG-0654,I. 9)

Extent of Plav

Field teams should denionstrate the capability to report measurements and field data pertaining to the nieasurenient of airborne radioiodine and particulates and ambient radiation to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses ofthese samples. OROs should share data in a timely manner with all appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan andior procedures,

OROs should use Federal resources as identified in the FRERP, and other resources (for example, compacts, utility, etc.), if available. Evaluation of this criterion will take into

consideration the level of Federal and other resources participating in the exercise. **All** activities must bc must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

BRC: BRC will use instrumentation and measurement techniques as stated in SOPs

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

4.b – Post Plume Phase Field **Measurements** and Sampling

Criterion **4.b.1:** The field teams demonstrate the capability **to make** appropriate measurements **and to** collect appropriate samples **(e.g., food crops, milk, water,** vegetation, and **soil)** to support **adequate** assessments and protective action **decision-making. (NUREG-0654, I.8., J.11.)**

Extent **of Play**

The ORO's field teams should demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support re-entry, relocation, and return decisions. When resources are available, the use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and chain-of-custody fomi for transfer to a laboratory, will be in accordance with the ORO's plan andior procedures.

Ingestion pathway samples sh9uld be secured from agricultural products and water. Samples in support of relocation and return should be secured from soil: vegetation, and other surfaces in areas that received radioactive ground deposition.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be must he based on the ORO's plans and procedures anti completed, as they would he in an actual emergency, unless noted above or otlienvise indicated in the extent of play agreement.

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

4.c — Laboratory Operations

Criterion 4.c.1: The laboratory is capable of performing required radiological analyses *to* support protective action decisions. (NUREG-0654, C.3; J.11)

Extent of Play

The laboratory staff should deliionstrate the capability to follow appropriate procedures for receiving samples, including logging of information, preventing contamination of the laboratory, preventing buildup of background radiation due to stored saniples, preventing cross contamination of samples: preserving samples that may spoil (for example, milk). and keeping track of sample identity. In addition, the laboratory staff should demonstrate the capability to prepare samples for conducting measurements.

The laboratory should he appropriately equipped to provide analyses **of** media, as requested, on a timely basis, of sufficient quality and sensitivity to support assessments and decisions as anticipated by the ORO's plans and procedures. The laboratory (laboratories) instrument calibrations should he traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident should be as described in the plans and procedures. New or revised methods may be used to analyze atypical radionuclide releases (for example, transuranics **OF** as a result of a terrorist event) or if warranted by circumstances of the event. Analysis may require resources beyond those of the ORO.

The laboratory staff should be qualified in radioanalytical techniques and contamination control procedures.

OROs should use Federal resources as identified in the.FRERP, and other resources (for

example, compacts, utility, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

BKC': BRC will use instrumentation and measurement techniques as stated in SOPs

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

DEM: N/A

5. EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

5.a – Activation of the Prompt Alert and Notification System:

Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current FEMA REP guidance. (10 CFR Part 50, Appendix E.IV.D and NUREG-0654, E.5, 6, 7)

Extent of Play

Responsible Offsite Response Organizations (OROs) should demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transientj throughout the IO-mile plume pathway EPZ. Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, completion of system activation should be accomplished in a timely manner (will not be subject to specific time requirements) for priniary alerting/notification. The initial message should include the elements required by current FEMA REP guidance.

Offsite Response Organizations (OROs) with route alerting as the primary method of

alerting and notifying the public should demonstrate. the capability to accomplish the priniary route alerting, following the decision to activate the alert and notification system. **in** a timely manner (will not be subject to specific time requirements) in accordance with the ORO's plan and/or procedures. At least one route needs to be denionstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should be tiemonstrated at least once every six years. All alert and notification activities along the route should he simulated (that is, the message that would actually he used is read for the evaluator, but not actually broadcast) as agreed upon in the extent-of-play. Actual testing of the mobile public address system will be conducted at some agreed-upon location. The initial message should include the elements required by current FEMA REP guidance.

For exercise purposes. timely is defined as "the responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message should be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast ofthe message(s) or test messages *is riot* required. The alert signal activation niay be simulated. However, *the* procedures should be denionstrated up to the point of actual activation.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should he verified during an interview with appropriate personnel from the primary *notification* system.

All activities for this criterion must be based on the ORO's plans and procedures and completed as they would he in an actual emergency, except as noted above or otherwise indicated **in** the extent- of-play agreement.

Martin: Martin County-Will simulate the siren sounding at sire and general emergency and any other time plant condition, or PADs changes warrant. The EOC PIO will have all of the media contact information The Ops Chief, ***arid*** *or* ***the*** *EM Dir. will coor. with St. Lucie Co. and The EOF.*

St. Lucie: Once the final decision to implement protective actions is made for Site Area Emergency, St. Lucie County will activate the 10 mile EPZ Siren System's quarterly test message and will simulate the issuance of the appropriate EAS message IAW local procedures. Any additional requirement to sound sirens and issue FAS messages will be simulated following local procedures.

DEM F-SERT: The F-SERT will play a coordination role only. The F-SERT will not be responsible for the actual sounding of the sirens, nor the EAS messages.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

Criterion 5.a.2: Activation of the Prompt Alert and Notification System
[RESERVED at this time]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, E. 6, Appendix 3.B.2.c)

Extent of Plav

Offsite Response Organizations (OROs) with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5–10 miles from the nuclear power plant should denionstrate the capability *to* accomplish primary alerting and notification ofthe exception area(s) within 45 minutes following the initial decision by authorized offsite emergency official!: to notify the public of an emergency situation. The 45-minute clock will begin when the OROs **make** the decision to activate the alert and notification system for the first time for a specific emergency situation. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to he demonstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should he demonstrated at least once every six years. **All** alert and notification activities along the route sliould be simulated (that is, the message that would actually he used is read for the evaluator, but not actually broadcast) as agreed upon in the extent-of-play Actual testing of the mobile public address system will be conducted at some agreed-upon location.

Backup alert and notification of the public should he completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting only needs to be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the extent-of-play agreement, if the exercise scenario calls for failure of any portion of the primary system(s), or if any portion of the primary system(s) actually fails to function. If demonstrated, only one route needs to he selected and demonstrated. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the

evaluator, but not actually broadcast) as agreed upon in the extent-of-play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

All activities for this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, except as noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County-Will demonstrate Back-up Route Alerting only If there is a failure of any of the outdoor warning sirens in Martin County.

St. Lucie: There are no exception areas within the 10 mile EPZ. Should a siren failure occur at any siren site, backup alert routing for that site will be incorporated into the exercise. Appropriate law enforcement agencies in the EOC will identify units to complete the notification. Notification for dispatching will be simulated. If an actual failure is not experienced, an inject will be used to demonstrate back up alerting capability, as described above.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

5.b - **Emergency Information and Instructions for the Public and the Media:**

Criterion 5.b.1 : OROs provide accurate emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654, E. 5. 7: G.3.a, G.4.c)

Extent of Play

Subsequent emergency inforination and instructions should be provided to the public and the media in a timely manner (will not be subject to specific time requirements). For exercise purposes, timely is defined as "the responsible ORO personnel/representatives denionstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timeiy manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

The ORO should ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information

should contain all necessary and applicable instructions (for example, evacuation instructions, evacuation routes, reception center locations, what to take when evacuating. information concerning pets, shelter-in-place instructions, information concerning protective actions for schools arid special populations, public inquiry telephone number, ctc.) to assist the public in carrying out protective action decisions provided to them. The ORO should also be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident. At a minimum, this information must be included in media briefings andior media releases. OKOs should demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion pathway EPZs. This includes demonstration of the capability io use familiar landmarks and bouridaries to describe protective action areas.

The emergency infomiation should be all-inclusive by including previously identified protective action areas that are still valid, as well as new areas. The OROs should demonstrate the capability to ensure that emergency infomiation that is no longer valid is rescinded and not repeated by broadcast media. In addition, the OROs should demonstrate the capability to ensure that current emergency infomiation is repeated at prc-established intervals in accordance with the plan and/or procedures.

OROs should demonstrate the capability to develop emergency information in a non-English language when required by the plan and/or procedures.

If ingestion pathway measures are exercised, OROs should demonstrate that a system exists for rapid dissemination of ingestion pathway infonnation to pre-determined individuals and businesses in accordance with the ORO's plan andior procedures.

OROs should demonstrate the capability to provide timely. accurate, concise. and coordinated infonnation to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the situation warrants. The OROs should demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and media releases should be consistent with protective action decisions and other emergency information provided to the public. Copies of pertinent emergency infonnatioii (for example, Emergency Alert System [EAS] messages and media releases) and media infonnation kits should be available for dissemination to the media.

OROs should demonstrate that an effective system is in place for dealing with calls to the public inquiry hotline. Hotline staff should demonstrate the capability to provide or obtain accurate infonnation for callers or refer them to an appropriate information source. Information from the hotline staff, including information that correct!: false or inaccurate information when trends are noted. should be included, as appropriate, in emergency information provided to the public, media briefings, andior media releases.

All activities for this criterion must be based on the ORO's plans and procedures and conipleted as they would be in an actual emergency, unless noted above or otherwise

indicated in the extent-of-play agreement.

Martin: Martin County-Will have copies of EAS and news releases available at the ENC for the media. We will staff rumor control lines with 1 person, and generate enough call so that the operator will recognize a trend of errant information and report it to the EOC PIO, who will forward the information to the ENC PIO who will write a release for the media to correct the misperception. The ENC will demonstrate the ability to rescind no longer valid information if driven by the scenario. Any criteria not observed may be determined by interview.

St. Lucie: In agreement.

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

BRC: N/A

DEM: N/A

6. SUPPORT OPERATION/FACILITIES

6.a – Monitoring and Decontamination of Evacuees and Emergency Workers and Registration of Evacuees:

Criterion 6.a.1: The reception center/emergency worker facility *has* appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654,J.10.h: 5.12; K.5.a)

Extent of Plav

Radiological monitoring, decontamination. and registration facilities for evacuees/emergency workers should he set up and demonstrated as they would be in an actual emergency or as indicated in the extent-of-play agreement. This would include adequate space for evacuees' vehicles. Expected demonstration should include 1/3 of the monitoring teams/portal monitors required to inonitor 20% of the population allocated to the facility within 12 hours. Before using monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation.

Staff responsible for the radiologicai monitoring of evacuees should demonstrate the capability to attain and sustain a monitoring productivity rate per hour needed to monitor the 20% emergency planning zone (EPZ) population planning base within about 12 hours. This monitoring productivity rate per hour is the number of evacuees that can be

monitored per hour by tlie total complement of monitors using **an** appropriate monitoring procedure. **A** minimum of six individuals per monitoring station shouid he monitored, using equipment and procedures specified in the plan and/or procedures, to allow demonstration of monitoring, decontamination, and registration capabilities. The monitoring sequences for the first six simulated evacuees per monitoring team will he timed by tlie evaluators in order to determine whether the twelve-hour requirement can be met. Monitoring of emergency workers does not have to meet the twelve-hour requirement. However, appropriate monitoring procedures sliould he demonstrated for a minimum of two emergency workers.

Decontamination of evacuees/emergency workers may be simulated and conducted by interview. The availability of provisions for separately showering should be demonstrated or explained. The staff should demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs and appropriate means (for example, partitions, roped-off areas) to separate clean from potentially contaminated areas. Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition. for any individual found to be contaminated, procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings.

Monitoring personnel should explain tlie use of action levels for determining the need for decontamination. They should also explain the procedures for referring evacuees who cannot he adequately decontaminated for assessment and follow up in accordance with tlie ORO's plans and procedures. Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.

'The capability to register individuals upon completion of the monitoring and decontamination activities should he demonstrated. The registration activities demonstrated should include the establishment of a registration record for each individual, consisting of the individual's name, address, results of monitoring: and time of decontamination, if any, or as otherwise designated **in** the plan. Audio recorders, camcorders, or written records are all acceptable means Cor registration.
All activities associated with this criterion must bc based on the OKO's plans and procedures and completed as they would be in an actual emergency, unless otherwise indicated in the extent-of-play agreement.

Martin: Martin County-Will demonstrate Emergency ***Worker*** *Decontamination out of sequence ut the washdown site . See 6.h.*

St. Lucie: This objective will he demonstrated during the emergency worker/equipment wash down **drill** *017 January 21, 2004. The St. Lucie County* **Fire District** *will demonstrate monitoring 2 emergency personnel, following local procedures.*

Brevard: (For Evacuees and not emergency workers) To take place on January 22, 2003, in the morning hours 9:30 am. Demonstration for monitoring will occur at the Brevard county reception center. Located I –95 rest stop site, interview will deal with procedures for decontamination and movement of evacuees from reception center.

Indian River: Indian River County will demonstrate the Monitoring, Registration and Decontamination of Evacuees. Indian River County will provide to the Indian River County Health Department tables, chairs, signage and tape for the DOH designated KI disbursement areas. All demonstrations will take place out of sequence on January 22, 2004 at1:00 at the Indian River County Regional Park/Sebastian River Middle School 9450 C.R. 512, Sebastian Fl.

Palm Beach: Palm Beach County will demonstrate the Monitoring and Decontamination of 6 evacuees / persons at the John Prince Park Site using volunteers. Registration activities will be demonstrated at the monitoring station. Additionally, Palm Beach County will provide to the Palm Beach County Health Department tables, chairs, signage, tape, and direct decontaminated persons to the DOH designated area for KI disbursement. All demonstrations will take place out of sequence on January 20, 2004 at John Prince Park. This activity can be re- demonstrated during the evaluation if and when necessary in order to satisfy the requirements of the criteria.

BRC: N/A

DEM: N/A

6.b – Monitoring and Decontamination of Emergency Worker Equipment:

Criterion 6.b.1: The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency **worker equipment, including vehicles. (NUREG-0654, K.5.b)**

Extent of Plav

The monitoring staff should demonstrate the capability to inonitor equipment, including vehicles, for contamination in accordance with the Offsite Response Organization's (ORO's) plans and procedures. Specific attention should be given to equipment, including vehicles, that was in contact with individuals found to be contaminated. The monitoring staff should demonstrate the capability to make decisions on the need for decontamination of equipment, including vehicles, based on guidance levels **and** procedures stated in the plan and/or procedures.

The area to be used for monitoring and decontamination should be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping and contamination control measures in place. Monitoring procedures should be demonstrated for a minimum of one vehicle. It is generally not necessary to inonitor the entire surface

of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles should be demonstrated. Interior surfaces of vehicles that were in contact with individuals found to be contaminated should also be checked.

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, may be simulated and conducted by interview.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: Martin County-Will set up it's operation out of sequence at Fire Station 14 on the southern end of Hutcheson Island. Staff will demonstrate vehicle survey, washdown routing of clean and or contaminated vehicles, at least one staff member will be found to be contaminated. The contaminated personnel will be deconned. Vehicles at random will be found to be clean, or contaminated, and may have contaminated personnel onboard. The FEMA evaluator will be ask to identify which vehicles are contaminated when they are in position to make observations, that vehicle's driver will be given injects indicating the location and levels. The FEMA evaluator will also be asked to identify which drivers and or passengers of contaminated vehicles are contaminated when they are in position and ready to observe the demonstration. Injects will be given the participants indicating location and levels of contamination.

St. Lucie: This objective will be demonstrated during the emergency personnel/vehicle wash down demonstration drill on January 21, 2004. The St. Lucie County Fire District will process 2 emergency vehicles, following local procedures.

Brevard: N/A

Indian River: *N/A*

Palm Beach: N/A

BRC: N/A

DEM: N/A

6.c – Temporary Care of Evacuees:

Criterion 6.c.l: Managers of congregate care facilities demonstrate **that the** centers have resources **to** provide services and **accommodations consistent** with American Red Cross planning guidelines. (Found in MASS CARE — Preparedness Operations, ARC **3031). Managers** demonstrate the procedures to assure that evacuees have been monitored for contamination **and have** been decontaminated **as** appropriate prior to entering congregate care Facilities. **(NUREG-0654, J.10.h,** J.12)

Extent of Plav

Under this criterion, demonstration of congregate care centers may be conducted out of sequence with the exercise scenario. The evaluator should conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with ARC 3031. In this simulation, it is not necessary to set up operations as they would bc in an actual cmergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given tlie substantial differences between denionstration and simulation of this objective, exercise demonstration expectations should bc clearly specified in extent-of-play agreements.

Congregate care staff should also denionstrate tlie capability to ensure that evacuees have been monitored for contamination, have been decontaminated as appropriate, and have been registered before entering tlie facility. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would he difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not he physically available at the facility (facilities). However, availability of such items should bc verified by providing the evaluator a list of sources with locations and estimates of quantities.

All activities associated with this criterion must he based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Brevard: To he demonstrated on January 22, 2003, in the morning TBD. At the Brevard County reception center, located at the ***1-95*** *Rest Stop Site.*

Indian ***River:*** *Indian River County demonstration of Temporary Care of Evacuees will take place out of sequence on January 22, 2004 at the Indian River County Regional Park/Sebastian River Middle School 9450 C.R. 512, Sebastian Fl.*

Palm Beach: Palm Beach County demonstration of Temporary Care of Evacuees will take place out of sequence on January 21, 2004 at 8 shelter sites: (Palm Beach Community College Gymnasium, Lake Worth Middle School, Palm Beach Central High School, Boynton Beach High school, Odyssey Middle School, Bear Lakes Middle School, and Watson B. Duncan Middle School). All school inspections must be completed by 3:00 pm on January 21, 2004. The sheltering procedures will be demonstrated through walk throughs of the host shelter facilities, discussion with an American Red Cross representative, and observation of the host shelter facility map to determine that criterion of ARC 3031 are met. Congregate care staff will be able to verbally demonstrate their capability to ensure that evacuees have been monitored for contamination at the reception center prior to entry into the host shelter, that evacuees are registered, and that registration forms are available for inspection by FEMA. Actual set-up of facility and

equipment will not occur at the host sheltering sites. The transportation process for evacuees who were contaminated and, therefore, do not have transportation will be demonstrated verbally through a discussion with the appropriate Palm Tran representative who will be onsite at John Prince Park on January 20, 2003. This activity can be re- demonstrated during the evaluation if and when necessary in order to satisfy the requirements of the criteria.

Martin: N/A

St. Lucie: N/A

BRC: N/A

DEM: N/A

6.d – Transportation and Treatment of Contaminated Injured Individuals:

Criterion 6.d.l: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services *to* contaminated injured individuals. (KCREG-0654, F.2; H.10; K.5.a, b; L.1, 4)

Extent of Plav

Monitoring, decontamination, and contamination control efforts will not delay urgent niedical care for the victim.

Offsite Kesponse Organizations (ORO*s*) should demonstrate the capability to transport contaminated injured individuals to medical facilities. An ambulance should be used for the response to the victim. However, to avoid taking an ambulance out of service for an extended time. any vehicle (e.g., car, truck, or van) may be utilized to transport the victim to the medical facility. Normal communications between the ambulance/dispatcher and the receiving medical facility should be demonstrated. If a substitute vehicle is used for transport *to* the medical facility, this communication must occur before releasing the ambulance from the drill. This communication would include reporting radiation monitoring results, if available. Additionally, the ambulance crew should demonstrate, by interview, knowledge of where the ambulance and crew would he monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed before transport, done enroute, or deferred to the medical facility. Before using a monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation. **All** monitoring activities should be completed as they would he in an actual emergency. Appropriate contamination control measures should he denionstrated before and during transport and at the receiving medical facility.

The medical facility should demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals.

The medical facility should demonstrate tlie capability to make decisions on the need for decontamination of the individual, to follow appropriate decontamination procedures, and io maintain records of all survey measurements and samples taken. All procedures for the collection and analysis of samples and the decontamination of tlie individual should be demonstrated or described to the evaluator.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent-of-play agreement.

Martin: N/A

St. Lucie: N/A

Brevard: N/A

Indian River: N/A

Palm Beach: N/A

RRC: N/A

DEM: N/A

APPENDIX 4

EXERCISE SCENARIO

This appendix contains a summary of the simulated sequence of events, which was used as the basis for invoking emergency response actions by offsite response organizations in the Saint Lucie Nuclear Power Plant exercise on February 18, 2004.

This exercise scenario was submitted by the State of llorida and approved by FEMA Region IV

(lo Final Report Only)

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18,2004

4.1 NARRATIVE SUMMARY

During the turnover briefing, the Operations crew is informed that (1) the 2.4 Component Cooling Water (CCW) Pump is out-of-service (OOS) for an oil change and (2) the Operations Supervisor has requested that the monthly surveillance run of the 2B Emergency Diesel Generator (EDG) begin prior to 0800. The 2B EDG fails to start. This condition places the Unit in a Technical Specification Action Statement.

The Unit 2 Turbine Generator Building (TGB) Gantry Crane is undergoing maintenance. As the crane operator attempts to engage the auxiliary hoist crane, the hook free falls and strikes the C3 phase of the 2B Startup Transformer. The transformer is lost and combined with the earlier loss of the 2B EDG, renders B Train of electric power out-of-service. This condition places the Unit in another Technical Specification Action Statement.

The Reactor Coolant System (RCS) experiences a small break leak which is determined to be in excess of 50 gallons per minute (GPM). The Shift Manager/Emergency Coordinator (EC) declares an ALERT based on the RCS leakage. The Operators initiate a downpower, but experience feedwater control problems and are forced to trip the turbine and reactor. At the trip, the 2B EDC is unavailable and electrical loads are being maintained by the 2A Startup Transformer.

The break on the 2B Hot Leg increases such that the loss of RCS exceeds makeup capacity and the EC declares a SITE AREA EMERGENCY. On the Safety Injection Actuation Signal (SIAS), the 2A Low Pressure Safety Injection (LPSI) Pump shows fluctuating amperage in the Control Room Simulator. The 2A High Pressure Safety Injection (HPSI) Pump is operating normally and provides safety injection to the core.

A bearing problem develops and shuts down the 2.4 HPSI Pump. Re-entry Teams are requested to investigate the loss of the 2A HPSI and 2A LPSI Pumps. The 2A HPSI Pump is not recoverable. The 2A LPSI Pump is found to be air bound. The Re-entry Teams will eventually recover both the 2A LPSI Pump and the 2B EDG, but not before the core is heated to 700°F and gas gap activity is released into the RCS. The potential for release of large amounts of radioactive material prompts the EC to declare a GENERAL EMERGENCY and the Recovery Manager (RM) to recommend protective actions for the general public.

Radioactive material escapes the Reactor Containment Building (RCB), but is filtered and monitored by the Plant Vent prior to release to the atmosphere. Field Monitoring Teams (FMTs) will monitor and track the resulting plume.

With the restoration of the Emergency Core Cooling System (ECCS) and as conditions improve at the plant, the RM will initiate discussions of recovery and re-entry with the off-site officials at the Emergency Operations Facility (EOF).

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18,2004

4.2 SCENARIO TIMELINE

S-TIME[1]	CLOCK[2]	SIMULATOR INSTRUCTION	EVENT NO.	EVENT DESCRIPTION	ANTICIPATED RESPONSE ACTIONS
00/00	0700	Initial Setup - **Restore** IC Set #1 - **Start** 2C CCW **Pump** - Put 2A CCW Pump in "Pull to Lock" position - **Place** ECO **Tag on** 2A CCW Pump Switch - 2A LPSI Pump Air Round Start Recorder	---	Shift Turnover Initial Conditions	The initial conditions establish that Mechanical Maintenance replacing the oil in the 2A CCW Pump and the Operations Crew is about to commence the monthly surveillance of the 2B Emergency Diesel Generator.
00/30	0730	2B EDG	1	2B Emergency Diesel Generator fails to start	NLO checks 2B EDG failure to start.
00/45	0745	2B S/U XFRMR	2	Loss of 2B Startup Transformer	NWE/NLO report damage to the buswork of the 'B' side Startup Transformers.

[1] S-Time = Scenario **time,** which begins at zero
[2] Clock = **Actual** lime, all **times** approximate.

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18,2004

4.2 SCENARIO TIMELINE (continued)

S-TIME[1]	CLOCK[2]	SIMULATOR INSTRUCTION	EVENT NO.	EVENT DESCRIPTION	ANTICIPATED RESPONSE ACTIONS
01/15	0815	RCS Leak	3	Reactor Coolant System Leakage **ALERT Declaration** Due to 1.A: RCS Leakage GREATER THAN 50 gpm 1. *Unisolable RCS leakage as indicated b9 Charging/Letdown mismatch greater than 50 gpm but less than available charging pump capacity.* OR 2. *Unisolable measured RCS leakage indicating greater than 50 gpm but less than available charging pump capacity.*	The EC classifies the emergency in accordance with EPIP-01. The EC completes the Alert Declaration Checklist per EPIP-02. The FPL Emergency Response Organization (ERO) is activated in accordance with EPIP-03. The State and Counties are notified per EPIP-08. The NRC is notified per EPIP-08. The Technical Support Center (TSC) activates in accordance with EPIP-04. The Operational Support Center (OSC) activates in accordance with EPIP-05. The Emergency Operations Facility (EOF) begins preliminary activation in accordance with EPIP-06. Health Physics (HP) implements the HP-200 Emergency Plan implementing procedures and dispatches the 'Red' Field Monitoring Team. Field monitoring activities are initiated in accordance with EPIP-10. The EC duties are turned over in accordance with EPIP-02.

[1] S-Time = Scenario time, which begins at zero.
[2] Clock = Actual time, all times approximate.

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18, 2004

4.2 SCENARIO TIMELINE (continued)

S-TIME[1]	CLOCK[2]	SIMULATOR INSTRUCTION	EVENT NO.	EVENT DESCRIPTION	ANTICIPATED RESPONSE ACTIONS
01/40	0840	None	---	***Contingency Message for the Alert*** (if appropriate)	*No* Limy.
02/20	0920	FCV-9021 Problem	4	Flow Control Valve FCV-9021 creates **feedwater** control problem	Operators are unable to control feedwater, manually trip the turbine and reactor. Operations personnel perform Standard Post Trip Actions (SPTAs) in accordance with 2-EOP-01. Chemistry is requested to sample both Steam Generators (S/Gs) in accordance with 2-EOP-03/15.
03/00	1000	LOCA	5	Large Break **Loss** of Coolant Accident (LOCA) **SITE AHEA EMERGENCY** Declaration Due *to* 1.A: **LOCA** GREATER THAN capacity of charging pumps *1. RCS **leakage** greater than available **charging** pump capacity occurring **with** RCS pressure **above** HPSI shutoff head.*	The EC classifies the emergency *in* accordance with EPIP-01. The EC completes the Site Area Emergency Checklist per EPIP-02. The State and Counties are notified per EPIP-08 The NRC is notified per EPIP-08. The Recovery Manager (RM) declares the EOF operational if he has not already done so. Additional Field Monitoring Teams are dispatched in accordance with EPIP-10. All Re-entry activities are controlled through the OSC in accordance with EPIP-05.

[1] S-Time = Scenario time, which begins at zero.
[2] Clock = Actual time, all times approximate.

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18,2004

4.2 SCENARIO TIMELINE (continued)

S-TIME[1]	CLOCK[2]	SIMULATOR INSTRUCTION	EVENT NO.	EVENT DESCRIPTION	ANTICIPATED RESPONSE ACTIONS
03/00 (continued)	1000	LOCA	5	At the Safety Injection Actuation Signal (SIAS): • 2A High Pressure Safety Injection Pump (HPSI) operational • 2A Low Pressure Safety Injection Pump (LPSI) shows fluctuating amps.	All non-essential personnel are evacuated. The Assembly Area Supervisor is dispatched. NLOs are directed to report to the OSC following completion of immediate operator actions. NRC Site Team is dispatched from Region IV office in Atlanta, GA. NLO to evaluate fluctuating amperage on 2A LPSI Pump.
03/15	1015	None	---	*Contingency Message for the Site Area Emergency*	*No Entry.*
04/30	1130	2A HPSI Loss	6	2A HPSI Pump fails due to a bearing problem.	Re-entry Team is sent to troubleshoot 2A HPSI Pump.
05/30	1230	Insert "Small Rad"	7	CET temperatures > 700°F, initiate release of gas gap activity. Monitored low level release begins through Plant Vent.	Off-site assessment is perfonned in accordance with EPIP-09. Core damage assessment is performed in accordance with EPIP-11. The Problem Solving Team (PST) begins reviewing the Severe Accident Management Guidelines (SAMGs).

[1] S-Time = Scenario time, which begins at zero.
[2] Clock = Actual time, all times approximate.

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18, 2004

4.2 SCENARIO TIMELINE (continued)

S-TIME	CLOCK[1]	SIMULATOR INSTRUCTKON	EVENT NO.	EVENT DESCRIPTION	ANTICIPATED RESPONSE ACTIONS
05/30 continuec	**1230**	Insert "Small Rad"	7	**GENERAL EMERGENCY** Declaration Due *to* 6.A: Increased **Awareness** or potential core melt. ***Emergency Coordinator's judgement that plant conditions exist that make release of large amounts of radioactivity in a short period appear possible or likely (any core melt situation).*** *1. LOCA with **failure** of ECCS leading to **severe core degradation** or melt.*	The EC classifies the emergency in accordance with EPIP-01. The EC completes the General Emergency Checklist per EPIP-02. The RM develops Protective Action Recommendations (PARs) in accordance with EPIP-08. The State and Counties are notified per EPIP-08. The NRC is notified per EPIP-08. Off-site dose assessment is performed in accordance with EPIP-09. Core damage assessment is performed in accordance with EPIP-11. The RM will update the PARs in accordance with EPIP-08. Field Monitoring Teams will track the plume of radioactive material in accordance with EPIP-10.
05/45	1245	None	---	***Contingency Message for General Emergency***	*No Entry.*
06/00	1300	Restore 2A LPSI Insert "Large Rad"	8	2A LPSI pump vented	Operators are able to restore 'A' side ECCS.

[1] S-Time = Scenario **time. which** begins at zero
[2] Clock = Actual time, **all** times approximate.

FLORIDA POWER AND LIGHT COMPANY
ST. LUCIE PLANT
2004 EMERGENCY PREPAREDNESS
EVALUATED EXERCISE
FEBRUARY 18, 2004

4.2 SCENARIO TIMELINE (continued)

S-TIME[1]	CLOCK[2]	SIMULATOR INSTRUCTION	EVENT NO.	EVENT DESCRIPTION	ANTICIPATED RESPONSE ACTIONS
06/15	1315	Restore 2B EDG	9	2B EDG Recovered	Operators able to restore 'B' side ECCS.
06/30	1330	None	---	Recovery/Re-entry	The RM commences discussions of de-escalation of the emergency and recovery/re-entry in accordance with EPIP-06.
07/00	1400	None	---	The Evaluated Exercise is terminated.	All Players and Controllers attend in-facility critiques.

[1] S-Time = Scenario time, which begins at zero.
[2] Clock = Actual time, all times approximate.