



Federal Emergency Management Agency

Washington, D.C. 20472

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MEMORANDUM FOR: Edward L. Jordan
Director, Division of Emergency
Preparedness and Engineering Response
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission

FROM: *Richard W. Krimm*
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Office of Natural and Technological Hazards

SUBJECT: Exercise Report for the September 18, 1985, Exercise
of Offsite Radiological Emergency Preparedness Plans
for Waterford III Steam Electric Station

Attached are two copies of the exercise report for the September 18, 1985, partial participation exercise of the offsite radiological emergency preparedness plans for the Waterford III Steam Electric Station. The exercise report dated December 13, 1985, was prepared by the Region VI staff of the Federal Emergency Management Agency.

There were no deficiencies or areas requiring corrective action identified during this exercise. However, there are several areas recommended for improvement and several uncorrected Category B deficiencies remaining from the February 1984 exercise which will now be identified as areas requiring corrective action. This report will be transmitted to the State of Louisiana and a schedule of corrective actions will be requested. Based on the results of this exercise, FEMA considers that offsite radiological emergency preparedness is adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public living in the vicinity of the site in the event of a radiological emergency. Therefore, the 44 CFR 350 approval granted on July 15, 1985, will remain in effect.

If you should have any questions, please contact Robert S. Wilkerson, Chief, Technological Hazards Division, at 646-2860.

Attachments

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FINAL

RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE REPORT

Nuclear Power Plant: Waterford III Steam Electric Station
Applicant: Louisiana Power and Light Company

Location of Plant: State of Louisiana
St. Charles Parish
Taft, Louisiana

Date of Final Report: December 13, 1985

Date of Exercise: September 18, 1985

Participants: State of Louisiana
St. Charles Parish
St. John the Baptist Parish
Ochsner Hospital
St. Charles Ambulance Service

FEDERAL EMERGENCY MANAGEMENT AGENCY
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ABBREVIATIONS

ANL	-	Argonne National Laboratory
DOE	-	Department of Energy
DOT	-	Department of Transportation
EBS	-	Emergency Broadcast System
EOC	-	Emergency Operations Center
EOF	-	Emergency Operations Facility
EPA	-	Environmental Protection Agency
EPZ	-	Emergency Planning Zone
FEMA	-	Federal Emergency Management Agency
HHS	-	Health and Human Services
JIC	-	Joint Information Center
KI	-	Potassium Iodide
LNED	-	Louisiana Nuclear Energy Division
LOCA	-	Loss-of-Coolant Accident
LOEP	-	Louisiana Office of Emergency Preparedness
LP&L	-	Louisiana Power & Light Company
mR/h	-	Millirems per hour
NRC	-	Nuclear Regulatory Commission
PAG	-	Protective Action Guide
PAR	-	Protective Action Recommendation
PAS	-	Protective Action Section
PIO	-	Public Information Officer
RAC	-	Regional Assistance Committee
RADEF	-	Radiological Defense
RCS	-	Reactor Coolant System
RDO	-	Radiological Defense Officer
REP	-	Radiological Emergency Preparedness
SOP	-	Standard Operating Procedure
USDA	-	United States Department of Agriculture
WIII	-	Waterford III Steam Electric Station

EXERCISE SUMMARY

The Federal Emergency Management Agency (FEMA) evaluated the off-site radiological emergency response capabilities of Louisiana State and local officials in a partial exercise at Waterford III on September 18, 1985. The initial qualifying exercise was conducted on February 8, 1984.

On September 19, 1985, three meetings were held -- a morning meeting with the 17-member Federal evaluation team to conduct a preliminary evaluation; a 1:00 p.m. meeting with Federal, State, local and utility participants to present preliminary findings; and a 5:00 p.m. critique for the general public and media at St. Charles Parish Courthouse, Hahnville, Louisiana.

Section 2 of this document provides Narrative summaries, Deficiencies, Areas Requiring Corrective Actions and Areas Recommended for Improvement for each of the jurisdictions and activities tested by the exercise. A summary in Section 3 provides a listing of Deficiencies which would lead to a negative finding of offsite capabilities and Areas Requiring Corrective Action. The summary is in tabular format and provides space for State and local jurisdiction responses setting forth the proposed corrective actions.

The following summarizes the performances of the State of Louisiana and the local parish governments in this partial exercise.

STATE OF LOUISIANA OPERATIONS

The Louisiana State office of Emergency Preparedness and the Louisiana Nuclear Energy Division, both located at the Emergency Operating Center (EOC) in Baton Rouge, Louisiana, participated in the Waterford III exercise; both demonstrated an adequate level of readiness for dealing with a radiological emergency. The EOC was staffed by major departments according to the plan. Direction of operations was well managed by the Assistant Secretary, Office of Emergency Preparedness in conjunction with the Assistant Secretary, Office of Air Quality and Nuclear Energy, and his staff was effectively involved in decision making.

Physical aspects of the EOC were adequate to support continuous operations. Message boards, maps, and other displays were posted and effectively used to facilitate the State's response function.

With exception of a few problems noted, the communications resources were reasonably effective.

LOCAL GOVERNMENT OPERATIONS

Local governments participating in the exercise were the two parish governments located within the 10-mile EPZ, the St. Charles Parish and and St. John the Baptist

Parish. Both parishes very capably demonstrated the resources, knowledge, and initiative necessary to alert the populace and implement protective actions which would protect the residents in the event of an incident at Waterford III.

Facilities for the parish EOCs were adequate and contained space, equipment, and other resources to support continuous operations. The St. Charles Parish is equipped also with kitchen and bunking facilities for onsite accommodations.

Effectiveness of communications equipment, procedures, and staff was established through the activities of alert/notification and extensive contacts with EOF and other response agencies.

Detailed evaluations of individual performances are provided in Section 2 of this report.

1 INTRODUCTION

1.1 EXERCISE BACKGROUND

On December 7, 1979, the President directed the Federal Emergency Management Agency (FEMA) to assume lead role responsibility for all off-site nuclear power facility planning and response.

FEMA's immediate basic responsibilities in Fixed Nuclear Facility Radiological Emergency Response Planning include:

- Taking the lead in off-site emergency response planning and in the review and evaluation of State and local government emergency plans ensuring that the plans meet the Federal criteria set forth in NUREG-0654 FEMA REP-1, Rev. 1 (November 1980).
- Determining whether the State and local emergency response plans can be implemented on the basis of observation and evaluation of an exercise conducted by the appropriate emergency response jurisdictions.
- Coordinating the activities of volunteer organizations and other involved Federal agencies. Representatives of these agencies listed below serve as members of the Regional Assistance Committee (RAC), which is chaired by FEMA.
 - U.S. Nuclear Regulatory Commission (NRC)
 - U.S. Environmental Protection Agency (EPA)
 - U.S. Department of Energy (DOE)
 - U.S. Department of Health and Human Services (DHHS)
 - U.S. Department of Transportation (DOT)
 - U.S. Department of Agriculture (USDA)

The September 18, 1985 REP exercise was the second exercise of Waterford III. This partial exercise was conducted between the hours of 6:00 a.m. and 4:00 p.m. The 17-member evaluation team included representatives from FEMA Region VI staff, Regional Assistance Committee (RAC), and Argonne National Laboratory (ANL). The exercise was evaluated using the modular format which provides for objective and detailed recording of evaluations.

Following the exercise, the Federal evaluators met on September 19, 1985 at 9:00 a.m. to present their preliminary findings to the FEMA/RAC Chairman. At 1:00 p.m., a critique was conducted for the State, Local and Utility Officials. At this critique the FEMA/RAC Chairman and Federal Evaluators presented a short overview of the preliminary results of the exercise. The public critique of the exercise followed at 5:00 p.m. at the St. Charles Parish Courthouse, Hahnville, Louisiana.

Public meetings have been held on May 3, 1983 in La Place Elementary School Cafeteria for St. John the Baptist Parish residents; and on May 4, 1983, in the St. Charles Parish Courthouse at Hahnville, Louisiana for the St. Charles Parish residents. These meetings were held to acquaint residents living around the Waterford III Nuclear Power Plant with the emergency response plans, to answer questions about the plans and to receive suggestions for improving the plans.

The findings presented in this report were reviewed by the RAC Chairman of FEMA Region VI. FEMA suggests that State and Local jurisdictions take remedial actions in response to identified Deficiencies and Areas Requiring Corrective Action and that the State submit a schedule for addressing these. The Regional Director of FEMA is responsible for certifying to the FEMA Associate Director of State and Local Programs and Support, Washington, D.C., that all deficiencies and Areas Requiring Corrective Actions identified during an exercise have been corrected and that such corrections have been incorporated into State and local plans, as appropriate.

1.2 FEDERAL EVALUATORS

17 Federal evaluators participated in evaluation of this partial, second exercise. These individuals, their agencies, and their evaluation location are listed below:

<u>Evaluator</u>	<u>Agency</u>	<u>Location</u>
Al Lookabaugh	FEMA	Overall Coordination
Jeff Slack	DOE	Emergency Operations Facility (EOF)
Hank May	EPA	Emergency Operations Facility (EOF)
A.J. Foltman	ANL	LP&L Emergency News Center (New Orleans)
Michael Brooks	FEMA	LP&L Emergency News Center (New Orleans)
Jim Levenson	ANL	LOEP Headquarters (Baton Rouge)
Bill Gasper	ANL	LNED Headquarters (Baton Rouge)
Don Fingleton	ANL	St. Charles Parish EOC (Hahnville)
Cheryl Malina	USDA	St. Charles Parish EOC (Hahnville)
Maryetta Cunningham	FEMA	St. John Parish EOC (La Place)
Gary Kaszynski	ANL	St. John Parish EOC (La Place)
Don Newsom	ANL	St. John Parish EOC (La Place)
Jim Cox	DOT	Waterford III Site (On-site Evacuation)
Al Miller	DOT	Waterford III Site (On-site Evacuation)
Phil Edgington	HHS	Ochsner Hospital and St. Charles Ambulance Service (New Orleans)
Leon Zellner	HHS	Ochsner Hospital and St. Charles Ambulance Service (New Orleans)
Gary Jones	FEMA	Ochsner Hospital and St. Charles Ambulance Service (New Orleans)

1.3 EXERCISE OBJECTIVES

The exercise objectives of the State of Louisiana and local communities were to demonstrate that their off-site emergency response plans, operations, and capabilities for mobilizing and coordinating necessary resources were adequate to cope with a radiological emergency incident at the Waterford III Steam Electric Station. The objectives were developed through joint discussions between Louisiana Power and Light Company (LP&L); the Nuclear Regulatory Commission, Region IV; The Federal Emergency Management Agency, Region VI, (FEMA); the Louisiana Nuclear Energy Division (LNED); Louisiana Office of Emergency Preparedness (LOEP); St. Charles and St. John the Baptist Parishes.

1.3.1 Louisiana Power and Light Company Objectives

1. Demonstrate proficiency in classifying the emergency condition.
2. Demonstrate the ability to mobilize emergency response personnel.
3. Demonstrate prompt notifications of emergency classifications and protective action recommendations to off-site agencies.
4. Demonstrate the ability of the LP&L Emergency Response Organization to establish command and control and maintain continuity of command and control throughout the exercise.
5. Demonstrate adequate and effective use of emergency communications equipment and communications procedures and methods.
6. Demonstrate back-up field monitoring team communications.
7. Demonstrate the ability to develop, coordinate, and disseminate timely and accurate public information bulletins.
8. Demonstrate the ability to provide on-site first-aid and obtain appropriate offsite medical care for simulated injured contaminated personnel.
9. Demonstrate the ability to perform on-site and off-site radiological monitoring and assessments and off-site dose projections necessary to provide advance warning to Parish, State and Federal agencies.
10. Demonstrate the adequacy of the LP&L emergency response facilities to support emergency response activities.

11. Demonstrate the ability to perform search and rescue activities within the plant in accordance with established procedures,
12. Demonstrate the ability to conduct High Radiation Area reentry activities within the plant.
13. Demonstrate decontamination of a small group of personnel (1 to 3 persons).
14. Demonstrate coordination of protective action recommendation decision-making activities with Louisiana Nuclear Energy Division in the Emergency Operations Facility (EOF).
15. Demonstrate the following accident mitigation activities: accident analysis and accident mitigation decision making, use of the Post Accident Sampling System to draw a primary sample under postulated accident conditions, sample analysis activities.
16. Demonstrate recovery techniques in the ability of the organization to de-escalate emergency response activities, to re-classify (down-grade) the emergency classification, establish a long-term recovery organization and discuss planning for recovery activities.
17. Demonstrate the ability of the organizations to disseminate information to other participating organizations (Parishes, State and Federal).
18. Demonstrate the ability to perform a site evacuation and off-site assembly by evacuating site personnel to parking lots and sending a select group of personnel to an off-site assembly area.
19. Demonstrate accountability after a site evacuation and continuous accountability for emergency response facilities.
20. Demonstrate security measures at each of the LP&L emergency response facilities.
21. Demonstrate the ability to conduct a post-exercise critique to determine areas requiring additional improvements.

1.3.2 State of Louisiana Exercise Objectives

1. Demonstrate that participating organizations can alert and activate emergency response personnel in a timely and effective fashion.

2. Demonstrate State effectiveness in the direction and control of emergency operations.
3. Demonstrate the activation and use of external communication systems and procedures between the facility, State, and Parish organizations.
4. Demonstrate the activation and use of communications between State EOC and the Field Response Center.
5. Demonstrate LNED's capability for accident assessment and protective action recommendations.
6. Demonstrate that timely and coordinated protective response decisions can be made for the plume exposure pathway EPZ.
7. Demonstrate State capability for alert/notification of the public, institutions, and industry within the plume exposure pathway EPZ.
8. Demonstrate ability to brief the media in a clear, accurate, and timely manner.
9. Test and evaluate utility and State capability for coordinating the release of information to the media and general public.

1.3.3 Parish Exercise Objectives

1. Demonstrate that participating organizations can alert and activate emergency response personnel in a timely and effective fashion.
2. Demonstrate the activation of Parish EOCs and the effectiveness of security, internal procedures, displays and information systems.
3. Demonstrate Parish effectiveness in the direction and control of emergency operations.
4. Demonstrate the activation and use of external communication systems and procedures between the facility, State, and Parish organizations.
5. Demonstrate that timely and coordinated protective response decisions can be made for the plume exposure pathway EPZ.
6. Demonstrate Parish capability for alert/notification of the public, institutions, and industry within the plume exposure pathway EPZ.

7. Demonstrate capability of Parish emergency staff to carry out radiation exposure control measures.
8. Demonstrate ability to effect an orderly evacuation of on-site personnel.
9. Demonstrate capability for implementation of recovery operation.
- *10. Demonstrate the adequacy of ambulance facilities and procedures for responding to a utility request for transporting a contaminated/injured individual.
- *11. Demonstrate the adequacy of hospital facilities and procedures for handling a contaminated/injured individual transported from WIII.

1.4 EXERCISE GUIDELINES

To define the scope and extent of participation by organizations and "players" the following exercise guidelines are established in order to meet the agreed upon objectives:

1. The partial participation exercise will be conducted on September 18, 1985. Exercise "players" will not possess prior knowledge of the exercise start time, all personnel will follow their normal routines for that day.
2. The exercise will commence with a postulated plant condition necessitating a declaration of an Unusual Event and escalate through each of the four emergency classifications to a General Emergency.
3. The postulated accident conditions will result in a simulated radiological release which requires the consideration of protective actions for the general public. Meteorological conditions will be varied throughout the exercise in order that the desired offsite conditions are attained.
4. Exercise participants will perform, as appropriate, radiological monitoring and dose assessment activities.

*Subsequently added after development of scenario following joint agreement between FEMA and State of Louisiana.

5. Radiological monitoring field teams will be dispatched in order that response time, communications, and monitoring procedures may be evaluated.

Each utility radiological monitoring field team will be accompanied by an observer throughout the exercise.

6. The utility media center will be staffed and activated. Members of the media will be invited to participate at this center. Press bulletins will be made which depict simulated exercise events. However, no exercise press bulletins will be made to the public.
7. As appropriate, Emergency Broadcast Station (EBS) announcements will be prepared and passed to the appropriate stations. Local cable TV, WCKW and WKQT will broadcast limited emergency messages.
8. The offsite alert siren system will be activated as part of this exercise.
9. If required by the scenario the treatment of a simulated injured onsite worker will involve the movement of the individual to and full participation by a support medical facility.
10. The postulated accident conditions may warrant the evacuation of non-essential site personnel. If required by the exercise scenario, selected personnel in the areas of the station where the station accountability mechanisms have been implemented will proceed to the selected offsite assembly area. All other non-essential personnel will be evacuated to the station parking lots or accounted for. Once assembly has occurred and accountability procedures have been completed, non-participating personnel will return to their normal work stations.
11. Exercise participants will include the following emergency organizations:

Louisiana Power & Light Company

Onshift Emergency Organization (Control Room)
 Onsite Emergency Organization (TSC - OSC)
 Nearsite Emergency Organization (EOF)
 Offsite Emergency Organization (CCC - ENC)

Off-site Organizations

State of Louisiana

Louisiana Nuclear Energy Division - Limited participation. LNED will staff the Waterford 3 EOF positions.
Louisiana Office of Emergency Preparedness - Limited participation.

St. Charles Parish

Department of Emergency Preparedness - Limited participation.

St. John the Baptist Parish

Office of Civil Defense - Limited participation.

St. Charles Ambulance Service

Transportation of contaminated injured person.

Ochsner Foundation Hospital

Reception and treatment of contaminated injured person.

NRC Region IV will actively participate in the exercise. Region IV personnel will staff the TSC and EOF NRC facilities.

12. Activities, Functions or Operations to be simulated:
 - a. Radiation Monitoring System (RMS)
 - b. SPDS/QSPDS
13. The following systems will not be considered part of this exercise. RMS and SPDS indications will be simulated.
14. In the case that St. Charles Ambulance is not available to respond a licensee-owned vehicle will be staged at the Administrative Building for use in transporting the injured person to the hospital. If it is necessary to use this vehicle the Shift Supervisor/ Emergency Coordinator will be instructed to assign a driver to the vehicle.

If the company vehicle is not used it will be released for normal use following the departure of the ambulance.

15. The postulated accident conditions will not result in the requirement for support by an offsite support fire department.
16. All emergency communications that relate to the exercise shall be clearly identified as part of the exercise. Verbal communications shall be initiated and closed by the statement "THIS IS A DRILL".

NOTE

Care shall be taken to assure that individuals who may overhear or see exercise activities are not misled into believing that an actual emergency situation exists.

17. Valves, breakers and controls shall not be manipulated in response to this drill.
18. Portable fire extinguishers or other sealed canisters or equipment shall not have the seals broken or safety pins removed as part of this drill.
19. Personnel will not, in response to this drill, take any action which jeopardizes plant or personnel safety.
20. In the event an actual emergency occurs during the conduct of this drill, the Emergency Coordinator shall immediately contact the Shift Supervisor and coordinate the available resources to mitigate the emergency.
 - The drill clock and activities can be stopped at the discretion of the Emergency Coordinator and the Shift Supervisor until the actual emergency is assessed and/or under control.
 - Qualified drill participants can be directed to support the Shift Supervisor in response to the emergency.
21. All drill participants who enter the RCA will be radiation worker qualified.
22. Drill personnel will observe all radiological controls. In the event that the data presented in the package indicates a lesser level of radiation than the actual radiological levels, inform immediately the Health Physics Controller and the Lead Controller and actions for the higher reading will be observed.
23. ALARA concepts will be observed during the course of the drill. Activities associated with the performance of the drill will not occur in areas where personnel will receive significant exposures.

1.5 EXERCISE SCENARIO SUMMARY

This exercise was provided to test the integrated response capability of the organizations established to protect the public should an actual emergency occur. As such, the plant sequence of events in this exercise was not to be construed as evidence of the possibility of such an actual event. The exercise was conceived on worst case or extremely unrealistic assumptions necessary to force degradation of support systems that would place the plant in an unstable condition.

In order to achieve a sequence of events that will lead to a significant plant problem, the exercise scenario must contain an incredible plant situation, an unlikely series of equipment failures, or an improbable operator error combined with equipment failures. Therefore, it should be stressed that off-site personnel (e.g., the public) should not be misled into believing that an event of this nature could occur based on the assumptions used to generate the events in this scenario. The following is a summary of these events:

The exercise scenario was based on a series of events which included a medical emergency complicated by radiological contamination, a tornado, loss of the charging system, a loss of off-site power, a Steam Generator Tube Rupture, failed fuel, and a release to the atmosphere via a Main Steam Safety Relief Valve. These events were selected to test the coordinated response to an emergency at Waterford 3.

The plant had been operating at an almost constant 100% power for the previous 60 days and was at the end of a 300 day operating cycle. The Atmospheric Dump Valves (ADVs) were in manual control. The "A" charging pump was out of service for mechanical maintenance; the pump and motor were uncoupled with the discharge relief valve removed for rework. One reactor coolant vent path to the quench tank was out of service.

At approximately 0500 on September 18, 1985 two individuals were working in the Rad Waste Compactor Building. One of the workers became injured and was also contaminated. The injuries were to the extent that immediate medical attention was required. When the survey of injuries was performed it was determined that off-site medical assistance was required. The situation at the scene was complicated by contamination both in the area and on the injured person. In his efforts to assist his injured co-worker, the second individual became contaminated. The contamination of this individual was controlled at the scene of the accident and de-contamination occurred at the -4 MSL decontamination facility.

The transportation of the contaminated injured person resulted in the declaration of an Unusual Event. Activities involving medical response personnel continued until the injured person was at the Hospital and in a stabilized condition.

At about 0720 a tornado approached the plant. The tornado path was from the south through the southwest corner of the Protected Area then up Old Plantation Road to the river. The tornado caused a fault on the alpha side of the 230kv feeder to the main distribution system. Extensive damage was done to several trailers outside of the Protected Area. Limited damage to the neighboring security fence occurred. Damage to the fire pump house was caused both by the tornado and missiles from the damaged trailers. Fire protection system trouble alarms in the Control Room indicated that the jockey and electric fire pump were not operating. Indicators showed that the diesel pumps were running. The observation of the tornado within the Protected Area resulted in the declaration of an Alert emergency classification at about 0730. This declaration led to the mobilization of the On-Site Emergency Organization and the Emergency News Center of the Off-Site Emergency Organization. The TSC and OSC began arriving to staff their respective facilities prior to 0800.

At about 0840 the Control Room began to see symptoms of a decrease in charging system flow.

At about 0900 the load dispatcher (Pine Bluff) contacted the Control Room and informed them that due to problems caused by the severe weather conditions, Waterford 3 was the sole source of power to the local portion of the grid. (If Waterford 3 was taken off line there would be no off-site power to Waterford 3).

By about 0910 it was determined that a loss of the charging system had occurred. This loss of charging resulted in a declaration of a Site Area Emergency. The Near-Site Emergency Organization (EOF) and Corporate Command Center of the Off-Site Emergency Organization was mobilized.

At about 1055, the load dispatcher (Pine Bluff) informed Waterford 3 that other units were also supplying power to the grid and the Waterford 3 may begin to take the unit off line.

At 1100, a differential trip in the active 230kv feeder occurred. This appeared as a load rejection to the generator which caused a loss of off-site power. Rapid coastdown of the RCPs caused a DNBR trip to occur before the RCS over-pressure setpoint was reached. Secondary pressure rapidly increased to the point where all steam line safety/relief valves were open. As pressure decreased the safety/relief valves began to reseal. On Steam Generator #2, one safety/relief valve remained fully open. The excess steam demand caused pressurizer level and pressure to decrease along with secondary pressure and steam generator levels in #2 Steam Generator. Emergency Feedwater Activation Signal (EFAS) occurred and Main Steam Isolation Signal (MSIS) was received due to low steam generator

pressure. The faulted steam generator (#2) pressure continued to fall. Emergency Feed Water flow to #2 Steam Generator was secured. Low RCS pressure caused a Safety Injection Actuation Signal (SIAS).

At 1123, the faulted steam generator (#2) dried out. Concurrent with the dryout of #2 Steam Generator a double-ended tube rupture occurred. These events warranted the declaration of a General Emergency.

As the scenario continued, voiding occurred in the reactor vessel upper head. Attempts to open the Reactor Vessel Vent Valves were unsuccessful. As the plant was cooled, efforts were continued to condense the void in the reactor vessel.

The emergency classification was de-escalated after the safety/relief valves were closed at 1423 and after consideration of other EAL criteria.

After the release was secured, and de-escalation occurred, time constraints made it necessary that the time table be accelerated. Following de-escalation, this portion of the exercise was completed; area critiques were held in each of the facilities. During the area critiques, the drill time was advanced 24 hours. Following the completion of the area critiques, recovery activities were initiated.

The exercise was terminated at about 1730.

1.6 EVALUATION CRITERIA

The Waterford III exercise evaluations that follow in Section 2 of this report are based on applicable planning standards and evaluation criteria set forth in Section II of NUREG 0654-FEMA-1, Revision 1 (November 1980). Region VI evaluated the exercise utilizing the modular format. Federal evaluators were instructed to mark those sections of the report "not applicable" which did not correspond to the objectives for the exercise.

Following the narrative for each jurisdiction or off-site response activity, Deficiencies, Areas Requiring Corrective Actions and Areas Recommended For Improvement are presented with accompanying recommendations. Any identified deficiencies would cause a finding that the off-site preparedness is not adequate to provide reasonable assurance that appropriate protective measures can and will be taken to protect the health and safety of the public living in the vicinity of the site in the event of a radiological emergency. At least one Deficiency in this category would necessitate a negative finding.

Areas Requiring Corrective Actions include those activities where demonstrated performance during the exercise was evaluated and considered faulty; corrective actions are considered necessary, but other factors indicate that reasonable assurance could be

given that in the event of a radiological emergency, appropriate measures can and will be taken to protect the health and safety of the public. This category should be relatively easy to correct in comparison to those classified as Deficiencies.

Areas Recommended for Improvement are also listed as appropriate for each jurisdiction or off-site activity.

2 EXERCISE EVALUATION

On the basis of general criteria set forth in NUREG-0654/FEMA Rep-1/Rev. 1 (November 1980) and exercise objectives and observations, an evaluation has been performed of the partial exercise on September 18, 1985 of the Waterford III Steam Electric Station. This evaluation is presented herein. FEMA Region VI will maintain close liaison with the State and local governments in determining the corrective action (including time frame) needed to resolve the Deficiencies and Areas Requiring Corrective Actions in accordance with established criteria and guidelines. There were no Deficiencies identified during this exercise.

2.1 LOUISIANA STATE OPERATIONS

The following includes the narrative, Deficiencies, Areas Requiring Corrective Actions, Areas Recommended for Improvement, and Evaluator recommendations for the operations of the Louisiana State EOC in Baton Rouge, Louisiana Nuclear Energy Division headquarters, Louisiana Power and Light Emergency News Center and Corporate Command Center, and the Louisiana Emergency News Center.

2.1.1 State EOC (LOEP)

Narrative

The LOEP EOC is located in the basement of the Land and Natural Resources Building in Baton Rouge. Activation and staffing coincided with normal duty hours. Due to the partial concept of the exercise, staffing consisted only of LOEP personnel. Call-up procedures were explained and a duty roster was available.

Participants effectively demonstrated adequate command and control. Efficient and timely message handling kept staff members updated on events and status of the incident. The decision-making techniques followed standard operating procedures and involved all staff members. Copies of the plan and procedures were available.

The facilities of the EOC were excellent and are adequate for supporting extended, round-the-clock operations.

Although not an exercise objective, all maps and displays were available. Those depicting strategic topics, however, would be improved by updating.

Communications equipment was adequate, and all primary and secondary units functioned appropriately, except for a "bug" in the operational hotline's "ring-down" which caused failure. The State EOC was unable to "ring" the EOF from about 1:30 p.m. through the end of the exercise. However, backup procedures were demonstrated and worked adequately (see Utility Support).

Deficiencies identified during the initial exercise were corrected. Communications staff demonstrated good training and efficiency. Problems encountered previously in fax transmittals were alleviated by acquisition of two new machines. Conferencing capabilities of all telephones facilitated the handling of requests from the parishes. These were efficiently coordinated with the vendors.

Alerting and Notification to the public is initiated at the Parish-level. However, copies were received at the State EOC; and through coordination with the Parishes, the State prepared and faxed news releases to the Joint Information Center for distribution.

Requests were received during the exercise from St. John and St. Charles Parishes for buses to evacuate prisoners, nursing homes, and hospitals. These requests were quickly and efficiently coordinated over the conference phones, as was the request for activation of the Centroplex to receive evacuees.

Free-play situations and problems were injected into the exercise. These related to primary and alternate evacuation routes and road closures. Problems were discussed, solutions determined and changes appropriately posted.

Dosimetry equipment is maintained by the State and distributed as necessary to support activities at the three plants within Louisiana. Permanent record devices are supplied by the utility.

For this exercise, LOEP distributed to St. Charles Parish, 200 CDV-730s and 4 chargers; and to St. John Parish 250 CDV-730s and 70 CDV 742s.

In summary, the scenario and exercise objectives were intended to be limited. All activities and objectives demonstrated were correct and well-matched to the staff present. The previous deficiency relating to training of Communications staff was corrected, and all objectives assigned to the State EOC were met during this exercise.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTION: NONE

AREAS RECOMMENDED FOR IMPROVEMENT:

- Description: Although all maps/displays were available, the quality of some was poor.

Recommendation: Update, where needed, data information displayed on maps, charts and displays.

2.1.2 Emergency Operations Facility (EOF)

Narrative

The EOF is located in a new, tri-purpose facility which houses the Visitor's Center, Training facility and Emergency Operations Facility. Its design provides an excellent site for emergency operations. Both LNE staff and Utility staff were activated and responded promptly. They were operational within one hour following the Site Area Emergency declaration. The staff performed in a dedicated, professional and competent manner. The field team coordinator had no duties during this partial exercise as field monitoring was not an objective.

Communication systems have been improved in the new facility. The communications room contains dedicated phone lines, commercial phone lines and State Civil Defense radio for communicating with the State and local EOCs. Communications with other agencies were posted; generally, all parties were aware of the communications being made. A telecopier was available for transmitting hard copies to other locations.

Two deficiencies from last year's exercise were in the areas of communications -- operational proficiency by personnel; and the heavy dependence upon commercial telephones as well as the relay requirement in using Civil Defense radios as backup. These deficiencies have been corrected through staff training and the improved communications in the new facility.

A third deficiency from the previous year's exercise identified at the EOF related to communication of PARs. This deficiency had been assigned to the St. John the Baptist Parish (see Section 2.2.2) for responding to an unofficial and unconfirmed notification of a General Emergency. The corrective action for this 1984 Category "B" deficiency was to recommend to St. John the Baptist's CD Director to only respond to official notifications. Based upon this year's observation, an unofficial call was again received, this time concerning windshifts. Based on the previous year's recommended corrective action, the St. John the Baptist CD Director responded properly (i.e., he did not act until official notification was received).

Based upon these observations from the past two exercises, FEMA recommends that the Parish CD Directors should, upon receipt of any unofficial calls regarding changes in EALs or PARs, continue to only prepare for implementation and await official notification (via hotline or appropriate backup communication systems) before actual field implementation takes place. However, the Parish President's authority, as cited under the home rule charter provision of the Louisiana State Constitution, provides the basis for implementation of independent actions to protect the public.

Informational functions between State and Utility were not observed with exception of a call made to the LNE staff from the State PIO to find out the status of the dose assessment activities.

Dose assessment and protective action recommendations were well coordinated between the State (LNE) and the Utility. Dose calculations were made by computer;

they were made promptly and checked for accuracy. LNED was prepared to make hand calculations if the computer failed, but this backup procedure was not necessary. Field monitoring was simulated for this exercise. Utility field team results were used and subsequent dose assessment and PARs based upon those results. The assessment overestimated the dose by a factor of 3 or 4 because of erroneous data about the leak rate submitted by the plant technical assessment staff. Although the 20,000 cfm leak rate was questioned and discussed as being unusually high, it is the utility's responsibility to ensure that accurate data is provided to both utility and state dose assessment personnel. Overall, based on the information given LNED, their response actions were appropriate and conservative.

Although monitoring data was not plotted on the map, this did not seem to interfere with procedures or accomplishments. Total population exposure was not made periodically, but one estimate was determined near the end of the exercise.

Although EPA PAGs were not used directly, they were considered by LNED in arriving at their own Protective Action Guide.

The scenario provided realism and challenge to the participants. It did not test all previous deficiencies due to the partial participation nature of the exercise. However, the scenario did test all assigned EOF objectives.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTIONS: NONE

AREAS RECOMMENDED FOR IMPROVEMENT:

- Description: Meteorological databoard entries were updated by erasing and correcting, repeatedly, the 1st line entry. Finally, beginning with the 1:45 p.m. entry, additional lines were used.

Recommendation: Update meteorological data by a continuous entry using new lines; this allows trends to be visible and facilitates retrieval of previously recorded conditions.

2.1.3 LOUISIANA NUCLEAR ENERGY DIVISION (LNED)

The activation and partial staffing of the LNED headquarters in Baton Rouge was completed by 8:16 a.m. Initial notification occurred at the Unusual Event classification with a call from the Utility over the dedicated (Hot) line to all responding agencies. Standard operating procedures were used for notification. The LNED office is equipped with a dedicated phone line, and is capable of monitoring all calls during normal business hours. During off-hours an answering service receives all messages. Additionally, the State LOEP in Baton Rouge provides the LNED with all appropriate messages and

information until the LNED offices are staffed. During off-duty hours, the LNED Administrator receives notification via a radio pager. During this exercise he was notified via radio pager at his home (5:52 a.m.) of the Unusual Event which was declared at 5:30 a.m. He arrived at the office by 6:28 a.m. and used an up-to-date call list to notify additional staff members. This call list was also used to mobilize remaining staff at the Alert notification.

The administrator effectively directed and controlled the emergency functions and demonstrated an outstanding overall performance. Actual operations consisted only of activation and staffing, assignment of field locations, coordination of the dispatch and deployment of staff into the field, and briefing the staff on emergency status and their associated field activities. After deploying personnel to the EOF, Media Center, and local parishes, the Administrator relocated LNED operations to the State EOC in Baton Rouge. From that location he was able to communicate with all deployed staff as well as play a key role in EOC management and decision-making processes at the LOEP. This change in location corrected a communications problem identified in last year's exercise. The present inability to communicate directly with the EOF from the LNED headquarters is resolved by use of the direct line at the State EOC.

Copies of the plan and standard operating procedures were available and referenced. Message logs were maintained, and appropriate messages distributed as needed. The Civil Defense radio which was the source of one of last year's deficiencies has been replaced by a new system providing direct hard wire to the State EOC. This equipment was demonstrated during the exercise.

Communications demonstrations, overall, were good. However, the jamming of the datafax machine resulted in failure to receive several messages during the early stages of the exercise. Other alternate equipment was used in its place and capability to receive messages was restored.

Mobile radios were used to communicate with LNED staff as they traveled to their location in the field. This type of radio also is available for the Administrator's use during in-transit status.

Dose projections were made at the EOF, but none were performed by LNED. The only functions demonstrated were receipt of information from LNED staff at the EOF and later discussions, explanations and projections to State agency representatives. Reasoning behind protective action recommendations were fully and voluntarily explained by the Administrator.

Although exposure control was not an objective of this exercise, it should be noted that adequate supplies of mid-range and hi-range pocket dosimeters are not available. As a standard function of the LNED staff, TLDs and dosimeters are carried at all times while on the job. Staff appears well trained in theory and use of these devices.

The scenario provided sufficient situations for demonstration of those limited assignments for this exercise.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTIONS: NONE

AREAS RECOMMENDED FOR IMPROVEMENT:

- Description: Even though radiological exposure control was not an exercise objective, inadequate supplies of pocket dosimeters are available to LNED staff.

Recommendation: Purchase and distribute to staff members adequate supplies of dosimetry devices.

- Description: The datafax machine used to transmit hard-copy messages from the EOC malfunctioned during the exercise.

Recommendation: Determine cause of equipment failure and repair. Additionally, train an individual at LNED headquarters in minor repair techniques, such as the paper feed mechanism which failed to function.

2.1.4 MEDIA RELATIONS

Narrative

The activation and staffing of the Louisiana Power and Light Emergency News Center was sufficient to handle the emergency situation. All staff personnel in the Utility's Media department could have been called at any hour of the day for activation. The Utility, using a page system, would notify key media staff personnel, who would then call various staff members on a "call-up" list. This is a standard procedure for a large media organization. Additionally, designated members of the media staff contacted other agencies such as the LOEP and LNED. PIO members of these two organizations arrived at the Utility command media center shortly after their initial notification (i.e., 7:30 a.m. and 9:30 a.m. respectively).

Utility media staff (including clerical) and LOEP and LNED PIO reps were very knowledgeable in their programmatic areas.

Communication links were well established between the Utility, State EOC, local EOCs, and the EOF. The State and local EOCs were linked with the Utility by commercial telephone lines and the EOF was linked by a dedicated phone line. Each of these communication links was supported by a secondary communications link. The Utility utilizes a TWX machine for hard-copy notification.

All the phone lines had conferencing capability. Agencies who were involved in the event could be tied into a conference situation if necessary.

The Media Center was equipped with 40 telephones in a separate room away from the press briefing area. This arrangement allowed media reps to confer with their news rooms without interrupting a briefing in session.

At the early stages of the exercise, the Utility's Fax machine broke down but did not hamper their communications procedures. They immediately switched to a backup system. The Fax repairman arrived within approximately 50 minutes after being called.

Five briefings were held throughout the exercise, approximately every hour. The briefings were generally accurate and complete; maps and displays were used relatively well; technical jargon was avoided, although explanations regarding the medical x-ray equivalent of exposures could have been explained in more simple layman terms.

Hard copy releases of news bulletins were available for all agencies.

The PIOs were not able to fully exchange information because of the physical separation of the State on the eighth floor, from the LP&L staff on the fourth floor. Similarly, the physical separation of State and LP&L staff as well as the lack of Parish representatives prevented complete and thorough coordination of news bulletins and press conferences (see Utility Support Section).

LP&L maintains operations in the same building as the ENC, a separate staff for monitoring radio broadcasts, as well as a separate facility in another building for recording and monitoring video broadcasts.

The "Rumor Control" procedures of the LP&L public information department functioned well. The Rumor Control number was activated shortly after the Unusual Event. The published number also serves as the Utility's customer service phone number.

The "Rumor Control" phone bank was staffed with about thirty (30) operators who are LP&L employees. They were timely kept abreast of the Waterford III situation (within 15 minutes after an approved press release). However, time did not permit the evaluator to call the Rumor Control number to test operators' performance.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTION: NONE

AREAS RECOMMENDED FOR IMPROVEMENT:

- Description: Not all previously released news bulletins were displayed for ready inspection at all PIO locations. The location

was not easily accessible to all staff without disturbing the PIO and his staff.

Recommendation: As was done initially in the LP&L office, news releases could be hole-punched at the top and bound for a permanent log and display at some central, but accessible, area near all the PIOs.

- Description: Not all news releases, especially those of LP&L and the NRC, included the date and time of release.

Recommendation: All news releases should have the date and time of release as part of the leader information.

- Description: The State PIO staff (LOEP & LNED) appeared to have no tangible general reference resources to assist in developing their releases.

Recommendation: Agency plans, procedures and any other useful technical information should be available to the PIOs.

2.2 LOCAL EOCS AND SUPPORT ORGANIZATIONS

2.2.1 ST. CHARLES PARISH

ST. CHARLES PARISH EOC

Narrative

The Office of Emergency Preparedness (OEP) Director was notified by the Utility of an Unusual Event at 5:28 a.m. The Utility at 7:23 a.m. notified the OEP Director via Hotline that the emergency situation had been escalated to an Alert. At that time the EOC was activated using a call down list. The EOC was fully staffed by 8:55 a.m. Commercial telephones and radios are available as backup for Alerting and Notification, and the staff can be called up at any hour. The staff included are major department heads who demonstrated a high degree of capability in carrying out their responsibilities. Sufficient backup staff are available to provide for round-the-clock operations of the EOC for an extended period of time.

The EOC Director who directed operations was firmly in charge and demonstrated excellent management capabilities. Although the EOC staff was involved in the decision-making process, briefings were not held (as they have been in past exercises) to update the responders on the changing emergency conditions. The technical advisor from the Utility was the only person giving status updates. However, the EOC Director would

announce to EOC staff any changes in emergency classification or other important items. A copy of the plan was available as were written procedures and checklists. Message handling was excellent and a master log of all messages was kept. Although access to the EOC was controlled by the State Police, security later in the day became lax. Several people entered the EOC without being questioned. Persons entering the EOC were not monitored for radiation. Therefore, the EOC could have become contaminated.

The EOC is a well arranged, fully hardened facility and is capable of supporting a protracted emergency response. It is well lighted and uncrowded, and contains a kitchen, bunking facilities and backup power. Maps showing the EPZ with sectors labeled, evacuation routes, etc. were clearly displayed and referred to often. Two alternate EOCs were also available, if necessary. Status boards of professional quality were clearly posted and updated throughout the day. However, the emergency information was not posted as promptly as it should have been to reflect the rapidly changing emergency conditions. The problem seemed to originate when the staff person responsible for the updates was kept busy with other responsibilities regarding message handling. It is recommended that this responsibility be shared with an additional person.

Communication systems were excellent, worked well throughout the exercise and have a high degree of redundancy; many telephones, hotlines, various radios and fax machines were available and used as necessary throughout the exercise. Dedicated and commercial telephones were used as the primary method of communications. Also available was a mobile command post with all communications systems. The command post could be operated for extended periods of time from most any location and could serve as an alternate EOC if necessary.

The EOC has no responsibility for dose projections, and most protective action recommendations were made by the State or Utility. However, at various times the Director made protective action decisions on his own and implemented these actions in his Parish. KI was available at the EOC and would be distributed to emergency workers if recommended by the State.

Access control points were promptly activated as PARs were ordered. Traffic was routed around the Utility at the Aler' stage. Water and rail traffic was stopped and air traffic rerouted. Reception centers were promptly activated, and estimates of the number of people expected were discussed. When the alternate reception center was notified (University of New Orleans) they were unaware that they were designated a reception center and another alternate center had to be found. The location of mobility impaired individuals is known and in written form. Arrangements have been made for their transportation, and this was excellently demonstrated several weeks ago during the hurricane evacuation. There were sufficient buses available to evacuate school children and arrangements have been made to acquire additional buses from other sources if necessary. Jefferson Parish and USDA agents would work with farmers and food processing people to implement protective actions.

Radiological exposure control was demonstrated. The EOC was equipped with sufficient 0-200R direct reading dosimeters, twelve 0-20R dosimeters, permanent record dosimeters, record keeping cards, chargers, and survey meters. Additional 0-20R dosimeters were requested from LOEP and arrived two hours later. If workers are

returning from the field, they would be directed to a decontamination station. The parish EOC does not have decontamination responsibilities.

Instructions for the public were composed by two public information officers (PIOs). One PIO is also the Assistant to the Parish President and empowered by law to act in his absence. After consultation with the OEP Director, the draft message was then read over radio to the EBS radio where it was taped and broadcast (contact with EBS was simulated). The PIO also had direct access to all cable TV channels; could blank the screen and override the audio. The message text was put on Channel 11. The messages for the public were also sent to the LOEP, LNED, and the LP&L emergency news center. They gave information relative to affected areas in terms of familiar landmarks as well as sectors. Calls were also placed to hospitals, schools, nursing homes and industries.

A rumor control center was established on the second floor and the media center on the third floor of the parish EOC. The rumor control center was well informed of the changing emergency situation but received no calls during the exercise. The media center was not activated during this exercise.

The exercise terminated prior to involvement with recovery/reentry activities. However, the EOC Director requested that each department head discuss the activities in which they would be involved during the recovery/reentry phase. The two Category B Deficiencies from the previous exercise were corrected, and all objectives of this exercise assigned to St. Charles Parish were adequately met.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTIONS: NONE

AREAS RECOMMENDED FOR IMPROVEMENT:

- Description: Although security was established early (8:10 a.m.), it did not appear to be maintained throughout the exercise. Later in the day several people entered the EOC without being questioned or detained.

Recommendation: Tight security should be maintained throughout the exercise.

- Description: Later in the day status boards were not kept current with the rapidly changing events. Persons responsible had too many other duties to allow prompt updates.

Recommendations: Another person should be assigned to keep status board up to date.

- Description: One reception center notified (University of New Orleans) was unaware that they were an alternate reception center.

Recommendation: University of New Orleans should be notified as to their responsibility as an alternate reception center.

- Description: Insufficient numbers of mid-range dosimeters (0-20R) were available for emergency workers. It took almost two hours for the State to provide additional supplies.

Recommendation: EOC should have their own supply of 0-20R dosimeters.

- Description: EOC personnel were not monitored for contamination prior to entering EOC after there was a release at the plant.

Recommendation: EOC staff should be monitored for contamination before being allowed to enter EOC.

EVACUATION OF ON-SITE PERSONNEL

Narrative

An objective of this exercise was to demonstrate the capability to successfully evacuate on-site personnel at the plant. Selected employees and vehicles were designated to evacuate from the plant to the parking lots just outside the plant protected area. The plant personnel evacuated to the parking lot in a very orderly manner and awaited further instructions. Two automobiles with a total of six employees departed the plant and proceeded to St. John the Baptist Church in Edgard, Louisiana. Another automobile with the Assembly Area Supervisor, Radiological Monitor and Controller followed the players to the off-site Assembly Area. Radio contact was established at the Assembly Area. A "clean" area was established and the six employees were checked for contamination; when determined they were "clean," they were then sent to the clean area where they signed in on a master sheet. The vehicles were then checked for contamination and determined to be clean.

The evacuation to the off-site assembly area was accomplished in an orderly manner. The site personnel were aware of what actions would be necessary to take if they had found someone who was contaminated.

Overall, the on-site evacuation was realistic; all personnel were aware of their responsibilities and duties, and performed them adequately.

2.2.2 ST. JOHN THE BAPTIST PARISH EOC

Narrative

The St. John Parish EOC was activated upon receipt of an Alert at approximately 7:30 a.m. Activation was completed at 8:03 and the EOC became operational at 8:23 a.m. A full staff of response personnel were present, and a staffing roster was displayed to verify 24-hour staffing capabilities.

Normally, the Civil Defense Director would manage the EOC operation. During this exercise, he served as Police Jury President and appointed the Assistant Civil Defense Director as Director. Emergency management of the operations was excellent. Briefings and request for status updates from staff were held regularly. The Assistant CD Director involved all staff in this process and in the decision-making discussions. Copies of the plan and related procedures were referenced during the exercise.

EOC operations were conducted in two areas - the Central EOC room and a Communications room across the hall. Normally, public information, media relations, and Rumor Response are conducted in an adjoining Senior Citizen Center. That building was not available for the exercise so those functions were relocated to a corner of the Central EOC operations room.

All agencies had specifically assigned areas with phones and placards identifying their roles. Message handling was also conducted here, with a runner to copy and distribute messages. Security was handled by two, uniformed guards stationed outside the Operations and Communications rooms.

Spacing and seating are adequate, and a kitchen is available in the jail for use during extended operations. No bunking facilities are available. The EOC facilities include an excellently designed mobile operations/communications van from which the EOC could operate if evacuation becomes necessary. A mobile siren is available and was on display for the exercise. Both the van and siren were demonstrated to ensure their working condition.

Capability for alert/notification of the public, institutions, and industries within the plume EPZ was successfully demonstrated. Actual sounding of sirens followed the issuance of Protective Action Recommendations for the Parish. Sirens in Sector A-2 were activated from primary equipment at the EOC. A hypothetical tornado downed one siren and the mobile siren was activated in its place. Sectors A-4 and C-2 were alerted by activating sirens from the mobile EOC van. All soundings were coordinated with actual broadcasts on Station WCKW. The EOC Director simulated making a Live-On-The-Air announcement to demonstrate that capability which exists for all parishes within the 10-mile EPZ. Backup equipment was used in C-3 to test its capability. Additionally, they simulated dispatch of a helicopter to Sector A-3. Calls were made to local schools and industries both initially and as emergency protective actions were recommended. The Parish's excellent Alerting and Notification capabilities were thoroughly and expertly demonstrated.

During the exercise, attempts to contact the U.S. Coast Guard for assistance were difficult. Eventually, they obtained an open line and were able to request the assistance needed. They obtained from the Coast Guard three direct lines through which they can reach them. These were hand delivered during the postexercise critique to the staff member responsible for updating the procedures and plans.

A deficiency from the previous year's exercise identified at the EOF related to communication of PARs. This deficiency had been assigned to St. John the Baptist Parish for responding to an unofficial and unconfirmed notification of a General Emergency. The corrective action for this 1984 Category "B" deficiency was to recommend that the St. John the Baptist's CD Director to only respond to official notifications. Based upon this year's observation, an unofficial call was again received, this time concerning windshifts. Based on the previous year's recommended corrective action, the CD Director responded properly (i.e., he did not act until official notification was received).

Based upon these observations from the past two exercises, FEMA recommends that the Parish CD Directors should, upon receipt of any unofficial calls regarding changes in EALs or PARs, continue to only prepare for implementation and await official notification (via hotline or appropriate back-up communication systems) before actual field implementation takes place. However, the Parish President's authority, as cited under the home rule charter provision of the Louisiana State Constitution, provides the basis for implementation of independent actions to protect the public.

Protective Action Recommendations were evaluated and implemented based upon consultation among staff members. Decisions included the latest facts regarding meteorological conditions, resources available, and the status of school situations; i.e., approaching dismissal time. The staff noted that their decisions regarding the PARs from the State should be relayed back to the State to ensure that all involved State agencies are aware of the actions the Parish plans to take or has taken.

St. John Parish played only a minor role in coordinating evacuation of an on-site injured/contaminated individual. The EOC was notified of this action so that they could have backup assistance available if needed.

Exposure control capabilities were not objectives for the exercise; however, the effectiveness of procedures and dedication to this need were observed. Dosimeters were worn by all staff and readings faithfully called for every 30 minutes.

There were no media relations objectives assigned to St. John Parish. However, coordination of press releases and messages were observed to confirm that the State objectives were met for coordination of messages, public information, and news releases.

St. John Parish PIOs develop, prepare, and submit news releases and messages in response to changing status of the emergency as it effects Parish residents. While not required to coordinate these with LOEP, LNEP and LP&L at their headquarters, they do coordinate with those State and Utility representatives on location at the Parish EOC. The PIO documented that copies of press releases and messages are exchanged with the State and Utility at their headquarters. Copies of St. John Parish messages are read by

the person in charge of media briefings when the media inquires as to what is happening in the Parishes.

Local press briefings are held as needed by the Civil Defense Director and PIO person. Only one was necessitated during this partial exercise. They demonstrated excellent capabilities in this effort. The Civil Defense Director correctly fielded or refused to answer questions which were outside his jurisdiction or area of responsibility; i.e., KI, Field Monitoring, State actions, etc.

Response to rumors was handled effectively. The person in charge noted that responding to rumors should be a team effort, not a one-person role, and that if this function was returned to its assigned location in the Senior Citizens Center, rather than in the main operations room of the EOC as demonstrated in this exercise, better coordination of information would be needed.

At the conclusion of the exercise, Recovery and Reentry were discussed. It was jointly agreed between the Civil Defense Director and State representative at the Parish that testing of Recovery and Reentry capabilities should be held by a separate drill at the State EOC where the Parish Civil Defense Directors would be located during much of the Recovery time period. If total evacuation of the Parish occurred, the Civil Defense Directors would meet at the State EOC where these issues could more effectively be addressed. The Parish Director and staff agreed that reentry capabilities cannot be sufficiently demonstrated in a partial exercise of this type without scenario activities which include ingestion pathway concerns. They did demonstrate good capabilities in handling Parish Recovery operations.

In summary, the St. John Parish accomplished all objectives assigned during this exercise and satisfactorily addressed and corrected all deficiencies from last year's initial exercise.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTION: NONE

AREAS RECOMMENDED FOR IMPROVEMENT: NONE

2.3 MEDICAL SUPPORT

Ochsner Hospital and St. Charles Ambulance Service

The St. Charles Ambulance Service was requested at 5:35 a.m. to respond to and treat an injured, contaminated person at the plant. Two emergency medical technicians (EMTs) responded to the emergency request. The ambulance service immediately contacted Ochsner Hospital to notify them of the emergency. The Hospital staff at that

point was granted permission for trauma protocol. The Radiological Management Room (RMR), located in the physical therapy department, had a separate entrance and was very suitable for treating a contaminated, injured patient. There was some concern from the hospital staff about the slow communications response from the plant in notifying them of the patient transfer. Otherwise, an excellent communication linkage is in place and was effectively demonstrated. Good communications existed between the ambulance service and hospital regarding status of patient injuries, contamination levels, vital signs and estimated time of arrival. Transfer of patient from ambulance personnel to hospital ER staff was coordinated very effectively. The ambulance arrived at the hospital at 7:06 a.m. Excellent security was provided by the hospital. Security officers kept everyone away from the ambulance vehicle.

The patient was accompanied by a Utility Health Physicist. The EMTs were not dressed out in protective clothing and were not wearing dosimeters. However, the EMTs at the plant were given TLDs and dosimeters and were properly surveyed before leaving the contaminated area at the plant. The ambulance vehicle and patient compartment was also surveyed prior to leaving the plant. At that time the dosimeters and TLDs were removed by Utility personnel.

A physician was in charge of procedures at the hospital. Both he and his hospital staff demonstrated excellent training techniques and procedures in (1) preparing the radiological emergency management area and wearing protective clothing and dosimeters; (2) establishing good communications with the patient and recording it; (3) good communications between physician and Utility H.P.; (4) good patient surveying techniques by both Utility and Hospital H.P.s; (5) hotline procedures (not contaminating the remainder of the room), and excellent exit procedures in removing protective clothing. Also, patient decontamination and collection of radiological specimens were properly demonstrated. Disposal of waste was verbally explained by the Utility H.P. Double bagging of the waste was not included in his explanation.

Both exercise objectives were demonstrated adequately. With exception of a few areas recommended for improvement (see Utility Support) both the hospital staff and ambulance personnel handled the radiological emergency in an adequate manner.

DEFICIENCIES: NONE

AREAS REQUIRING CORRECTIVE ACTION: NONE

AREAS RECOMMENDED FOR IMPROVEMENT: (See Utility Support)

2.4 UTILITY SUPPORT

A summary is provided below of some of the Louisiana Power and Light Company issues which relate to or impact upon the off-site activities performed by the various Louisiana State and local Parish participating agencies. This section is presented

because the Federal evaluators determined that some issues resulting from Utility operations created off-site impacts. FEMA acknowledges that its responsibility is not to cite utility deficiencies, areas requiring corrective action, or areas recommended for improvement. However, the noted issues that follow should be addressed by the NRC and/or Utility to prevent their recurrence during future exercises or in a real emergency at the Waterford III Station.

UTILITY ISSUES

- Description: Dose assessments by the plant technical staff were overestimated by a factor of 3 or 4 because of erroneous data about the leak rate. The leak rate of 20,000 cfm resulted in an off-site evacuation; a conservative response to the technical data presented. FEMA's concern relates to the possibility of erroneous data being used that results in an underestimation of dose and potentially an implementation of off-site PARs that may not protect the health and safety of the public. (See EOF, Section 2.1.2.)

Recommendation: The utility should assure that accurate data is provided to all dose assessment personnel.

- Description: The ENC facilities did not allow full coordination and consultation among all agency PIOs prior to the release of News Bulletins. This was due to the physical separation of the LP&L staff on the 4th floor, from the State on the 8th floor, as well as from the Parish PIOs at their own EOCs. There was minimal interagency consultation prior to their respective approval and releasing of bulletins. This problem is a carryover from the February 1984 exercise. While it has been partially corrected by locating state and utility PIOs within the same building, total correction was not made during this exercise because of the physical separation of the State Parish PIOs on separate floors of the building. (See Media Relations, Section 2.1.4.)

Recommendation: FEMA suggests that the Emergency News Center follow a true Joint Public Information Center concept with PIOs from each and every agency co-located in the same facility, on the same floor and in near proximity to each other so as to allow easy and rapid exchange of information. Procedures should also allow for a formal period prior to news conferences for all PIOs to gather for joint consultation.

- Description: During the exercise (approximately 1:00 p.m.) the "Hotline" failed to operate properly at the State EOC. This failure of the "Hotline" required the use of the back-up system which performed properly. (See State EOC, Sec. 2.1.1.)

Recommendation: Determine the problems which caused breakdown of the equipment and have the equipment repaired.

- Description: EMTs should be provided radiological training as per off-site emergency plans.

Recommendation: Complete proper training prior to next exercise. This would include initial and refresher training.

- Description: Waterford III plant personnel should notify the hospital much sooner concerning the patient transfer status.

Recommendation: Review communications protocol.

- Description: Refresher training should be provided to the hospital nursing staff concerning use of the survey meters for monitoring,

Recommendation: Complete refresher training.

- Description: Utility H.P. should remember to double bag waste.

Recommendation: Include double bagging in next exercise.

3 TRACKING SCHEDULE FOR STATE/LOCAL ACTIONS TO CORRECT DEFICIENCIES AND AREAS REQUIRING CORRECTIVE ACTION

Section 2 of this exercise report has provided a listing of Deficiencies and Areas Requiring Corrective Actions with recommendations noted by Federal evaluators. The evaluations were based on the applicable planning standards and evaluation criteria set forth in Section II of NUREG-0654-FEMA-1, Rev, 1 (November 1980) and exercise objectives.

The FEMA Region VI Director is responsible for certifying to the FEMA Associate Director, State and Local Programs and Support, Washington, D.C., that any Deficiencies and Areas Requiring Corrective Actions noted in the exercise will be corrected and that such corrections will also be incorporated into the emergency response plans.

FEMA Region VI may request that the State of Louisiana and local jurisdictions participating in the Waterford III exercise submit measures that they will take or intend to take to correct those problems identified by the Federal evaluators. If corrective actions are necessary, FEMA Region VI will request that a detailed plan, including dates of completion for scheduling and implementing remedial actions, be provided if remedial actions cannot be instituted immediately.

Table 1 provides a consolidated summary of all Deficiencies and Areas Requiring Corrective Actions by jurisdiction. As noted, there were no Deficiencies found in this Waterford III off-site radiological emergency response preparedness exercise. The chart is designed so that space has been allowed to add (1) the corrective actions that have been recommended and (2) the projected and actual date of completion.

Because of a national change in nomenclature, former "Category B" Deficiencies are now identified as "Areas Requiring Corrective Actions." No "Areas Requiring Corrective Action" have been identified in this exercise. However, there are several uncorrected Category B Deficiencies from the February 1984 exercise which have been carried over on the following table. These former "Category B" Deficiencies will now be identified as "Areas Requiring Corrective Action."

TABLE 1 Remedial Actions for the Waterford III Exercise

Deficiencies and Areas Requiring Corrective Actions With FEMA/RAC Recommendations for Correction	State (S) and Local (L) Proposed Corrective Actions	Proposed Completion Date	FEMA Evaluation of State and Local Corrective Actions And Determination of Adequacy or Inadequacy	Actual Completion Date
[THE FOLLOWING ARE CARRY-OVER, UNCORRECTED CATEGORY B DEFICIENCIES FROM THE FEBRUARY 1984 EXERCISE; THEY ARE IDENTIFIED AS <u>AREAS REQUIRING CORRECTIVE ACTION</u> BASED ON CHANGE IN NOMENCLATURE BY THE FEMA NATIONAL OFFICE)				
<u>Field Monitoring Operations</u>				
4. <u>Description:</u> The Sodium Iodide (NaI) detector was hand held over the cartridge which could result in unnecessary exposure (NUREG-0654, II, I.8, H.10). <u>Recommendation:</u> Consider devising a jig to hold the detector in place.	(S) A device to hold the detector and provide reproducible geometry is available and will be utilized in the future.	Complete 10/84	FEMA accepts that this deficiency has been corrected, but will look at again in next exercise.	
5. <u>Description:</u> Proper procedures for taking vegetation samples were not used and shears for collecting samples were not provided (NUREG-0654, II, I.8). <u>Recommendation:</u> Provide teams with shears for collecting samples and give additional training in sampling.	(S) Shears and other necessary sampling equipment have been added to the emergency kits. Due to time constraints of the exercise scenario, the complete sampling and measurement procedure was not followed at each sampling/measurement location. However, on-going training is provided to ensure that field teams remain familiar with sampling procedures.	Complete 10/84 Complete 10/84	FEMA accepts that this deficiency has been corrected, but will look at again in next exercise.	

TABLE 1 Cont'd)

Deficiencies and Areas Requiring Corrective Actions With FEMA/RAC Recommendations for Correction	State (S) and Local (L) Proposed Corrective Actions	Proposed Completion Date	FEMA Evaluation of State and Local Corrective Actions And Determination of Adequacy or Inadequacy	Actual Completion Date
<u>Louisiana Office of Emergency Preparedness Media Center</u>				
<p>7. <u>Description:</u> News releases were being made simultaneously from several sources; i.e., parishes and the LOEP. This presents a high potential for confusing and contradicting reports (NUREG-0654, II, G.3.b, G.4.b).</p> <p><u>Recommendation:</u> Consider establishing a joint media center for staffing by LP&L, LOEP, LNED, and parish personnel and use it as a clearinghouse for official press releases. This should not interfere with the parish authority to issue public information or instructions regarding protective actions for the populations and jurisdictions for which they are responsible. The necessity of providing access to media information near the site is imperative.</p>	<p>(S)(L) Consideration has been given a joint media center; however, parishes feel strongly that their media center should be located at their respective EOC to ensure timeliness of press releases. In addition, Telex and facsimile machines are available at each location where press releases may take place to assure coordination of information.</p>	9/84	<p>FEMA understands the Strong Home Rule in Louisiana; however, FEMA believes a J.I.C. would eliminate possible conflicting press releases and coordination of the press releases.</p>	

TABLE 1 Cont'd

Deficiencies and Areas Requiring Corrective Actions With FEMA/RAC Recommendations for Correction	State (S) and Local (L) Proposed Corrective Actions	Proposed Completion Date	FEMA Evaluation of State and Local Corrective Actions And Determination of Adequacy or Inadequacy	Actual Completion Date
<u>St. Charles Parish</u>				
9. <u>Description:</u> The radiological field team coordinator was not sure of the maximum exposure allowable without authorization or when the emergency workers should be ordered out of the area (NUREC-0654, II, K.3.a). <u>Recommendation:</u> Provide additional training in radiological exposure control.	(L) The type of questioning caused the radiological officer to appear to lack understanding of radiological exposure limits. Discussions since the exercise have resolved this item; in addition, refresher training will be provided to the radiological officer along with all other emergency workers.	2/85	FEMA will re-evaluate at next exercise. Also, would like a letter showing dates of refresher training. Capability demonstrated during 9/18/85 exercise. However, dates of refresher training have not been received.	
<u>Avondale Fire Department Decontamination Center</u>				
12. <u>Description:</u> The vehicle was not surveyed for contamination and contaminated and non-contaminated individuals were not separated (NUREC-0654, II, K.5.a,b).	(L) Provisions will be made for separation of contaminated and non-contaminated individuals. Additional training will be provided to assure that all vehicles carrying contaminated individuals will be surveyed.	10/84 12/84	FEMA accepts the dates that it will be accomplished. However, will observe again when tested.	

TABLE 1 Cont'd

Deficiencies and Areas Requiring Corrective Actions With FEMA/RAC Recommendations for Correction	State (S) and Local (L) Proposed Corrective Actions	Proposed Completion Date	FEMA Evaluation of State and Local Corrective Actions And Determination of Adequacy or Inadequacy	Actual Completion Date
<p><u>Recommendation:</u> Survey all vehicles carrying known contaminated individuals and erect a temporary barrier to separate contaminated areas from others. Provide additional training in decontamination procedures.</p>				
<u>West Jefferson Hospital</u>				
13. <u>Description:</u> One patient was not surveyed for contamination upon arrival at the hospital (NUREG-0654, II, L.1). <u>Recommendation:</u> All patients suspected of contamination should be surveyed before entering the hospital.	See #12 above		See #12 above	

TABLE 1 Cont'd

Deficiencies and Areas Requiring Corrective Actions With FEMA/RAC Recommendations for Correction	State (S) and Local (L) Proposed Corrective Actions	Proposed Completion Date	FEMA Evaluation of State and Local Corrective Actions And Determination of Adequacy or Inadequacy	Actual Completion Date
14. <u>Description:</u> Ambulance personnel did not have dosimeters (NUREG-0654, II, K.3.a, O.3, L.4). <u>Recommendation:</u> Provide all ambulance crew members with appropriate dosimeters.	Dosimeters are available for all emergency workers, including ambulance personnel. Training will be provided to assure that these individuals have proper radiation monitoring devices.	12/84	FEMA accepts that dosimeters are now available for ambulance personnel. However, will check again at next exercise.	
<u>East Baton Rouge Parish</u>				
15. <u>Description:</u> The two fire officials (radiological monitoring officers for relocatees) did not exhibit sufficient knowledge of monitoring and decontamination procedures (NUREG-0654, II, J.12). <u>Recommendation:</u> Training should be provided to EOC staff on monitoring and decontamination procedures.	(L) Training was provided to radiological monitors in September & October, 1984 and additional drills will be conducted to assure an adequate knowledge of radiological monitoring procedures.	12/84	FEMA accepts that training has and will be provided. Will evaluate again when tested in exercise.	

4 EVALUATION OF OBJECTIVES

4.1 SUMMARY OF FEMA OBJECTIVES REMAINING TO BE MET

Table 2 provides a consolidated listing of FEMA Objectives which, according to the FEMA RAC Chairman, have not been satisfactorily met or tested and which should be incorporated into the exercise objectives on or by the sixth year of the six-year period in which all the objectives should be tested. These should be considered in the development of future exercise objectives; as well as those FEMA Objectives which, although previously tested and satisfactorily demonstrated, must be tested and evaluated during any Partial and/or Full-Participation exercise of offsite State and Parish response capabilities.

4.2 FEMA OBJECTIVES TRACKING - WATERFORD III STEAM ELECTRIC STATION

Table 3 provides a comprehensive tracking system of FEMA Objectives, NUREG-0654 Reference Elements, Exercise Objectives, Jurisdictional Responsibility, Exercise Dates, Identified Deficiencies and Required Corrective Actions, and Date Specific Objectives Were Met by State and Local agencies.

TABLE 2 Summary of FEMA Objectives Remaining To Be Met at the Waterford III Steam Electric Station as of September 18, 1985

FEMA OBJECTIVE	JURISDICTION AND DEFICIENCY OR REQUIRED CORRECTIVE ACTION (If Applicable)
7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels. (I.8,I.11)	State - #4, 2/8/84 Field Monitoring Operations
8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 10^{-7} μ Ci/cc in the presence of noble gases. (I.9)	State - #4, 2/8/84 Field Monitoring Operations
9. Demonstrate appropriate equipment and procedures for collection, transport, analysis of samples of soil, vegetation, snow, water and milk. (I.8)	State - #4, 2/8/84 Field Monitoring Operations
11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data; and to determine appropriate protective measures based on PAGs and other relevant factors. (I.10, I.II., J.11)	State and Parishes - Not Tested 2/8/84, 9/18/85
12. Demonstrate ability to implement protective actions for ingestion pathway hazards. (J.9, J.11)	State and Parishes - Not Tested 2/8/84, 9/18/85
22. Demonstrate ability to supply and administer KI, once the decision has been made to do so. (J.10.e.)	State and Parishes - Not Tested 2/8/84, 9/18/85
25. Demonstrate ability to provide advance coordination of information released. (G.4.b.)	State - #7, 2/8/84 LOEP Media Center
27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees. (J.12)	Parish - #14, 2/8/84 East Baton Rouge Parish
29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles. (K.5.a.,b.)	Parishes - #12, 2/8/84 Avondale Fire Dept. #14, 2/8/84 West Jefferson Hospital

TABLE 2 Cont'd

FEMA OBJECTIVE	JURISDICTION AND DEFICIENCY OR REQUIRED CORRECTIVE ACTION (If Applicable)
30. Demonstrate adequacy of EMS transportation, personnel and procedures for handling contaminated individuals including proper decontamination of vehicle and equipment. (L.4.)	Parish - #23, 2/8/84 Avondale Fire Department
31. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals. (L.1)	Parish - #13, 2/8/84 West Jefferson Hospital
32. Demonstrate ability to identify need for, request, and obtain Federal assistance. (C.1.a,b.)	State - Not tested 2/8/84, 9/18/85
34. Demonstrate ability to determine and implement appropriate measures for controlled recovery and reentry. (M.1)	State and Parishes State - Not tested 2/8/84, 9/18/85 Parishes - Reentry portion of Objective not tested 2/8/84, 9/18/85

TABLE 3 FEMA OBJECTIVES TRACKING CHART - WATERFORD III STEAM ELECTRIC STATION

Page 1 of 12

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
1. Demonstrate ability to mobilize staff and activate facilities promptly. [Objective for which capability should be demonstrated during each full participation exercise]	E.1, E.2 [S&L]	Demonstrate that participating organizations can alert and activate emergency response personnel in a timely and effective fashion.	X	X	9/18/85		2/8/84 9/18/85	2/8/84 9/18/85
2. Demonstrate ability to fully staff facilities and maintain staffing around the clock.	A.2.a., A.4 [S&L]		X	X			2/8/84	2/8/84
3. Demonstrate ability to make decisions and to coordinate emergency activities. [Objective for which capability should be demonstrated during each full participation exercise]	A.1.d., A.1.e., A.2.a. [S&L]	Demonstrate State and Parish effectiveness in the direction and control of emergency operations.	X	X	9/18/85		2/8/84 9/18/85	1/8/84 9/18/85

F
C

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
4. Demonstrate adequacy of facilities and displays to support emergency operations. [Objective for which capability should be demonstrated during each full participation exercise]	G.3.a., H.2., H.3. [S&L]	Demonstrate the activation of EOCs and the effectiveness of security, internal procedures, displays and information systems.		X	9/18/85		2/8/84	2/8/84 9/18/85
5. Demonstrate ability to communicate with all appropriate locations, organizations and field personnel. [Objective for which capability should be demonstrated during each full participation exercise]	F. [S&L]	Demonstrate the activation and use of external communication systems between facility, State and Parish organizations. ----- Demonstrate the activation and use of communications between State EOC and the Field Response Center.	X	X	9/18/85	#6, 2/8/84 (LNED)	9/18/85	2/8/84
			X		9/18/85	#1, 2/8/84 (LOEP) #2, 2/8/84 (EOF) #6, 2/8/84 (LNED)	9/18/85	
6. Demonstrate ability to mobilize and deploy field monitoring teams in a timely fashion. [Objective for which capability should be demonstrated during each full-participation exercise]	I.8. [S&L]		X				2/8/84	

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Corre- ctive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
7. Demonstrate appropriate equip- ment and procedures for deter- mining ambient radiation levels. [Objective for which capability should be demonstrated during each full-participation exercise]	I.8., I.11. [I.8-S&L] [I.11-S]		X			#4, 2/8/84 (Field Monitoring Operations)	Not Met	
8. Demonstrate appropriate equip- ment and procedures for measurement of airborne radio- iodine concentrations as low as 10^{-7} μ Ci/cc in the presence of noble gases. [Objective for which capability should be demonstrated during each full-participation exercise]	I.9. [S]		X			#4, 2/8/84 (Field Monitoring Operations)	Not Met	
9. Demonstrate appropriate equip- ment and procedures for collection, transport, analysis of samples of soil, vegetation, snow, water and milk. [Objective for which capability should be demonstrated during each full-participation exercise]	I.8. [S&L]		X			#5, 2/8/84 (Field Monitoring Operations)	Not Met	

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures based on PACs, available shelter, evacuation time estimates and all other appropriate factors. [Objective for which capability should be demonstrated during each full-participation exercise]	I.10., J.10. [I.10-S] [J.10-S&L]	Demonstrate INED's capability for accident assessment and protective action recommendation.	X		9/18/85	#3,2/8/84 (EOF)	9/18/85	
		Demonstrate that timely and coordinated protective response decisions can be made for the plume exposure pathway EPZ.	X	X	9/18/85		9/18/85	2/8/84 9/18/85
11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data; and to determine appropriate protective measures based on PACs and other relevant factors.	I.10., I.11., J.11. [S]		X	X			Not Tested	Not Tested
12. Demonstrate ability to implement protective actions for ingestion pathway hazards.	J.9., J.11. [J.9-S&L] [J.11-S]		X	X			Not Tested	Not Tested

TABLE 1 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
13. Demonstrate ability to alert the public within the 10-mile EPZ and disseminate an initial instructional message within 15 minutes. [Objective for which capability should be demonstrated during each full-participation exercise]	E.6., App. 3 [S&L]	Demonstrate State and Parish capability for alert/notification of the public, institutions and industry within the plume exposure pathway EPZ.	X	X	9/18/85	#8, 2/8/84 St. Charles Parish #10, 2/8/84 St. John Parish	9/18/85	9/18/85
14. Demonstrate ability to formulate and distribute appropriate instructions to the public in a timely fashion.	E.5., E.7. [S&L]	Demonstrate State and Parish capability for alert/notification of the public, institutions and industry within the plume exposure pathway EPZ.	X	X	9/18/85		2/8/84 9/18/85	2/8/84 9/18/85
15. Demonstrate organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ. [Objective for which capability should be demonstrated during each full-participation exercise]	J.9., J.10.a,g. [S&L]		X	X			2/8/84	2/8/84

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
16. Demonstrate organizational ability and resources necessary to deal with impediments to evacuation, as inclement weather or traffic obstructions.	J.10.k. [S&L]		X	X			2/8/84	2/8/84
17. Demonstrate organizational ability and resources necessary to control access to an evacuated area.	J.10.j. [S&L]		X	X			2/8/84	2/8/84
18. Demonstrate organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ.	J.10.d. [S&L]			X				2/8/84
19. Demonstrate organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ.	J.9., J.10.g [S&L]			X				2/8/84

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
20. Demonstrate ability to contin- uously monitor and control emergency worker exposure. [Objective for which capability should be demonstrated during each full-participation exercise]	K.3.a, b. [S&L]	Demonstrate capability of Parish emergency staff to carry out radiation exposure control measures.		X St. Chas. Parish	9/18/85	#9, 2/8/84 St. Charles Parish	2/8/84	2/8/84 St. John Parish; 9/18/85 St. Chas. Parish
21. Demonstrate ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and/or the general population.	J.10.f. [S&L]		X				2/8/84	
22. Demonstrate ability to supply and administer KI, once the decision has been made to do so.	J.10.e. [S&L]		X	X			Not Tested	Not Tested
23. Demonstrate ability to effect an orderly evacuation of onsite personnel.	J.2. [S&L]	Demonstrate ability to effect an orderly evacuation of onsite personnel.		X	9/18/85			9/18/85

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
24. Demonstrate ability to brief the media in a clear, accurate and timely manner.	G.3.a., G.4.a., [S&L]	Demonstrate ability to brief the media in a clear, accurate and timely manner.	X		9/18/85		9/18/85	2/8/84 St. John Parish, Not Tested St. Chas.
25. Demonstrate ability to provide advance coordination of information released.	G.4.b. [S&L]	Test and evaluate utility and State capability for coordinating release of information to the media and general public.	X		9/18/85	#7, 2/8/84 (LDEP Media Ctr)	Par- tially Met 9/18/85	2/8/84
26. Demonstrate ability to establish and operate rumor control in a coordinated fashion.	G.4.c. [S&L]		X	X			2/8/84	2/8/84
27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees. [Objective for which capability should be demonstrated during each full-participation exercise]	J.12. [S&L]			X		#15, 2/8/84 (East Baton Rouge Parish)		Not Met

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
28. Demonstrate adequacy of facilities for mass care of evacuees.	J.10.h [S&L]			X				2/8/84 Avondale Recept. Center
29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles. [Objective for which capability should be demonstrated during each full-participation exercise]	K.5.a, b [S&L]	Demonstrate capability of Parish emergency staff to carry out radiation exposure control measures.	X	X St. Chas. Parish	9/18/85	#12, 2/8/84 (Avondale Fire Dept.) #14, 2/8/84 (West Jefferson Hospital)	2/8/84	9/18/85 Met by St. Chas. Not Met Avondale F.D. or West Jefferson Hospital
30. Demonstrate adequacy of EMS transportation, personnel and procedures for handling contaminated individuals including proper decontamination of vehicle and equipment [Objective for which capability should be demonstrated during each full-participation exercise]	L.4. [S&L]	Demonstrate the adequacy of ambulance facilities and procedures for responding to a utility request for transporting a contaminated/injured individual.		X	9/18/85	#12, 2/8/84 (Avondale Fire Dept.)		9/18/85 St. Chas. EMS; Not Met Others

TABLE 3 (Cont'd)

FEMA Objectives	NUREG-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Corrective Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
31. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals. [Objective for which capability should be demonstrated during each full-participation exercise]	L.1. [S&L]	Demonstrate the adequacy of hospital facilities and procedures for handling a contaminated/injured individual transported from Waterford III.		X	9/18/85	#13, 2/8/84 (West Jefferson Hospital)		Not Met W. Jeff. Hospital; Met by Ochsner Hospital 9/18/85
32. Demonstrate ability to identify need for, request, and obtain * Federal assistance.	C.1.a., b., [S]		X				Not Tested	
33. Demonstrate ability to estimate total population exposure.	M.4. [S]		X				2/8/84	
34. Demonstrate ability to determine and implement appropriate measures for controlled recovery and reentry.	M.1. [S&L]	Demonstrate capability for implementation of recovery operation (NO REENTRY).	X	X St. John Parish	9/18/85	#11, 2/8/84 (St. John Parish)	Not Tested	Partially Met 2/8/84 St. Chas. 9/18/85 St. John

TABLE 3 (Cont'd)

FEMA Objectives	NURC-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
15. Demonstrate the ability to effectively call upon and utilize outside support agencies when local capabilities are exceeded.	C.4. [S&L]		X	X			2/8/84	2/8/84
16. Demonstrate the adequacy, operability and effective use of emergency communication equipment and the adequacy of communications procedures and methods. [Objective for which capability should be demonstrated during each full-participation exercise]	F.1. [S&L]	Demonstrate the activation and use of external communication systems and procedures between facility, State and Parish organizations.	X	X	9/18/85	#1, 2/8/84 (LOEP) #2, 2/8/84 (EDF)	9/18/85	2/8/84 9/18/85
		Demonstrate the activation and use of communications between State EDC and the Field Response Center.	X		9/18/85	#1, 2/8/84 (LOEP) #2, 2/8/84 (EDF) #6, 2/8/84 (LNED)	9/18/85	
17. Demonstrate ability to monitor Emergency Classification levels continuously and implement procedures in a timely manner. [Objective for which capability should be demonstrated during each full-participation exercise]	D.4. [S&L]	Demonstrate that timely and coordinated protective response decisions can be made for the plume exposure pathway EP2.	X	X	9/18/85		2/8/84 9/18/85	2/8/84 9/18/85

TABLE 3 (Cont'd)

FEMA Objectives	NURCC-0654 Reference	Exercise Objective September 18, 1985	Jurisdictional Responsibility		Date of Exercise	Deficiency/Area Requiring Correc- tive Action (by Tracking No.)	Date Objective Met	
			State	Local			State	Local
18. Demonstrate capability to effectively process all incoming messages in a timely manner.	E [54L]	Demonstrate the activation of EOCs and the effectiveness of security, internal procedures, displays and information systems.		X	9/18/85		2/8/84	2/8/84 9/18/85
19. Demonstrate that authority exists in activating a reception center (as necessary) in a timely manner. [Objective for which capability should be demonstrated during each full-participation exercise]	A.2.a, A.3 [54L]		X	X			2/8/84	2/8/84 East Baton Rouge Parish; Jefferson Parish