

Waterford 3 Steam Electric Station
Drill Report - 2009-09-29
Final Report - Radiological Emergency
Preparedness (REP) Program
2009-10-28





FEMA

Drill Report

Waterford 3 Steam Electric Station

Drill Date: 2009-09-29

Report Date: 2009-10-28

U.S. DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

REP Program

800 North Loop 288

Denton, TX 76209

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1. Executive Summary

On September 29 and 30, 2009, out-of-sequence Emergency Worker Monitoring and Decontamination Center and Medical Services drills were conducted for the Waterford 3 Electric Steam Station (W3), located near Taft, St. Charles Parish, Louisiana. Personnel from the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region VI, evaluated all activities. The purpose of the drills was to assess the level of preparedness of local responders to react to a simulated radiological emergency at Waterford 3 Steam Electric Station. The previous medical drill at this site was conducted on October 30-31, 2007, while the emergency worker monitoring and decontamination drill was conducted on August 05, 2003. The previous plume exercise was conducted on June 24, 2009.

Personnel from the State of Louisiana, Waterford 3 Steam Electric Station, Kenner Fire Department, Ochsner Medical Facility, and St. Charles Ambulance Services participated in the drills. Cooperation and teamwork of all the participants was evident during the drills and DHS/FEMA wishes to acknowledge these efforts.

This report contains the final evaluation of the out-of-sequence drills. The participants demonstrated knowledge of their emergency response plans and procedures and adequately demonstrated them. There were no Deficiencies, two Areas Requiring Corrective Action (ARCAs), that were corrected on the spot, and one Plan Issue was identified during the drills.

2. Introduction

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

Rule 44 CFR 350 establishes the policies and procedures for the DHS/FEMA Region VI Office's initial and continued approval of tribal, state and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on state and local government participation in joint exercises with licensees.

FEMA's Region VI responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

Taking the lead in offsite emergency planning and in the review and evaluation of radiological emergency response plans (RERPs) and procedures developed by state and local governments;

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

Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993(Federal Register, Vol. 58, No. 176, September 14, 1993); and

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

- U.S. Department of Agriculture
- U.S. Department of Commerce
- U.S. Department of Defense
- U.S. Department of Energy
- U.S. Department of Health and Human Services

- U.S. Department of Homeland Security/FEMA
- U.S. Department of Housing and Urban Development
- U.S. Department of the Interior
- U.S. Department of Transportation
- U.S. Department of Veterans Affairs
- U.S. Environmental Protection Agency
- U.S. Federal Communications Commission
- U.S. Food and Drug Administration
- U.S. Nuclear Regulatory Commission
- General Services Administration
- National Communications System.

Representatives of these agencies serve on the Regional Assistance Committee (RAC), which is chaired by the Branch Chief of the DHS/FEMA Region VI Office. Formal approval of the Waterford 3 plans were granted by FEMA on April 25, 1988 under 44 CFR 350.

A REP exercise was evaluated on June 24, 2009, by DHS/FEMA Region VI Office to assess the capabilities of state and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving Waterford 3. The purpose of this drill report is to present the drill results and findings on the performance of the off-site response organizations (OROs) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the federal evaluation team, with final determinations made by the DHS/FEMA Region VI Office RAC Chair. The criteria utilized in the evaluation process are contained in:

NUREG-0654/FEMA-REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, November 1980; and

Interim REP Program Manual, including the Radiological Emergency Preparedness Exercise Evaluation Methodology (August 2002).

Section 3 of this report, entitled "Drill Overview," presents basic information and data relevant to the drills. This section of the report contains a description of the Emergency Planning Zone (EPZ), a listing of all participating jurisdictions and functional entities that

were evaluated.

Section 4 of this report, entitled "Drill Evaluation and Results," presents detailed information on the demonstration of applicable evaluation areas at each jurisdiction or functional entity. If applicable, this section also contains: (1) descriptions of all Deficiencies and Areas Requiring Corrective Actions (ARCAs) assessed during the drills and recommended corrective actions and (2) descriptions of unresolved ARCAs assessed during previous exercises and the status of the OROs efforts to resolve them.

3. Drill Overview

This section contains data and basic information relevant to the September 29 and 30, 2009, Emergency Worker Monitoring and Decontamination and Medical Services drills to test the off-site response capabilities in the area surrounding the Waterford 3 Steam Electric Station (W3). This section of the report includes a description of the Emergency Planning Zone and a listing of all participating jurisdictions and functional entities that were evaluated.

3.1. EPZ Description

The area within 10-mile EPZ of Waterford 3 is entirely in the State of Louisiana. The most prominent natural feature in the EPZ is the Mississippi River running from westnorthwest to east-southeast through the middle of the area. The Waterford 3 EPZ involves two parishes, St. John the Baptist Parish and St. Charles Parish. There are several communities near the site within the 10-mile EPZ. These include Killona, Montz, Norco, Destrehan, Hahnville, Luling, LaPlace, Edgard, Reserve, and Garyville.

The 2000 census estimated the population of the EPZ to be 91,116 persons mainly concentrated in towns along the Mississippi River. There are two hospitals, two nursing homes, and two incarceration facilities in the EPZ.

The major highways include I-10, I-310, I-55, U.S. Highways 61, 51, and 90, and Louisiana Highways 18 and 3127. There are four railways in the EPZ, which are the Canadian National Railroad, Kansas City Southern Railroad, Union Pacific Railroad, and Burlington Northern Railroad. The Waterford 3 EPZ is divided into 16 Protective Action Sections for the purpose of emergency response and implementation of protective actions.

The area within 50 miles of Waterford 3 is entirely in the State of Louisiana. The principal exposure from this pathway would be from ingestion of contaminated water or foods such as milk, fresh vegetables or aquatic foodstuffs. The Ingestion Pathway (IPZ) consists of the parishes contained within the 10-mile EPZ plus the following parishes: Ascension, Assumption, East Baton Rouge, Iberia, Iberville, Jefferson, Orleans, Lafourche, Livingston, Plaquemine, St. Charles, St. Bernard, St. James, St. Helena, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, and West Baton Rouge. The 50-mile IPZ contains two large metropolitan areas: New

Orleans and Baton Rouge. The 2000 census reports approximately 2,503,073 persons in the parishes making up the 50-mile IPZ.

3.2. Drill Participants

Agencies and organizations of the following jurisdictions participated in the Waterford 3 Steam Electric Station drill:

Risk Jurisdictions

Kenner Fire Department

Ochsner Medical Facility

St. Charles Ambulance Services

4. Drill Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities which participated in the September 29 and 30, 2009, drill evaluation to test the off-site emergency response capabilities of local governments in the 10-mile Emergency Planning Zone surrounding the Waterford 3 Steam Electric Station.

Each jurisdiction and functional entity was evaluated on its demonstration of criteria contained in the exercise evaluation areas as outlined in the Federal Register, Vol. 67, No. 80, "FEMA - Radiological Emergency Preparedness: Exercise Evaluation Methodology" (April 25, 2002). Detailed information on the evaluation area criteria and the extent-of-play agreements for the drill is included as an appendix to this report.

4.1. Summary Results of Drill Evaluation

The matrix presented in the table on the following page presents the status of all exercise evaluation area criteria which were scheduled for demonstration during the drill by all participating jurisdictions and functional entities. Exercise criterion are listed by number and the demonstration status of those criterion are indicated by the use of the following letters:

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

D - Deficiency assessed

A - ARCA(s) assessed or unresolved ARCA(s) from previous exercise(s)

N - Not Demonstrated (Reason explained in Subsection B)

Table 1 - Summary of Drill Evaluation

DATE: 2009-09-29 SITE: Waterford 3 Steam Electric Station, LA A: ARCA, D: Deficiency, M: Met, N: Not Demonstrated		Kenner EW M/D	St. Charles Amb.	Ochsner Hosp.
Emergency Operations Management				
Mobilization	1a1			
Facilities	1b1			
Direction and Control	1c1			
Communications Equipment	1d1			
Equip & Supplies to support operations	1e1	M	M	M
Protective Action Decision Making				
Emergency Worker Exposure Control	2a1			
Radiological Assessment and PARs	2b1			
Decisions for the Plume Phase -PADs	2b2			
PADs for protection of special populations	2c1			
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1			
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1			
Protective Action Implementation				
Implementation of emergency worker exposure control	3a1	M	M	M
Implementation of KI decision	3b1			
Implementation of protective actions for special populations - EOCs	3c1			
Implementation of protective actions for Schools	3c2			
Implementation of traffic and access control	3d1			
Impediments to evacuation are identified and resolved	3d2			
Implementation of ingestion pathway decisions - availability/use of info	3e1			
Materials for Ingestion Pathway PADs are available	3e2			
Implementation of relocation, re-entry, and return decisions.	3f1			
Field Measurement and Analysis				
Adequate Equipment for Plume Phase Field Measurements	4a1			
Field Teams obtain sufficient information	4a2			
Field Teams Manage Sample Collection Appropriately	4a3			
Post plume phase field measurements and sampling	4b1			
Laboratory operations	4c1			
Emergency Notification and Public Info				
Activation of the prompt alert and notification system	5a1			
Activation of the prompt alert and notification system - Fast Breaker	5a2			
Activation of the prompt alert and notification system - Exception areas	5a3			
Emergency information and instructions for the public and the media	5b1			
Support Operations/Facilities				
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1	M		
Mon / decon of emergency worker equipment	6b1	M		
Temporary care of evacuees	6c1			
Transportation and treatment of contaminated injured individuals	6d1		M	M

4.2. Status of Jurisdictions Evaluated

This section provides information on the evaluation of each participating jurisdiction and functional entity, in a jurisdiction-based, issues only format. Presented below is a definition of the terms used in this subsection relative to demonstration status.

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

Deficiency - Listing of the demonstrated exercise evaluation area criteria under which one or more Deficiencies were assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.

Areas Requiring Corrective Action - Listing of the demonstrated exercise evaluation area criteria under which one or more ARCAs were assessed during the current exercise or ARCAs assessed during prior exercises that remain unresolved. Included is a description of the ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.

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

Prior ARCAs - Resolved - Description of ARCAs assessed during previous exercises that were resolved in this exercise and the corrective actions demonstrated.

Prior ARCAs - Unresolved - Description of ARCAs assessed during prior exercises that were not resolved during this exercise. Included is the reason the ARCA remains unresolved and the recommended corrective action to be demonstrated before or during the next biennial exercise.

The following are definitions of the exercise issues, which are discussed in this report.

A Deficiency is defined in FEMA-REP-14 as "an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that off-site emergency preparedness is not adequate to provide reasonable assurance that

appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear powerplant."

An ARCA is defined in FEMA-REP-14 as "an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

The Department of Homeland Security/Federal Emergency Management Agency(DHS/FEMA) has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues among FEMA Regions and site-specific exercise reports within each Region. It is also used to expedite tracking of exercise issues on a nationwide basis.

The identifying number for Deficiencies and ARCAs includes the following elements, with each element separated by a hyphen (-).

Plant Site Identifier - A two-digit number corresponding to the Utility Billable Plant Site Codes.

Exercise Year - The last two digits of the year the exercise was conducted.

Evaluation Area Criterion - A number and letter combination that corresponds with the criteria in the FEMA Evaluation Areas.

Issue Classification Identifier - (D = Deficiency, A = ARCA).

Exercise Issue Identification Number - A separate two (or three) digit indexing number assigned to each issue identified in the exercise.

4.2.1. Risk Jurisdictions

4.2.1.1. St. Charles Ambulance Service

- a. MET: 1.e.1, 3.a.1, 6.d.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. NOT DEMONSTRATED: None
- e. PRIOR ISSUES - RESOLVED: None
- f. PRIOR ISSUES - UNRESOLVED: None

4.2.2. Support Jurisdictions

4.2.2.1. Kenner Fire Department Emergency Worker Monitoring and Decontamination

- a. MET: 1.e.1, 3.a.1, 6.a.1, 6.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 6.a.1.

ISSUE NO.: 70-09-6a1-A-03

CRITERION: Reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h., K.5.b)

CONDITION: The participants failed to follow procedures on two separate occasions during the demonstration. The first deviation from the procedure occurred when operational checks were performed on the survey meters. The participant did not test the instruments for correct response to a range of reading indicated on the calibration sticker of each survey meter. The second occurrence was when the decontamination team released an individual before conducting a full body survey.

POSSIBLE CAUSE: The participants failed to follow procedures.

REFERENCE: NUREG 0654 Criterion K.5.a

EFFECT: If proper operation checks had not been performed on survey instrument, participants would not know if the instrument could correctly

measure levels contamination in order to determine if the levels were actually above twice background. This could result in allowing contamination to go unidentified allowing for the spread of contamination and increase of exposure. In addition, if the full body survey was not performed in accordance with procedures, the potential exists for contamination to go unnoticed allowing for the spread of contamination and increase of exposure.

CORRECTIVE ACTION DEMONSTRATED: In both cases, the individual who deviated from procedures received training and performed the task in accordance with procedures.

- c. DEFICIENCY: None
- d. NOT DEMONSTRATED: None
- e. PRIOR ISSUES - RESOLVED: None
- f. PRIOR ISSUES - UNRESOLVED: None

4.2.2.2. Ochsner Clinic Foundation Hospital

- a. MET: 1.e.1, 3.a.1, 6.d.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 6.d.1.

ISSUE NO.: 70-09-6d1-A-01

CRITERION: Facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654, F.2., H.10., K.5.a.b., L.1., 4)

CONDITION: The survey technique used when conducting exit surveys for hospital staff was not adequate. The monitor held the probe too far from the surface and moved too fast to detect the presence of contamination.

POSSIBLE CAUSE: The monitor needed additional training to perform the survey properly.

REFERENCE: NUREG-0654 K.5.a, K.5.b

EFFECT: Staff members could have exited the buffer zone with

contamination potentially spreading contamination to other people or parts of the hospital and increasing exposure levels.

CORRECTIVE ACTION DEMONSTRATED: The drill controller provided training to the monitor on survey technique and the technique was re-demonstrated properly.

- c. DEFICIENCY: None
- d. NOT DEMONSTRATED: None
- e. PRIOR ISSUES - RESOLVED: None
- f. PRIOR ISSUES - UNRESOLVED: None

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

CN	Charge Nurse
CPM	Counts Per Minute
DRD	Direct Reading Dosimeter
ED	Emergency Department
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPZ	Emergency Planning Zone
EW	Emergency Worker
FEMA	Federal Emergency Management Agency
HP	Health Physicist
KFD	Kenner Fire Department
LPRRP	Louisiana Peacetime Radiological Response Plan
NRC	Nuclear Regulatory Commission
OCFH	Ochsner Clinic Foundation Hospital
OSL	Optically Stimulated Luminescent
RAC	Regional Assistance Committee
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
RSO	Radiation Safety Officer

APPENDIX 2

DRILL EVALUATORS AND TEAM LEADERS

DATE: 2009-09-29, SITE: Waterford 3 Steam Electric Station, LA

LOCATION	EVALUATOR	AGENCY
St. Charles Ambulance Service	Brad DeKorte *Linda Gee	DHS/FEMA DHS/FEMA
Kenner Fire Department Emergency Worker Monitoring and Decontamination	Nan Calhoun Brad DeKorte Linda Gee *Tim Pflieger	DHS/FEMA DHS/FEMA DHS/FEMA DHS/FEMA
Ochsner Clinic Foundation Hospital	*Nan Calhoun Tim Pflieger	DHS/FEMA DHS/FEMA
* Team Leader		

STATE OF LOUISIANA
OFFSITE SCENARIO
FOR
WATERFORD 3 STEAM ELECTRIC STATION
September 29 & 30, 2009

Participating Organizations

KENNER FIRE DEPARTMENT
OCHSNER MEDICAL CENTER
ST. CHARLES HOSPITAL AMBULANCE SERVICE

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EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-Element 1.e – Equipment and Supplies to Support Operations

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

Locations

Kenner Fire Department, Ochsner Medical Center, St. Charles Ambulance Service

Extent of Play

Equipment, maps, displays, dosimetry, potassium iodide (KI) and other supplies will be demonstrated for use as they would in an actual emergency. This includes dosimetry and any protective gear worn or used by emergency workers.

Correction on the spot, at the discretion of and concurrence between the evaluator and the controller, may be acceptable at this location.

ARCAs

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-Element 3.a – Implementation of Emergency Worker Exposure Control

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

Locations

Kenner Fire Department, Ochsner Medical Center, St. Charles Ambulance Service

Extent of Play

Area dosimetry will be used in the radiological controlled area for the decontamination station.

Personnel at the Kenner Decontamination Station will wear simulated TLDs for the evaluation.

Personnel for the St. Charles Ambulance and Ochsner Medical Center will wear simulated TLDs for the evaluation.

Correction on the spot, at the discretion of and concurrence between the evaluator and the controller, may be acceptable at these locations.

ARCAs

None

EVALUATION AREA 6: SUPPORT OPERATIONS/FACILITIES

Sub-Element 6.a – Monitoring and Decontamination of Evacuees and Emergency Workers, and Registration of Evacuees

Criterion 6.a.1: The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h; J.12; K.5.a)

Locations

Kenner Fire Department

Extent of Play

The Kenner staff will be notified alerted and mobilized by their respective notification points. A roster indicating 24-hour coverage for their facilities will be available, and a shift change will not be demonstrated at this location. A decontamination area will actually be set-up for the demonstration.

Correction on the spot, at the discretion of and concurrence between the evaluator and the controller, may be acceptable at this location.

ARCAs

None

Sub-Element 6.b – Monitoring and Decontamination of Emergency Worker Equipment

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

Locations

Kenner Fire Department

Extent of Play

One emergency vehicle and one emergency worker will be monitored for contamination.

Controllers will interject data for a simulated contamination level for the emergency worker and vehicle. Emergency worker decontamination will be evaluated by demonstration and further discussion.

Correction on the spot, at the discretion of and concurrence between the evaluator and the controller, may be acceptable at this location.

ARCAs

None

Sub-Element 6.d – Transportation and Treatment of Contaminated Injured Individuals

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

Locations

St. Charles Ambulance Service, Ochsner Medical Center

Extent of Play

Ochsner Medical Center will be contacted. A simulated contaminated and injured person will be identified and transported by the St Charles EMS service.

Medical transportation will be staged at the Ochsner Medical Center at the beginning of the drill.

If the ambulance is not available due an actual medical emergency, transportation to the hospital will occur using a utility vehicle.

Removal of victim's clothing will be simulated. Decontamination will be performed on and around wound areas that will be unclothed, and other areas if necessary. Intrusive bioassay samples will be simulated. No actual surgical procedures, X-ray, drawing of blood samples, etc. will be conducted.

Correction on the spot, at the discretion of and concurrence between evaluator and controller, may be acceptable at this location.

ARCAs

None

GENERAL EXTENT-OF-PLAY (EOP):

1. With regard to last minute additions or changes to any previously approved Extent-of-Play, all suggested changes must be forwarded to the RAC Chair for approval.
2. The goal of all offsite response organizations (ORO) is to protect the health and safety of the public. This goal is achieved through the execution of appropriate plans and procedures. It is recognized that situations may arise that could limit the organizations in the exact execution of these plans and procedures.
3. In the event of an unanticipated situation, OROs are permitted to exercise flexibility in the implementation of their plans and procedures in order to successfully achieve the objective of protection of public health and safety and protection of the environment.
4. As a statement of fact, no ORO will deliberately deviate from its plans and procedures with the intent of avoiding responsibility.

References:

As indicated in the Extent-of-Play Agreement, the State of Louisiana requests the option to correct issues immediately as defined in FEMA Policy Paper, Strategic Review Steering Committee, Initiative 1.5, correct Issues Immediately, effective March 31, 2000, signed by Kay C. Goss, CEM, Associate Director for Preparedness, Training and Exercises. Acceptable locations/activities for on the spot correction are clearly indicated in the extent of play portion under each criterion.

STATE OF LOUISIANA
OFFSITE SCENARIO
FOR
WATERFORD 3 STEAM ELECTRIC STATION
September 29 & 30, 2009

Participating Organizations

KENNER FIRE DEPARTMENT
OCHSNER MEDICAL CENTER
ST. CHARLES HOSPITAL AMBULANCE SERVICE

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Schedule of Events

September 29 & 30, 2009

Tuesday, September 29, 2009

16:00 – 18:00 – Kenner Decontamination Station Demonstration

Wednesday, September 30, 2009

08:00 – 10:00 – Ochsner Hospital Demonstration

I. Situation

This drill will be conducted for the purpose of testing the ability of the following organizations to address an emergency at the Waterford 3 SES: Ochsner Medical Center and St. Charles Ambulance Service and the Kenner Fire Department Decontamination Station.

II. Summary of Events

Tuesday, September 29, 2009

At approximately 16:00, the Drill Control Team will notify the Kenner Fire Dispatch to notify the Kenner Emergency Worker Decontamination Station staff.

A simulated emergency worker is directed to the Kenner emergency worker decontamination station for evaluation. Upon arrival at the Kenner station, the emergency worker's car is found to be contaminated and is impounded.

When he is monitored, the emergency worker is found to be contaminated and undergoes decontamination procedures. After these procedures are performed, the emergency worker is found to be free of contamination and is dismissed.

Prior to the termination of the drill, a list of qualified replacement personnel will be made available. No shift change will take place.

Wednesday, September 30, 2009

At approximately 07:45, mechanical maintenance technician at Waterford 3, who has been working on the spent fuel crane in the Fuel Handling Building, slips and strikes his head on a crane support. He falls off the crane platform.

His safety harness breaks his fall, but he swings into the side of the spent fuel pool and fractures his left leg. He is unconscious and hanging by his safety harness. The lower part of his body is immersed in the Spent Fuel Pool water and is contaminated.

The Drill Control Team simulates the Control Room response and UNT-007-018, First Aid and Medical Care, is implemented. Response by the Emergency First Aid Team is simulated.

The patient is removed from the Spent Fuel Pool and primary surveys of the patient are performed. The patient is then transported to the PAP to await the ambulance response.

At 08:00, the Drill Control Team calls the Ochsner Medical Center to start the drill. The patient's primary survey information (vital signs) is provided and a request to St. Charles Hospital Ambulance Service is made to transport the patient to Ochsner Medical Center.

The Drill Control Team and the HP technician will provide radio updates to Ochsner during transportation of the patient.

At approximately 08:30, the ambulance will arrive at Ochsner Medical Center. The patient will be taken into the REA, decontaminated and treated for the simulated injuries. After the patient has been removed from the REA, the HP technician has surveyed and released the ambulance and the proper removal of protective clothing has been demonstrated, the medical drill will be terminated. A critique of the events will be conducted.

IV. Attachments

1. Exercise Timeline
2. Offsite Controller/Monitor Assignments

ATTACHMENT 1

TIMELINE

KENNER DECONTAMINATION STATION DEMONSTRATION

TIME	EVENT	DRILL ACTIVITY
9/29/09 15:45 T=-0:15	Drill preparations are made.	The Drill Control Team assembles at the Kenner FD.
16:00 T=0	Drill initiated by the Drill Control Team	Communications initiated from the Drill Control Team to Kenner Fire Dispatch. Kenner response personnel are notified.
16:15 T=+0:15	Responders report to the Decontamination Station	Responders are briefed, outfitted and begin set-up of the station.
16:30 T=+0:30	An emergency worker arrives at the Kenner Decontamination Station and monitoring procedures are initiated.	
16:35 T=+0:35 CC-1A CC-2A CC-2B CC-3A	The emergency worker vehicle is found to be contaminated.	Vehicle is moved to the impoundment area and the interior is surveyed. Vehicle remains in the impoundment area.
16:45 T=+0:45 CC-4A CC-4B CC-5A	An emergency worker is found to be contaminated.	Decontamination measures are initiated.
17:00 T=+1:00 CC-6A	The contaminated emergency worker is surveyed after decontamination procedures and is found to be clean.	The emergency worker is released.
17:30 T=+1:30	Decontamination Station personnel make available shift change information.	
18:00 T=+2:00	The drill is terminated.	

ATTACHMENT 2

TIMELINE

OCHSNER HOSPITAL DEMONSTRATION

TIME	EVENT	DRILL ACTIVITY
9/30/09 07:30 T=-0:30 CC-1	Drill preparations are made.	The Drill Control Team and an HP technician assemble at Ochsner Medical Center. The patient will be "made up" in the St. Charles Hospital Ambulance and the Drill personnel will be briefed.
08:00 T=0 CC-2	Drill initiated by the Drill Control Team.	The Drill Control Team notifies Ochsner Medical Center of the medical emergency and that St. Charles Hospital Ambulance Service has been requested to respond.
CC-3		If Ochsner Medical Center is unable to participate, the medical emergency drill will be terminated.
08:10 T=+0:10 CC-4 CC-5	St. Charles Ambulance departs W3 and establishes radio contact with Ochsner.	St. Charles Hospital Ambulance Service radios Ochsner that they have left W3 and ETA to the hospital is approximately 20 minutes.
08:20 T=+0:20 CC-6	St. Charles Ambulance updates ETA.	St. Charles Hospital Ambulance Service radios Ochsner that they are approximately 10 minutes from Ochsner. The patient's condition will not change while simulating transportation to Ochsner Medical Center.
08:30 T=+0:30 CC-7	Patient arrives at Ochsner Medical Center.	The patient is removed from the ambulance and taken to the REA. The hospital personnel decontaminate the patient and begin treatment of the injury.
CC-8	HP surveys the ambulance for contamination.	The ambulance is determined to be clean and is released.
CC-9	Drill terminated. Critique conducted.	When the patient is removed from the REA, the ambulance has been released and PC removal has been demonstrated, the drill will be terminated.

Kenner Decon Station Controller
Kenner Decon Station Evaluator
Kenner Decon Station Evaluator
Kenner Decon Station Evaluator
Medical Lead Controller
Medical Controller
Medical Monitor
HP Technician

A. Ertel
G. Gothard
P. Auzenne
D. Guidry
Michael Huskey
Donna Dawson
Frank Davis
Luke Schaubhut

APPENDIX 5

PLANNING ISSUES

1. Ochsner Clinic Foundation Hospital

ISSUE NO.: 70-09-6d1-P-02

CONDITION: Radiation Emergency Area staff decontaminated an individual using an action level not documented in the Ochsner Clinic Foundation Hospital Radiation Accident Plan.

POSSIBLE CAUSE: The Ochsner Clinic Foundation Hospital Radiation Accident Plan does not indicate an action level to perform decontamination.

REFERENCE: NUREG-0654 K.5.a

EFFECT: An individual could possibly not be fully decontaminated before being released, allowing contamination to be spread.

RECOMMENDATION: The LPRRP currently prescribes that, "Individuals will be surveyed for contamination in accordance with established procedures. Persons showing on their body a reading greater than 0.1 mR/hour above background on a survey meter, or persons setting off the alarm while surveyed with a portal monitor, will be considered contaminated, and will be processed through decontamination procedures." (LPRRP Rev. 10, Basic Plan, Chapter 9, Section IV.B.3). It is recommended that the LPRRP be modified to include an action level appropriate to the survey meter/probe combination in use for contamination surveys (such as the survey meters in use at the hospital) by specifying a count per minute reading (CPM) reading that would be closely equivalent to the 0.1 mR/hour reading that is currently specified in the LPRRP. The hospital (which uses a meter that reads in CPM) should then adopt the prescribed CPM reading as specified in the change to the LPRRP and include the action level into the hospital procedure.