Grand Gulf Nuclear Station

After Action Report/ Improvement Plan

Drill Date - September 28, 2010

Radiological Emergency Preparedness (REP) Program

FEMA

Published October 20, 2010

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EXECUTIVE SUMMARY

On September 28, 2010 an out-of-sequence Medical Services drill was conducted for the Grand Gulf Nuclear Station (GGNS), located in Port Gibson, Claiborne County, Mississippi. Personnel from the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region VI evaluated all activities. The purpose of the drill was to assess the level of preparedness of local responders to react to a simulated radiological emergency at GGNS. The previous plume exercise was conducted on September 9, 2009.

Personnel from the State of Louisiana, Riverland Medical Center, Northeast Louisiana Ambulance Service, and Grand Gulf Nuclear Station participated in the drill. Cooperation and teamwork of all the participants was evident during the drill and DHS/FEMA wishes to acknowledge these efforts.

This report contains the final evaluation of the out-of-sequence drill. The participants demonstrated knowledge of their emergency response plans and procedures. There was one Deficiency and three Areas Requiring Corrective Action (ARCA) identified during the drill. One ARCA was corrected during the drill and no Plan Issues were identified.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name
Grand Gulf Nuclear Station

Type of Exercise
Drill

Exercise Date
September 28, 2010

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
Radiological Emergency

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Grand Gulf Nuclear Station drill:

- Risk Jurisdictions
  - Tensas Parish Office of Emergency Preparedness
- Support Jurisdictions
  - Riverland Medical Center
  - Northeast Louisiana Ambulance Service
- Private Organizations
  - Grand Gulf Nuclear Station

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The DHS/FEMA Region VI Office evaluated the drill on September 28, 2010 to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans and procedures to protect the public health and safety during a radiological emergency involving Grand Gulf Nuclear Station (GGNS). The purpose of this report is to present the results and findings on the performance of the offsite response organizations during a simulated radiological emergency.

2.2 Exercise Objectives, Capabilities and Activities

Exercise objectives and identified Capabilities/REP Criteria selected to be exercised are discussed in the Exercise Plan (EXPLAN), Appendix D.

2.3 Scenario Summary

The drill scenario was developed to evaluate the response of drill participants to an incident requiring evacuation of the public from the Louisiana portion of the 10-mile Emergency Planning Zone surrounding the Grand Gulf Nuclear Station. The drill scenario provided for the evaluation of the Riverland Medical Center and Northeast Louisiana Ambulance Service's ability to transport and treat a radiologically contaminated injured individual.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Drill Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the September 28, 2010, drill evaluation to test the offsite emergency response capabilities of Riverland Medical Center and Northeast Louisiana Ambulance Service to transport and treat a contaminated injured individual.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria delineated in the exercise evaluation areas as outlined in the April 25, 2002, Federal Register, Radiological Emergency Preparedness: Evaluation Methodology. Detailed information on the exercise evaluation area criteria and the extent of play agreement used in this drill are found in Appendix D of this report.

3.2 Summary Results of Drill Evaluation

The matrix presented in Table 3.1 on the following page, presents the status of all drill evaluation area criteria that were scheduled for demonstration during this drill by all participating jurisdictions and functional entities. Exercise criteria are listed by number and the demonstration status is 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 - ARCAs assessed or unresolved ARCAs from previous exercises

P - Plan Issue

N - Not Demonstrated

Table 3.1 - Summary of Drill Evaluation

DATE: 2010-09-28 SITE: Grand Gulf Nuclear Station, MS M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		NELA	RMC
Emergency Operations Management			
Mobilization	1a1		
Facilities	1b1		
Direction and Control	1c1		
Communications Equipment	1d1		
Equip & Supplies to support operations	1e1	M	A
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	A
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		
Mon / decon of emergency worker equipment	6b1		
Temporary care of evacuees	6c1		
Transportation and treatment of contaminated injured individuals	6d1	M	D

3.3 Criteria Evaluation Summaries

3.3.1 Support Jurisdictions

3.3.1.1 Riverland Medical Center

a. MET: None

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

ISSUE NO.: 28-10-1e1-A-01

CRITERION: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations.

CONDITION: The Ludlum 12 Survey Meters did not have a Range of Reading sticker affixed.

POSSIBLE CAUSE: Lack of training or oversight. Unaware of requirements.

REFERENCE: Interim REP Program Manual under Criterion 1.e.1 – Equipment, page III-111. NUREG-0654, H.7,10; J.10.a,b,e, J.11; K.3.a

EFFECT: The emergency worker is not able to ensure the equipment is measuring properly.

RECOMMENDATION: Affix a Range of Readings sticker to the Ludlum 12 survey meter. Provide training on the proper use of the Range of Readings sticker and operations of the equipment.

ISSUE NO.: 28-10-3a1-A-02

CRITERION: OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers IAW plans and procedures. Emergency workers periodically and at the end of each mission read and record dosimeter reading. (NUREG-0654, K.3)

CONDITION: Administrative exposure limits and background levels were not identified to medical personnel at the hospital during the drill.

POSSIBLE CAUSE: Medical center personnel have not been adequately trained on dosimetry.

REFERENCE: NUREG 0654 K.3.a, b

EFFECT: Medical center personnel would not have known when administrivative exposure levels were exceeded.

RECOMMENDATION: Additional training on dosimetry should be provided.

c. DEFICIENCY: 6.d.1.

ISSUE NO.: 28-10-6d1-D-03

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: Minimal or no contamination control; no radiological briefing for Emergency Workers (EWs); emergency workers assigned as Monitors were unsure of how to use or read the survey meters; and no range of readings stickers on survey meters. The following discrepancies were observed:

- Emergency workers were not provided a radiological briefing. EWs were not aware of the exposure limits or background levels. No contamination threshold limits were identified.
- The Monitor assigned to assist with transfer of patient from ambulance to hospital staff did not frisk the patient or gurney upon transfer from the ambulance to the hospital staff.
- During the ambulance survey, the monitor was not sure of what steps to take if

contamination was found.
- The REA Monitor was unaware of how to use swipes and unclear of the procedures for disposal of contaminated waste.
- Monitors were not knowledgeable on how to use or read the survey meters when surveying the patient. The controller provided (simulated) reading that the meter was off scale, the monitor did not understand she needed to adjust the meter dial to the next higher scale and coaching was consistently provided throughout the drill.
- The REA Monitor did not conduct an initial patient contamination survey until after the first time out was called by the GGNS representative and conducted training on how and why contamination controls are important.
- After training, the REA Monitor continued to demonstrate poor surveying techniques and required continued coaching.
- The REA medical staff used poor technique in removing potentially contaminated sheets, clothing and medical equipment (neck brace, backboard, etc).
- REA nurse may have cross contaminated medical equipment and supplies, prior to changing gloves, by accessing sealed cabinets and following the procedures to request supplies from Buffer Zone staff.
- REA staff did not perform glove changes until after time out and training was provided.
- Throughout the drill the REA Monitor did not survey the REA staff hands or potentially contaminated areas.
- A basin of contaminated saline used to irrigate the wound was left at the patient's feet on the gurney and later on the counter without regard of proper disposal.
- The REA Monitor was the first EW to demonstrate the doffing of PPE and exit procedures from the REA. She left the still-running survey meter on the counter and proceeded to step on the "step off" pad without removing the booties or being surveyed by the Buffer Zone nurse. The monitor did not demonstrate the proper procedure to remove the PPE even though the procedures were posted on the wall.
- The Buffer Zone nurse's surveying technique was too fast and the distance was inconsistent, at times too far (greater that ½ -1") and at times the meter came in contact with the EW being surveyed.
- Maintenance staff were tasked with completing the closeout of the REA and Buffer Zone area and had no knowledge or training of proper procedures.
- Majority of Emergency Workers departed the area prior to the drill being terminated.

POSSIBLE CAUSE: Inadequate training and failure to follow procedures.

REFERENCE: NUREG-0654, F.2; H.10; K.5.a, b: L.1, 4 and Hospital Emergency Department Management of Accidents Procedures for Riverland Medical Center.

EFFECT: The patient would not have been appropriately decontaminated, and the staff could have received contamination by the poor techniques that would result in a spread of contamination to the workers in the area.

RECOMMENDATION: Conduct and reinforce training as needed. Update procedures.

d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.2 Private Organizations

3.3.2.1 Northeast Louisiana Ambulance Service

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

ISSUE NO.: 28-10-6d1-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 ambulance technician didn’t demonstrate a glove change while assessing the victim.

POSSIBLE CAUSE: The checklist referenced by the ambulance technicians should include glove changes.

REFERENCE: NUREG-0654, K.3.a., 3.b; Tensas Parish Office of Emergency Preparedness, Emergency Medical Services (EMS)/Ambulance Procedure for Response to Radiological Emergencies, Revision 3: September 24, 2010.

EFFECT: Contamination from the victim could have remained on the ambulance technician's gloves transferring contamination to the ambulance and other equipment.

CORRECTIVE ACTION DEMONSTRATED: Training was conducted and several glove changes were subsequently demonstrated throughout the drill.

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

SECTION 4: CONCLUSION

Based on the results of the drill, and the assessment of a deficiency against Riverland Medical Center, the Medical Center will be required to redemonstrate and correct the issues identified within this report. The Northeast Louisiana Ambulance Service satisfactorily demonstrated their required criteria and no additional demonstration is necessary until the next regularly scheduled drill/exercise at this location.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 28-10-1e1-A-01	**Criterion: 1e1**
ISSUE: The Ludlum 12 Survey Meters did not have a Range of Reading sticker affixed.	
RECOMMENDATION: Affix a Range of Readings sticker to the Ludlum 12 survey meter. Provide training on the proper use of the Range of Readings sticker and operations of the equipment.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 28-10-3a1-A-02	**Criterion: 3a1**
ISSUE: Administrative exposure limits and background levels were not identified to medical personnel at the hospital during the drill.	
RECOMMENDATION: Additional training on dosimetry should be provided.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 28-10-6d1-D-03	**Criterion: 6d1**

ISSUE: Minimal or no contamination control; no radiological briefing for Emergency Workers (EWs); emergency workers assigned as Monitors were unsure of how to use or read the survey meters; and no range of readings stickers on survey meters. The following discrepancies were observed:

- Emergency workers were not provided a radiological briefing. EWs were not aware of the exposure limits or background levels. No contamination threshold limits were identified.
- The Monitor assigned to assist with transfer of patient from ambulance to hospital staff did not frisk the patient or gurney upon transfer from the ambulance to the hospital staff.
- During the ambulance survey, the monitor was not sure of what steps to take if contamination was found.
- The REA Monitor was unaware of how to use swipes and unclear of the procedures for disposal of contaminated waste.
- Monitors were not knowledgeable on how to use or read the survey meters when surveying the patient. The controller provided (simulated) reading that the meter was off scale, the monitor did not understand she needed to adjust the meter dial to the next higher scale and coaching was consistently provided throughout the drill.
- The REA Monitor did not conduct an initial patient contamination survey until after the first time out was called by the GGNS representative and conducted training on how and why contamination controls are important.
- After training, the REA Monitor continued to demonstrate poor surveying techniques and required continued coaching.
- The REA medical staff used poor technique in removing potentially contaminated sheets, clothing and medical equipment (neck brace, backboard, etc).
- REA nurse may have cross contaminated medical equipment and supplies, prior to changing gloves, by accessing sealed cabinets and following the procedures to request supplies from Buffer Zone staff.
- REA staff did not perform glove changes until after time out and training was provided.
- Throughout the drill the REA Monitor did not survey the REA staff hands or potentially contaminated areas.
- A basin of contaminated saline used to irrigate the wound was left at the patient's feet on the gurney and later on the counter without regard of proper disposal.
- The REA Monitor was the first EW to demonstrate the doffing of PPE and exit procedures from the REA. She left the still-running survey meter on the counter and proceeded to step on the "step off" pad without removing the booties or being surveyed by the Buffer Zone nurse. The monitor did not demonstrate the proper procedure to remove the PPE even though the procedures were posted on the wall.
- The Buffer Zone nurse's surveying technique was too fast and the distance was inconsistent, at times too far (greater that ½ -1") and at times the meter came in contact with the EW being surveyed.
- Maintenance staff were tasked with completing the closeout of the REA and Buffer Zone area and had no knowledge or training of proper procedures.
- Majority of Emergency Workers departed the area prior to the drill being terminated.

RECOMMENDATION: Conduct and reinforce training as needed. Update procedures.

CORRECTIVE ACTION DESCRIPTION:

CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

APPENDIX B: DRILL EVALUATORS AND TEAM LEADERS

DATE: 2010-09-28, SITE: Grand Gulf Nuclear Station, MS

LOCATION	EVALUATOR	AGENCY
Riverland Medical Center	*Bill Bischof Brad DeKorte Elsa Lopez	DHS/FEMA DHS/FEMA DHS/FEMA
Northeast Louisiana Ambulance Service	*Linda Gee	DHS/FEMA
* Team Leader		

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ARCA	Areas Requiring Corrective Action
BZ	Buffer Zone
DRD	Direct Reading Dosimeter
EMD	Emergency Management Director
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
ER	Emergency Room
EW	Emergency Worker
GE	General Emergency
GGNS	Grand Gulf Nuclear Station
NELA	Northeast Louisiana Ambulance Service
NP	Nurse Practitioner
PPE	Personal Protective Equipment
REA	Radiation Emergency Area
RMC	Riverland Medical Center
TLD	Thermoluminescent Dosimeter

APPENDIX D: EXERCISE PLAN

RADIOLOGICAL EMERGENCY MEDICAL DRILL SCENARIO (MS-1)

FOR

GRAND GULF NUCLEAR STATION

September 28, 2010

Participants

Riverland Medical Center
Northeast Ambulance Service

I. PURPOSE

This simulated radiation medical emergency is being conducted in order to exercise the emergency medical response for Grand Gulf Nuclear Station (GGNS) at Riverland Medical Center and Northeast Ambulance Service. The basic objective is to assess the ability of the hospital and ambulance emergency service to handle contaminated and injured patients.

II. PROPOSED SCHEDULE

DATE:	September 28, 2010	
TIME:	8:30 am	Drill Starts (GGNS General Emergency)
	9:00 am	Accident Reported
	9:30 am	Patient Arrives at Hospital (Approximate)
	12:00 pm	Drill Terminates (Approximate)
	12:00 pm	Player Critique
	12:30 pm	Evaluator Comments
LOCATIONS:	Riverland Medical Center	
INJURY/ILLNESS:	Blow to the forehead with minor bleeding and bruising, left shoulder injury with possible dislocation, open puncture wound to left hand with possible fracture	

III. DISCLAIMER

Real life emergencies take precedence over this demonstration. In case of an emergency, the demonstration will be cancelled and rescheduled for a later date.

IV. EVALUATION AREAS AND EXTENT-OF-PLAY-OFFSITE

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 operation. (NUREG-0654, H.7, 10; J.10.a, b, e J.11; K.3.a)

Locations

Riverland Medical Center and Northeast Ambulance Service

Extent of Play

The ambulance crew should be knowledgeable on how to acquire dosimetry kits and potassium iodide (KI) during a declared emergency. The ambulance crew will discuss the method of obtaining dosimetry kits and KI from the parish when an emergency has been declared. The discussion can be accomplished by interview with the evaluator. In accordance with the scenario for this evaluation, the utility will provide necessary dosimetry to the ambulance crew.

"Correction-on-the-spot" will be applicable for this demonstration.

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

Riverland Medical Center and Northeast Ambulance Service

Extent of Play

"Correction-on-the-spot" will be applicable for this demonstration.

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

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

Riverland Medical Center and Northeast Ambulance Service

Extent of Play

The initial call(s) will be simulated by cell phone from the Tensas Emergency Director who will be on location at Riverland Medical Center.

No actual surgical procedures, X-ray, blood samples, starting of IV's etc. will be demonstrated. No actual transportation to Highway 604 to pickup the victim/patient. To avoid taking the ambulance out of service for an extended time, the area behind the hospital will be used to simulate the accident scene. The ambulance will be staged at the hospital to start the demonstration.

Once the patient is loaded on the ambulance, play will pause for approximately 15 minutes to simulate the travel time between the accident scene on Highway 65 and Ferriday.

"Correction-on-the-spot" will be applicable for this demonstration.

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.

NARRATIVE SCENARIO

INITIAL CONDITIONS

Grand Gulf Station has declared a General Emergency based on Offsite Radiation Monitoring Team reports. An evacuation of all people within five miles of Grand Gulf has commenced. Since the wind direction is from 90 degrees (blowing into the West) zone 12 is being evacuated to Tallulah and Ferriday, and many areas within five miles of the plant are expected to be contaminated. **(Refer to Attachment A.)**

A man fishing at Dishroon Lake (approximately 3 miles from Grand Gulf) was in the plume when he heard the evacuation sirens. It took him about 25 minutes to get his boat out of the lake, and get in his car to evacuate. He travelled west on Highway 604 around the North Edge of Lake Bruin, and got to Highway 65 when his car stalled. He opened the hood of his car to try to get the engine running and the hood latch failed and he was struck in the head, left shoulder and left hand by the falling hood. He suffered the following injuries:

- Blow to the forehead with minor bleeding and bruising
- Left shoulder injury, possible dislocation
- Open puncture wound to left hand, possible broken hand, swelling, bruising and moderate bleeding

The fisherman wrapped his hand with a pressure dressing to stop the bleeding and is sitting on the ground in front of his car. An evacuee travelling North on Highway 65 called 911 to report the accident. The passerby did not stop but continued North toward Tallulah.

NOTE: The accident scene will be set up in the back of Riverland Medical Center to prevent the ambulance from leaving it's service area. Once the patient is loaded on the ambulance, play will pause for approximately 15 minutes to simulate the travel time between the accident scene on Highway 65 and Ferriday.

CONTROLLER MESSAGE

Cue Card: # 1
Time: 0830

THIS IS A DRILL

Controller The controller will simulate a call from the Tensas Parish 911 Center to report the General Emergency.

Message: Grand Gulf Nuclear Station has declared a General Emergency.

Anticipated Response: Northeast Ambulance Service will contact Riverland Medical Center.

Due to events in progress, the ambulance crew and hospital should begin preparations for the transport/treatment of the contaminated individual according to their procedures.

THIS IS A DRILL

CONTROLLER MESSAGE

Cue Card: # 2
Time: 0900

THIS IS A DRILL

Controller: The controller will simulate from the Tensas Parish 911 Center relaying a call from a passerby of the accident.

Message: There is a guy on Highway 65 at the intersection of Highway 604 sitting by his car. His hood is up and it looks like he's bleeding.

Anticipated Response: As soon as EMS receives the call, it will immediately notify the hospital. The ambulance will proceed (simulated) to where the patient is, while the hospital finalizes the setup for a contaminated injured patient.

THIS IS A DRILL

CONTROLLER MESSAGE

Cue Card: # 3

THIS IS A DRILL

Controller: The controller will provide the ambulance crew any information required for them to make a diagnosis.

Message:

Injury: Blow to forehead with minor bleeding and bruising.
Blow to the left shoulder with possible dislocation
Open puncture wound to left hand, possibly broken with swelling, bruising, and moderate bleeding.

Vitals: Initial – Use actual vitals.
During transport – Use actual vitals.

Anticipated Response: Vital signs should be taken, the wound should be bandaged, the shoulder should be splinted and/or stabilized as necessary. The patient should be removed from the area.

During transport to the hospital the patient should be observed and vital signs retaken. All information should be relayed to the hospital.

THIS IS A DRILL

CONTROLLER MESSAGE

Cue Card: # 4

THIS IS A DRILL

Controller: The controller will provide the REA team additional information required to make a diagnosis and treat the patient, when requested.

Message:

Injury: 3" long. x 1/2" deep cut (contaminated area 1" around wound)

Survey Readings: Use **Cue Card # 4A** to provide survey readings for three areas.

X-Rays: X-Ray are to be simulated.
Use **Cue Card # 4B** to provide shoulder x-ray.

Anticipated Response: The REA team should have the patient's wounds surveyed for contamination. Once determined that only the head wound is contaminated, the REA staff should decon the area. An x-ray of the shoulder should be ordered and simulated.

Blood or other samples, IV's, and surgical procedures will be simulated, if required.

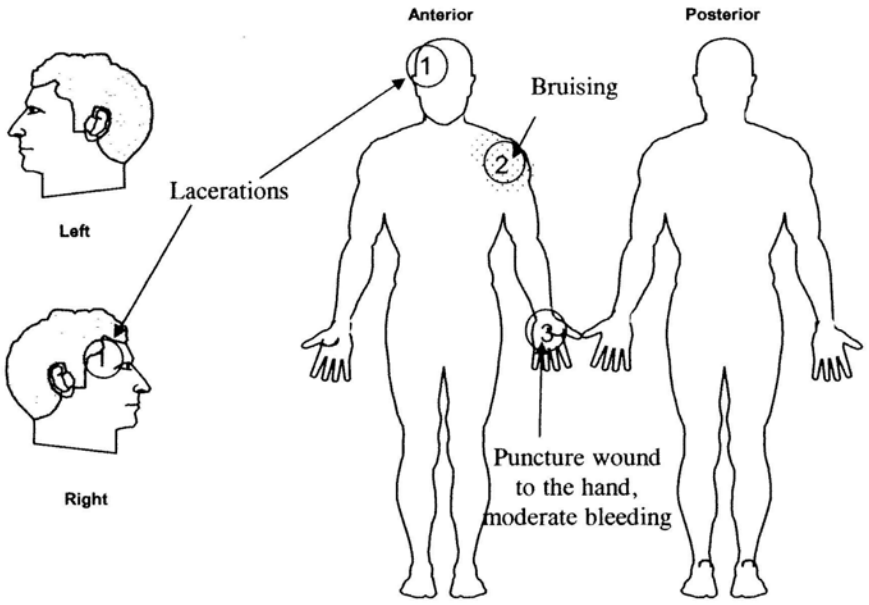
Note: The hospital staff will use both **mR/hr** and **cpm** for radiation measurements. (Monitoring of the patient will be in mR/hr, while contamination surveys will be in cpm.)

THIS IS A DRILL

Cue **Card: # 4A**

STATE OF LOUISIANA / GRAND GULF NUCLEAR STATION
2010 MEDICAL RESPONSE DRILL
September 28, 2010

Patient Contamination Levels



Area	Type of Contamination *	Time	Size of Area	CPM Before Decon	CPM After Decon	Decon Methods Used
1	Wound		1 %	2500	500	
2	External		3 %	1500	Bkgd	
3	Wound		2 %	4500	Bkgd	
			%			
			%			
			%			
			%			
			%			

NOTE: * - External, Wound or Orifice

Cue Card: # 4B

STATE OF LOUISIANA / GRAND GULF NUCLEAR STATION
2010 MEDICAL RESPONSE DRILL
September 28, 2010

CONTROLLER MESSAGE

Cue Card: # 5

THIS IS A DRILL

Controller: The controller will provide a the ambulance crew with contamination information.

Message: **Survey Readings:** All readings are at background for both the ambulance and the two ambulance technicians.

Anticipated Response: The ambulance crew can return to duty.

THIS IS A DRILL

CONTROLLER MESSAGE

Cue Card: # 6

THIS IS A DRILL

Controller: The controller will provide a final background reading once the patient has been decontaminated and will terminate the drill.

Message:

Survey Readings: All readings are at background.

Termination: The drill is terminated, please have one team member demonstrate exiting the room and removing protective equipment.

Anticipated Response: The REA team will prepare the patient for transport, transferred to a clean gurney, and removed from the room for more medical procedures or admission.

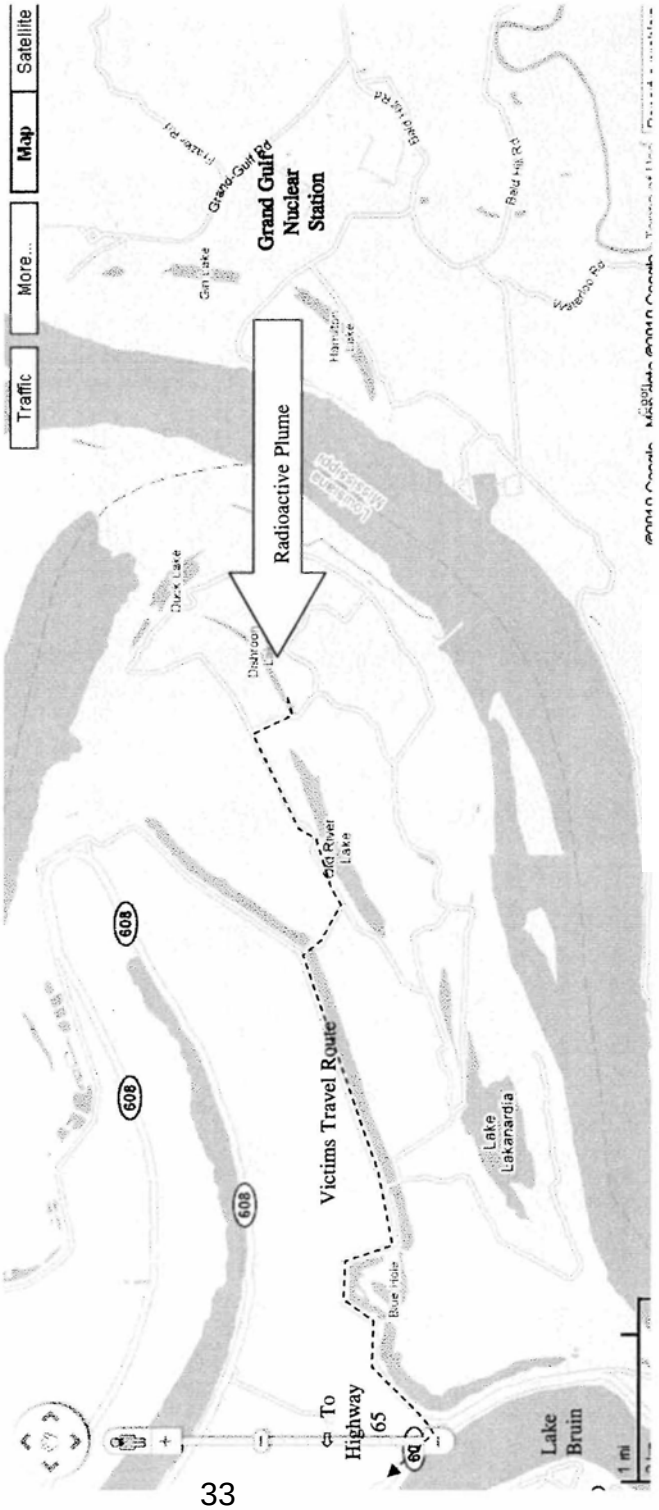
One team member will demonstrate how to exit the contaminated room and remove their personal protective equipment.

The area will be returned to normal by the hospital staff.

THIS IS A DRILL

ATTACHMENT A

STATE OF LOUISIANA / GRAND GULF NUCLEAR STATION
2010 MEDICAL RESPONSE DRILL
September 28, 2010



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