



FEMA

June 21, 2011

Mr. Elmo E. Collins, Jr.
Regional Administrator
U.S. NRC, Region IV
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4005

Dear Mr. Collins:

Enclosed is a copy of the radiological emergency preparedness final report for the River Bend Station (RBS) medical services drill and American Radiation Services, International evaluated on May 25-26, 2011. There were no Deficiencies, one Area Requiring Corrective Action (ARCAs), corrected on the spot and one Plan Issue identified during the drills.

Based on the results of the drill, the offsite radiological emergency response plans and preparedness for the State of Louisiana and the affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency. Therefore, 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of Louisiana site-specific to RBS will remain in effect.

A copy of this report was provided electronically to Ms. Lisa Gibney, REP HQ Branch Chief and HQ Project Officer, U.S. Nuclear Regulatory Commission, in Washington, D.C. Should you have questions, please contact Lisa Hammond, Regional Assistance Committee Chair, at (940) 898-5199, or Elsa Lopez, Radiological Emergency Preparedness Site Specialist, at (940) 898-5308.

Sincerely,

A handwritten signature in black ink that reads "Lisa Hammond". The signature is stylized and cursive.

Lisa Hammond
RAC Chair

Enclosure

cc: NRC HQ-Lisa Gibney
DHS-FEMA-HQ-Vanessa Quinn
DHS-FEMA-HQ-Craig Fiore
LDEQ-Peter Ricca
NRC Document Control Desk
GOHSEP-Mark A. Cooper
RBS-Troy D. Burnett



River Bend Station

After Action Report/ Improvement Plan

Drill Date - May 25, 2011

Radiological Emergency Preparedness (REP) Program



FEMA

Published June 21, 2011

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River Bend Station After Action Report/Improvement Plan

Published June 21, 2011

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EXECUTIVE SUMMARY

On May 25 and 26, 2011, out-of-sequence Laboratory and Medical Services drills were conducted for the River Bend Station (RBS), located near St. Francisville, 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 drill was to assess the level of preparedness of local responders to react to a simulated radiological emergency at River Bend Station. The previous medical drill at this site was conducted on September 2, 2010. The previous plume and ingestion exercise was conducted on June 8-9, 2010. American Radiation Services International is a contracted State laboratory, this is the initial and first evaluation at this location.

Personnel from the State of Louisiana, River Bend Station, West Feliciana Hospital, West Feliciana Ambulance and American Radiation Services International participated in the drills. 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 drills. The participants demonstrated knowledge of their emergency response plans and procedures and adequately demonstrated them. There were no Deficiencies, one Area Requiring Corrective Action (ARCA) which was corrected on the spot, and one Plan Issue identified during the drills.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

River Bend Station

Type of Exercise

Drill

Exercise Date

May 25, 2011

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

Lisa Hammond

RAC Chair

FEMA Region VI

Technological Hazards Branch Chief

800 N. Loop 288

Denton, Texas, 76209

940-898-5199

lisa.hammond@dhs.gov

Elsa Lopez

Lead Planner

FEMA Region VI

Technical Hazards Program Specialist

800 N. Loop 288

Denton, Texas, 76209
940-898-5308
elsa.lopez@dhs.gov

Cheryl Chubb
State Planner
Louisiana Department of Environmental Quality
Environmental Scientist
602 N. Fifth Street
Baton Rouge, Louisiana, 70802
225-219-3626
cheryl.chubb@la.gov

1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the River Bend Station drill:

State Jurisdictions

Louisiana Department of Environmental Quality

Risk Jurisdictions

West Feliciana Parish Hospital

West Feliciana Parish Ambulance

Private Organizations

American Radiation Services, International

River Bend Station

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The DHS/FEMA Region VI Office evaluated the drills on May 25 and 26, 2011 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 River Bend Station (RBS). The purpose of this report is to represent 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 River Bend Station. The drill scenario provided for the evaluation of the American Radiation Services to provide laboratory operations; West Feliciana Hospital and West Feliciana Ambulance ability of transportation and treatment of a 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 May 25 and 26, 2011 drill to test the offsite emergency response capabilities of state and local governments in the 10-mile EPZ surrounding the River Bend Station.

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: Emergency Operations Management, Protective Action Decision Implementation, Field Measurement and Analysis, and Support Operations/Facilities. 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, represents the status of all exercise evaluation area criteria that were scheduled for demonstration during this exercise 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 exercises)

D - Deficiency assessed

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

N - Not Demonstrated

Table 3.1 - Summary of Drill Evaluation

DATE: 2011-05-25 SITE: River Bend Station, LA M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		WFA	WFH	ARS
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			P
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	M	

3.3 Criteria Evaluation Summaries

3.3.1 Risk Jurisdictions

3.3.1.1 West Feliciana Ambulance

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

3.3.2 Support Jurisdictions

3.3.2.1 West Feliciana Hospital

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

3.3.3 Private Organizations

3.3.3.1 American Radiation Services, International

- a. MET: 1.e.1, 3.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 4.c.1.

ISSUE NO.: 53-11-4c1-A-01

CRITERION: Laboratory is capable of performing required radiological analyses to support PADs

CONDITION: Appropriate contamination controls were not demonstrated after

taking an aliquot of a sample with high levels of radioactive material.

POSSIBLE CAUSE: The soil sample was processed inside the fume hood as it measured 1000 microR/hr. The “parent” sample container was carefully opened and a small amount removed using a tongue depressor. The soil was put into a 47 mm petri dish sample holder. When the transfer was complete, the sample was sealed, weighed, labeled and put in a plastic bag on the sample transport cart. It was noted that although care was taken during handling, the outside of the 47 mm petri dish was not surveyed for removable contamination prior to weighing or putting onto a bag on the sample transfer cart. The Laboratory Sample Preparation Technician indicated that when processing high activity samples she would typically have a second person assist to ensure appropriate contamination controls were utilized.

REFERENCE: NUREG 0654, J.11

EFFECT: Sample analysis containers would typically be removed from the plastic bag by the laboratory technician when counting the sample. If the analysis container had removable contamination it could be spread inside the count room and inside the gamma spectroscopy equipment detector shield caves.

CORRECTIVE ACTION DEMONSTRATED: A time out was called; the drill controller discussed the need for more stringent contamination controls with the Radiation Safety Officer and Sample Preparation Technician. A second individual assisted the Sample Preparation Technician and another sample aliquot was taken. When the aliquot container (47 mm petri dish) was closed, it was sealed with tape, the outside was cleaned with “Simple Green” cleaner and the exterior surveyed for removable contamination prior to being placed on the transfer cart.

- c. DEFICIENCY: None
- d. PLAN ISSUES: 4.c.1.

ISSUE NO.: 53-11-4c1-P-02

CRITERION: Laboratory is capable of performing required radiological analyses to support PADs

CONDITION: The Louisiana Department of Environmental Quality (LDEQ) has not pre-identified criterion for accident and post-accident sample analysis and provided that criterion to the ARS International contract laboratory.

POSSIBLE CAUSE: The LDEQ contract with ARS International includes detailed specifications for the ARS Incorporated contract laboratory to analyze environmental samples that are routinely submitted by LDEQ. The LDEQ contract does not include nuclear power plant post-accident sample analysis criterion.

REFERENCE: NUREG 0654, J.11; State of Louisiana, Department of Environmental Quality with ARS International, dated April 22, 2010 (LDEQ contract #68788)

EFFECT: The lack of accident specific analysis requirements could cause a delay in sample processing. A delay will affect timely assessments and decisions to be made by LDEQ.

RECOMMENDATION: Modify the LDEQ contract or LDEQ procedures, as appropriate, to provide ARS International the information needed to provide analyses of sample media on a timely basis, of sufficient quality and sensitivity to support Louisiana's protective action assessments and decisions. Gamma sample analysis libraries, sample count times and detection limits during accident conditions will be different than those utilized for routine environmental analysis. Make changes to the LDEQ contract or plans, as appropriate. For example:

- Review the ARS laboratory's analysis library of isotopes to ensure they are analyzing for all nuclear power plant isotopes of concern, provide updates to the library, as needed.
- Identify isotopes of concern to be reported to LDEQ, based on sample type (e.g. air samples (plume and post-plume), deposition (soil), milk, food stuffs and drinking water.
- Identify the required Minimum Detectable Activity (MDA) for each isotope based on sample type and whether plume or post-plume samples (air samples). Specify the samples be counted just long enough to ensure they meet the required MDA and ensure sample results are available in a timely manner.

- Provide instructions to ARS International regarding retention samples taken resulting from a nuclear power plant incident.

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

SECTION 4: CONCLUSION

Based on the results of the drills, the offsite radiological emergency response plans and preparedness for the State of Louisiana and the affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency. Therefore, 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of Louisiana site-specific to River Bend Station will remain in effect.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 53-11-4c1-P-02		Criterion: 4c1	
<p>ISSUE: The Louisiana Department of Environmental Quality (LDEQ) has not pre-identified criterion for accident and post-accident sample analysis and provided that criterion to the ARS International contract laboratory.</p>			
<p>RECOMMENDATION: Modify the LDEQ contract or LDEQ procedures, as appropriate, to provide ARS International the information needed to provide analyses of sample media on a timely basis, of sufficient quality and sensitivity to support Louisiana’s protective action assessments and decisions. Gamma sample analysis libraries, sample count times and detection limits during accident conditions will be different than those utilized for routine environmental analysis. Make changes to the LDEQ contract or plans, as appropriate. For example:</p> <ul style="list-style-type: none"> • Review the ARS laboratory’s analysis library of isotopes to ensure they are analyzing for all nuclear power plant isotopes of concern, provide updates to the library, as needed. • Identify isotopes of concern to be reported to LDEQ, based on sample type (e.g. air samples (plume and post-plume), deposition (soil), milk, food stuffs and drinking water. • Identify the required Minimum Detectable Activity (MDA) for each isotope based on sample type and whether plume or post-plume samples (air samples). Specify the samples be counted just long enough to ensure they meet the required MDA and ensure sample results are available in a timely manner. • Provide instructions to ARS International regarding retention samples taken resulting from a nuclear power plant incident. 			
<p>CORRECTIVE ACTION DESCRIPTION:</p>			
CAPABILITY:		PRIMARY RESPONSIBLE AGENCY:	
CAPABILITY ELEMENT:		START DATE:	
AGENCY POC:		ESTIMATED COMPLETION DATE:	

APPENDIX B: DRILL EVALUATORS AND TEAM LEADERS

DATE: 2011-05-25, SITE: River Bend Station, LA

LOCATION	EVALUATOR	AGENCY
West Feliciana Ambulance	*Tim Pflieger	DHS/FEMA
West Feliciana Hospital	*Elsa Lopez	DHS/FEMA
American Radiation Services, International	*Marcy Campbell	ICF
* Team Leader		

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ARS	American Radiation Services
BZ	Buffer Zone
DSRR	Discrepant Sample Receipt Report
EMS	Emergency Medical Service
EPZ	Emergency Planning Zone
LIMS	Laboratory Information Management System
OSL	Optically Stimulated Luminescent
RBS	River Bend Station
REA	Radiation Emergency Area
RPT	Radiation Protection Technician
RSO	Radiation Safety Officer
WFPH	West Feliciana Parish Hospital

APPENDIX D: EXERCISE PLAN

American Radiation Services Laboratory Demonstration

May 25, 2011

Extent of Play

Participants

American Radiation Services
Louisiana Department of Environmental Quality

Revision 4
5/10/11

STATE OF LOUISIANA / AMERICAN RADIATION SERVICES
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Revision Log

Date	Revision	Description of Changes
3/30/11	0	Draft release
4/25/11	1	Initial release
4/26/11	2	Minor correction
5/2/11	3	Added milk, water, soil and vegetation samples
5/10/11	4	Updated narrative; added cue card numbers to sample data sheets; added reference to cue cards to Cue Card #2; adjusted GPS location of sample #2-A-001; changed air sample GPS to decimal degrees; revised survey readings on sample data sheets

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I. 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)

Location: American Radiation Services, Inc.

Extent of Play

Correction-on-the-spot will be considered at these locations at the discretion of and concurrence between the evaluator and the controller.

ARCAs: None

II. 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)

Location: American Radiation Services, Inc.

Extent of Play

The Louisiana Department of Environmental Quality's Sample Courier and samples will be pre-staged at the ARS location.

Correction-on-the-spot will be considered at these locations at the discretion of and concurrence between the evaluator and the controller.

ARCAs: None

III. EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSES

Sub-element 4.c – Laboratory Operations

Criterion 4.c.1: The laboratory is capable of performing required radiological analysis to support protective action decisions. (NUREG-0654, C.3; I.8, 9; J.11)

Location: American Radiation Services, Inc.

Extent of Play

Samples of air, water, soil, vegetation and milk will be provided to the laboratory via the Sample Courier. All radiological data will be simulated through controller messages.

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Laboratory analysis will be simulated. Staff will walk through the steps each sample would take to be safely analyzed and stored or disposed. The data and its reporting from the laboratory to LDEQ will also be discussed.

Correction-on-the-spot will be considered at these locations at the discretion of and concurrence between the evaluator and the controller.

ARCAs: None

IV. 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.

V. 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.

VI. NARRATIVE

On May 24, 2011, a General Emergency was declared at River Bend Station in St. Francisville, Louisiana. LDEQ Field Monitoring Teams were deployed to collect air samples from within the plume boundaries.

Field Monitoring Team #2 collected two air samples. These samples consist of both a silver zeolite cartridge and a filter. The team proceeded to count the cartridges and fill out the sample data sheet.

Note: Charcoal cartridges will be utilized for the demonstration and all sample analysis will be simulated.

The release was stopped at the utility and post plume/ingestion sample activities began. On May 25, 2011, Field Monitoring Team #2 also collected water, milk and vegetation samples.

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After filling out the appropriate sample data sheets and the Chain of Custody, the samples were delivered to the Sample Courier.

Following Chain of Custody procedures, the Sample Courier will deliver the samples to laboratory. ARS staff will process the samples, perform appropriate analysis, and return analysis data to LDEQ personnel.

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CONTROLLER MESSAGE

Cue Card: #1

Time: 0800

THIS IS A DRILL

Condition: Beginning of demonstration.

Anticipated Response: Sample Courier will relocate the pre-staged vehicle to a suitable position for transfer of samples.

The following data sheets will be included with the samples that have been prepared.

- Cue Card #2 – Air
- Cue Card #3 – Milk
- Cue Card #4 – Water
- Cue Card #5 – Vegetation
- Cue Card #6 – Soil

Sample Courier will begin transfer of samples to laboratory personnel.

Controller Message: Notify the Sample Courier that the demonstration has begun.

Provide the Chain of Custody for the six samples, Cue Card #7, to the Sample Courier.

THIS IS A DRILL

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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
Field Monitoring Team (FMT) Plume Phase Data Sheet – **AIR SAMPLES**

Cue Card: #2

FMT Number (circle): 1 (2) 3 4 Other: _____

Date: 5/24/2011 Time: 1440

Sample Name: 2-A-001

GPS Location: 30.770556, -91.318333

Air Flow Rate: 1.3 cfm Sample Duration: 7 minutes

Air Sampler Efficiency (see label): 98 %

Two-minute (2) Background Count: 3600

Five-minute (5) Sample Count: 125100

AREA SURVEY

Record readings midway through air sample

Ground Level: Open: 50 mR/hr Closed: 39 mR/hr

Waist Level: Open: 50 mR/hr Closed: 39 mR/hr

Data Transmitted To: John Deaux Date: 5/25/2011
Field Team Coordinator or Designee

Data Transmitted By: Jack Smith Time: 1335
Field Team Member

Date: 5/24/2011 Time: 1300

Sample Name: 2-A-002

GPS Location: 30.783333, -91.35

Air Flow Rate: 1.3 cfm Sample Duration: 7 minutes

Air Sampler Efficiency (see label): 98 %

Two-minute (2) Background Count: 3600

Five-minute (5) Sample Count: 89000

AREA SURVEY

Record readings midway through air sample

Ground Level: Open: 15 mR/hr Closed: 1 mR/hr

Waist Level: Open: 15 mR/hr Closed: 1 mR/hr

Data Transmitted To: John Deaux Date: 5/24/2011
Field Team Coordinator or Designee

Data Transmitted By: Jack Smith Time: 1335
Field Team Member

**All samples must be SEALED, SIGNED,
and ACCOMPANIED with a "Chain of Custody."**

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Cue Card: #3

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
Field Monitoring Team (FMT) Ingestion Phase Data Sheet – MILK SAMPLES

FMT Number (circle): 1 (2) 3 4 Other: _____

Date: 5/25/2011 Time: 0630

Sample Name: 2-M-003

GPS Location: 30.775911,-91.313381 Farm/Owner: John Boudreaux

AREA SURVEY

Ground Level: Open: 10 mR/hr Closed: 7 mR/hr

Waist Level: Open: 5 mR/hr Closed: 5 mR/hr

Sample Reading: 0.01 mR/hr (@ surface of the sample)

Data Transmitted To: John Deaux
Field Team Coordinator or Designee Date: 5/25/2011

Data Transmitted By: Jack Smith
Field Team Member Time: 0720

Date: _____ Time: _____

Sample Name: _____

GPS Location: _____ Farm/Owner: _____

AREA SURVEY

Ground Level: Open: _____ mR/hr Closed: _____ mR/hr

Waist Level: Open: _____ mR/hr Closed: _____ mR/hr

Sample Reading: _____ mR/hr (@ surface of the sample)

Data Transmitted To: _____
Field Team Coordinator or Designee Date: _____

Data Transmitted By: _____
Field Team Member Time: _____

All samples must be SEALED, SIGNED, and ACCOMPANIED with a "Chain of Custody."

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Cue Card: #4

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
Field Monitoring Team (FMT) Ingestion Phase Data Sheet – **WATER SAMPLES**

FMT Number (circle): 1 (2) 3 4 Other: _____

Date: 5/25/2011 Time: 0635

Sample Name: 2-W-004

GPS Location: 30.738774,-91.358807 Body of Water: Mississippi River

AREA SURVEY

Ground Level: Open: 0.5 mR/hr Closed: 0.5 mR/hr

Waist Level: Open: 0.5 mR/hr Closed: 0.5 mR/hr

Sample Reading: 0.01 mR/hr (@ surface of the sample)

Data Transmitted To: John Deaux
Field Team Coordinator or Designee Date: 5/25/2011

Data Transmitted By: Jack Smith
Field Team Member Time: 0720

Date: Time:

Sample Name:

GPS Location: Body of Water:

AREA SURVEY

Ground Level: Open: mR/hr Closed: mR/hr

Waist Level: Open: mR/hr Closed: mR/hr

Sample Reading: mR/hr (@ surface of the sample)

Data Transmitted To: Field Team Coordinator or Designee Date:

Data Transmitted By: Field Team Member Time:

All samples must be SEALED, SIGNED, and ACCOMPANIED with a "Chain of Custody."

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Cue Card: #5

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)

Field Monitoring Team (FMT) Ingestion Phase Data Sheet – **VEGETATION SAMPLES**

FMT Number (circle): 1 (2) 3 4 Other: _____

Date: 5/25/2011 Time: 0645

Sample Name: 2-V-005

GPS Location: 30.771671,-91.32087

AREA SURVEY

Ground Level: Open: 12 mR/hr Closed: 10 mR/hr

Waist Level: Open: 7 mR/hr Closed: 7 mR/hr

Sample Reading: 0.01 mR/hr (@ surface of the sample)

Data Transmitted To: John Deaux
Field Team Coordinator or Designee Date: 5/25/2011

Data Transmitted By: Jack Smith
Field Team Member Time: 0720

Date: Time:

Sample Name:

GPS Location:

AREA SURVEY

Ground Level: Open: mR/hr Closed: mR/hr

Waist Level: Open: mR/hr Closed: mR/hr

Sample Reading: mR/hr (@ surface of the sample)

Data Transmitted To: Field Team Coordinator or Designee Date:

Data Transmitted By: Field Team Member Time:

All samples must be SEALED, SIGNED, and ACCOMPANIED with a "Chain of Custody."

STATE OF LOUISIANA / AMERICAN RADIATION SERVICES

2011 EVALUATED EXERCISE - May 25, 2011

Cue Card: #6

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
Field Monitoring Team (FMT) Ingestion Phase Data Sheet – **SOIL SAMPLES**

FMT Number (circle): 1 (2) 3 4 Other: _____

Date: 5/25/2011 Time: 0715

Sample Name: 2-S-006

GPS Location: 30.773035,-91.319904

AREA SURVEY

Ground Level: Open: 12 mR/hr Closed: 10 mR/hr

Waist Level: Open: 7 mR/hr Closed: 7 mR/hr

Sample Reading: 1.0 mR/hr (@ surface of the sample)

Data Transmitted To: John Deaux
Field Team Coordinator or Designee Date: 5/25/2011

Data Transmitted By: Jack Smith
Field Team Member Time: 0720

Date: Time:

Sample Name:

GPS Location:

AREA SURVEY

Ground Level: Open: mR/hr Closed: mR/hr

Waist Level: Open: mR/hr Closed: mR/hr

Sample Reading: mR/hr (@ surface of the sample)

Data Transmitted To: Field Team Coordinator or Designee Date:

Data Transmitted By: Field Team Member Time:

All samples must be SEALED, SIGNED, and ACCOMPANIED with a "Chain of Custody."

STATE OF LOUISIANA / AMERICAN RADIATION SERVICES

2011 EVALUATED EXERCISE - May 25, 2011

Cue Card: #7

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)

SAMPLE CHAIN OF CUSTODY

FMT Number (circle): 1 (2) 3 4 Other: _____

Date: 5/25/2011 Time: 0730

Received by: _____
Sample Courier Name

Date: _____ Time: _____

Received by: _____
Laboratory Personnel Name

#	Sample #	Sample Type*	Notes**
1	2-A-001	A	includes air cartridge & filter
2	2-A-002	A	includes air cartridge & filter
3	2-M-003	M	milk
4	2-W-004	W	from MS River
5	2-V-005	V	unspecified crop
6	2-S-006	S	soil
7			
8			
9			
10			

* A - Air; M - Milk; S - Soil; V - Vegetation; W - Water

** Provide additional notes, if applicable. See procedure for examples.

All samples must be SEALED, SIGNED, and ACCOMPANIED with a "Chain of Custody."

DO NOT ACCEPT CUSTODY IF SAMPLE DATA SHEETS ARE NOT PROVIDED

RIVER BEND STATION
2011 MEDICAL EMERGENCY RESPONSE EVALUATED DRILL
EVALUATION AREAS AND EXTENT-OF-PLAY (EOP) AGREEMENT & ONSITE OBJECTIVES

RADIOLOGICAL EMERGENCY MEDICAL DRILL SCENARIO

FOR

RIVER BEND STATION

WEST FELICIANA PARISH HOSPITAL

AND

WEST FELICIANA PARISH EMS

RDRL-EP-11MS1DRIL

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I PURPOSE

This simulated radiation medical emergency is being conducted in order to exercise the emergency medical response at River Bend Station and the primary medical support facility, West Feliciana Parish Hospital and West Feliciana Parish EMS. The basic objective is to assess the ability of the plant staff to respond effectively to a radiation medical emergency within the plant and to test the ability of hospital and ambulance emergency service to handle contaminated and injured patients.

II PROPOSED SCHEDULE

DATE:	May 26, 2011
TIME:	7:30 AM (Start time of River Bend Station onsite portion of medical drill)
	~8:00 AM (Start time of ambulance arrival at River Bend)
LOCATIONS:	River Bend Station & West Feliciana Parish Hospital
INJURY/ILLNESS:	Fall victim conscious and bleeding

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III 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

West Feliciana Parish Hospital and West Feliciana Parish EMS

Extent of Play

In accordance with the scenario for this evaluation, the utility will provide the necessary dosimetry to the ambulance crew for the response to an onsite contaminated injured person. Upon entry to the site protected area, security will provide the “ambulance kit” to EMS personnel. Contents of the kit will include a dosimeter of legal record (DLR) and a 0-200 mR pocket dosimeter for each individual. The actual kit contents will not be issued as part of the drill. A drill controller will provide drill dosimetry to the medics after kit contents have been shown to the evaluator.

“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: West Feliciana Parish Hospital and West Feliciana Parish EMS

Extent of Play

The ambulance crew should be knowledgeable on how to acquire dosimetry kits and potassium iodide (KI) during a declared emergency involving parish response. The ambulance crew will discuss the method of obtaining dosimetry kits and KI from the ambulance when an emergency has been declared at the nuclear power plant. The discussion can be accomplished by interview with the evaluator.

Hospital personnel will be issued dosimeters and DLRs at the hospital. “Correction-on-the-spot” will be applicable for this demonstration.

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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: West Feliciana Parish Hospital and West Feliciana Parish EMS

Extent of Play

The ambulance will be pre-staged at the River Bend Station Training Center to allow for a search by plant security personnel prior to the start of the drill. Upon receiving a request for offsite assistance, the ambulance will proceed into the site protected area to a designated pickup point. Crew members will receive a turnover of patient information from site first aid and radiation protection personnel. Two radiation protection personnel will accompany the patient to the hospital.

At the hospital, removal of the patient's clothing will be simulated. Decontamination will be demonstrated to the evaluators using methods contained in the hospital procedure. These methods could include soap and water, wipes, or tape. Intrusive bioassay samples will be simulated. No actual surgical procedures, X-ray, drawing of blood samples, etc. will be conducted.

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

River Bend Station Objectives

See attached PERFORMANCE OBJECTIVES AND EVALUATION CRITERIA – RBS.

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.

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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.

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IV PERFORMANCE OBJECTIVES AND EVALUATION CRITERIA - RBS

	Program Elements	PERFORMANCE OBJECTIVES and General Evaluation Criteria	MED
B.8	Emergency Services Support Organizations	Demonstrate the ability to utilize onsite first aid / fire brigade personnel and to coordinate with required offsite emergency services (police, fire, ambulance, medical, hospital)	
	B.8.1	Appropriate points of contact were identified for the requested support.	
	B.8.2	Appropriate offsite emergency services (e.g., fire, ambulance, medical, hospital, law enforcement) were contacted	
	B.8.3	Security response was prompt in providing site access to the responding agency.	
	B.8.4	Fire brigade coordination and communications were appropriate (applicable to fire scenarios only).	N/A
	B.8.5	Medical and First Responder Team coordination and communications were appropriate (applicable to medical scenarios only).	
	B.8.6	RP support was contacted promptly for scenarios involving radiological controls.	
	B.8.7	Dosimetry was properly issued to incoming responders.	
F.5	Medical Support Communications	Demonstrate the ability to perform communications with both fixed and mobile medical support units.	
	F.5.1	The control room and RP/HP were promptly notified of the injury.	
	F.5.2	Communications between the control room and the first response team were timely and accurate.	
	F.5.3	The capability to request ambulance support through the WFP emergency dispatcher was demonstrated.	
	F.5.4	The capability to effectively communicate with the designated receiving hospital was demonstrated.	
L.1	Hospital Response	Demonstrate the radiological capabilities of local and backup hospitals. (Criteria demonstrated by alternating one hospital/year)	
	L.1.1	Appropriate in-house notifications were made, including medical and radiological conditions of the victim, and staff assignments to support the emergency.	
	L.1.2	Required protective clothing was properly donned.	
	L.1.3	The Radiological Emergency Area (REA) was properly set up.	

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	L.1.4	The REA staff/ambulance crew/RPTs performed a clean transfer of the victim, including documentation of radiological and medical conditions.	
	L.1.5	Ambulance and crew were properly monitored for contamination, and decontaminated if necessary, prior to being released.	
	L.1.6	Proper triage and medical treatment was performed.	
	L.1.7	The radiological condition of the victim and the dosimetry records of the REA staff were properly documented by the Buffer Zone Nurse.	
	L.1.8	Necessary samples from the victim were obtained and properly labeled.	
	L.1.9	Proper techniques were used to decontaminate victim without compromising their medical condition.	
	L.1.10	Proper contamination control practices were demonstrated in transferring decontaminated victim from the REA.	
	L.1.11	Proper exit procedures were demonstrated by hospital staff entering and leaving the REA.	
	L.1.12	The REA and hospital staff were properly monitored for contamination, and decontaminated if necessary, prior to being released. The REA and hospital staff were properly monitored for contamination, and decontaminated if necessary, prior to being released.	
L.2	First Aid	Demonstrate the ability to provide first aid treatment onsite.	
	L.2.1	First aid team was promptly dispatched after notification received in the CR.	
	L.2.2	Life-threatening medical conditions were addressed as a priority over contamination issues.	
	L.2.3	Team exposure was considered and not permitted to exceed pre-established values. Team exposure was considered and not permitted to exceed pre-established values.	
	L.2.4	Appropriate contamination controls and /or decontamination practices were employed.	
	L.2.5	Communications between the injury scene and control room were effectively maintained.	
	L.2.6	Team leader demonstrated effective command and control of the accident scene. Team leader demonstrated effective command and control of the accident scene.	
	L.2.7	Team personnel demonstrated proficiency in the use of protective and first aid equipment.	
	L.2.8	The condition and radiological status of the victim was properly documented.	
L.3	Contaminated Injured Transportation	Demonstrate the capability to transport a contaminated injured person offsite. (Criteria demonstrated by alternating one ambulance service/year)	
	L.3.1	Prompt access was gained by ambulance into the protected area.	
	L.3.2	Appropriate dosimetry and protective clothing were issued to ambulance personnel and clothing was donned appropriately.	

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	L.3.3	Ambulance personnel verified the medical condition of the victim and received report on injuries / status.	
	L.3.4	Ambulance personnel received turnover on radiological condition of the patient.	
	L.3.5	Contamination control methods were effectively utilized.	
	L.3.6	An RP tech with a survey meter accompanied patient off-site.	

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EXERCISE CONTROLLERS/EVALUATORS

Norman Tison	Control Room	2789
John Standridge	Plant site (Radiological response)	(225) 721-0887
Fred Hurst/Aaron Magee	Plant site (First Aid Team)/Ambulance	(225) 324-6020 / 505-3984
Gil Cosnett	West Feliciana Parish Hospital	1-856-261-5760

EXERCISE OBSERVERS

Cheryl Chubb	Hospital
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ONSITE PHONE NUMBERS

Shift Manager	2776 --OSM/Communicator Console 2789
RP	2771

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NARRATIVE SCENARIO

Approximate Time:

0730

Location:

65' Level, Radwaste Building

Description:

An individual investigating radiation alarms in the Radwaste Building near Phase Separator Tank TK-6B slips, and falls while climbing on maintenance scaffolding. During the fall, he hits a sharp object and is injured and contaminated with spilled resins and water. The individual will be found on the floor by a co-worker, conscious, and bleeding slightly from a leg wound. The co-worker will contact the control room for assistance.

Expected actions:

When contacted, the operations shift manager should implement the steps of ADM-0060, First Responder Emergencies. The First Responders should be contacted and radiation protection (RP) support requested.

The first aid team responding to the call should perform an assessment of the patient's condition and treat any life-threatening injuries. Based on the individual's condition and vital signs, the responding First Responders should make the decision to transport without decontamination. The control room should be contacted to arrange for ambulance and hospital support based on ADM-0060.

Radiation protection should monitor radiological exposures for both the responders and the patient. Contamination controls which do not impact care of the patient should be employed. Consideration should be given to the path the patient took from the original accident scene.

While awaiting ambulance arrival, the first aid team should perform the necessary actions to prepare the patient for transport. Assistance should be requested for patient transfer and the Primary Access Point (PAP) should be informed to prepare for ambulance arrival. RP should assist in planning the patient move to the ambulance pick up point.

Upon arrival of the ambulance, a turnover of patient medical and radiological conditions should be provided to the ambulance personnel. RP should arrange for two technicians to provide radiological coverage for the patient and medical personnel while in route and at the hospital.

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The onsite portion of the drill will be evaluated by Emergency Planning and Training department personnel. The individual will be transported to the hospital where FEMA will observe hospital activities in accordance with the stated objectives.

Pre-Staging:

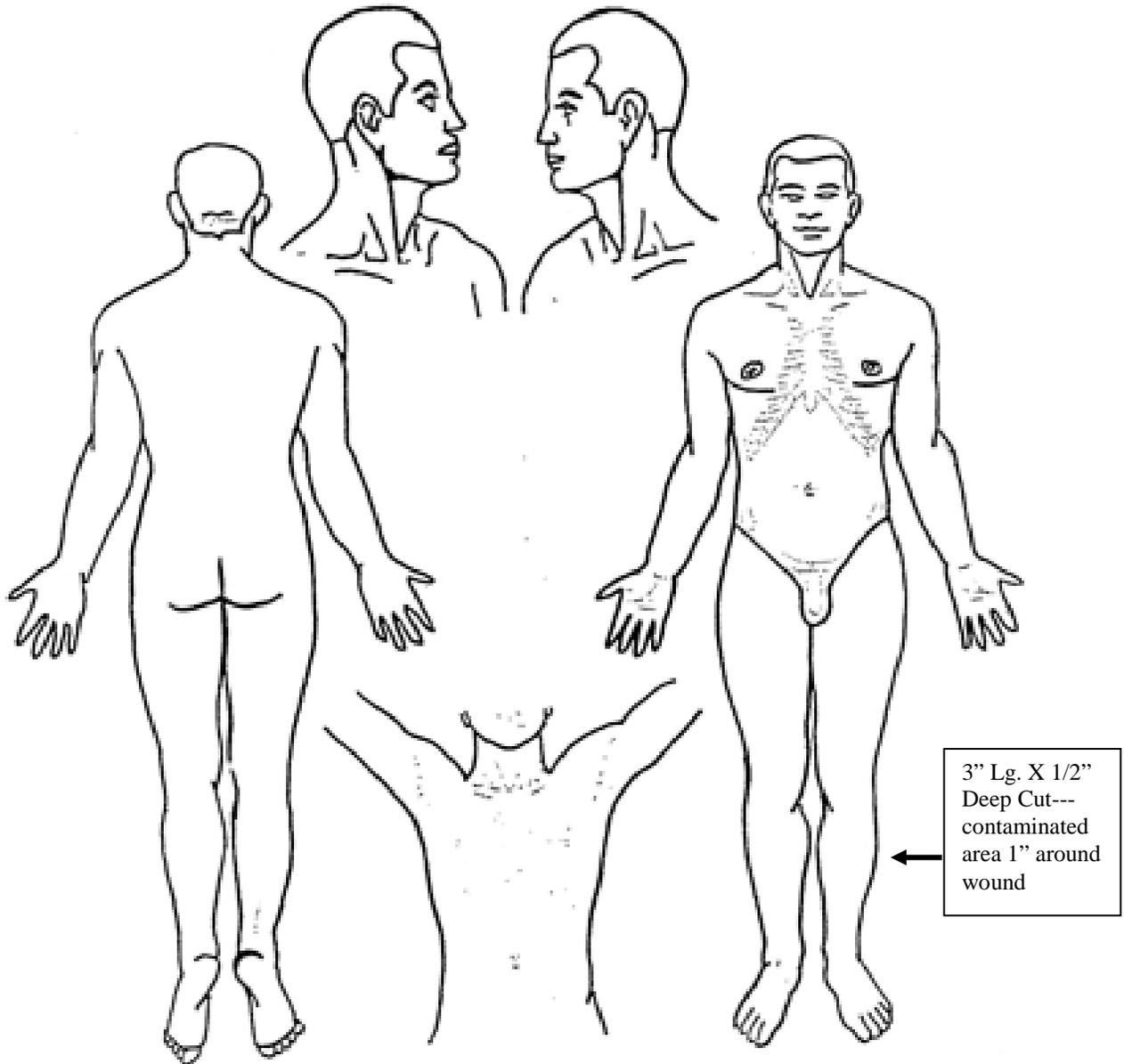
The ambulance will be pre-staged at the River Bend Station Training Center at 7:15 AM to allow for a search by plant security personnel. This search will be conducted to help expedite entry into the security area. Arrival time of the ambulance and patient at West Feliciana Parish Hospital is estimated to be approximately 8:45 AM.

Scenario Timeline

- 0800 Ambulance enters River Bend Station
- 0830 Ambulance departs site
- 0845 Ambulance arrives at West Feliciana Parish Hospital
- 1000 Drill Terminated

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ANATOMICAL DIAGRAM



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ATTENTION

THERE WILL BE AN ONSITE
MEDICAL DRILL TODAY

5/26/11

WEST FELICIANA PARISH EMS
WILL BE ONSITE

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