

# After Action Report/ Improvement Plan

South Texas Project  
Medical Services Drill

Exercise Date – March 8, 2018  
Radiological Emergency Preparedness (REP) Program



**FEMA**

*Published April 25, 2018*

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# After Action Report/Improvement Plan

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## EXECUTIVE SUMMARY

On March 8, 2018, an out-of-sequence medical drill was conducted for the South Texas Project (STP) located near Wadsworth, Matagorda County, Texas. Personnel from the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA),

Region VI, evaluated the drills. The purpose was to assess the level of preparedness of state and local responders to react to a simulated radiological emergency at STP.

Personnel from the Matagorda County Emergency Medical Services and Matagorda County Medical Center participated in the drill. Evaluation Areas demonstrated included: Emergency Operations Management, Protective Action Implementation, and Support Operations/Facilities.

Cooperation and teamwork of all the participants was evident during this drill, and DHS/FEMA wishes to acknowledge these efforts.

This report contains the final written evaluation of this out-of-sequence drill. The participants demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Level 1, one Level 2 (corrected on the spot), and no Plan Issues identified as a result of this drill.

## SECTION 1: EXERCISE OVERVIEW

### 1.1 Exercise Details

**Exercise Name**

Drill 2018-03-8

**Type of Exercise**

Drill

**Exercise Date**

March 8, 2018

**Program**

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

**Scenario Type**

Not Applicable

### 1.2 Exercise Planning Team Leadership

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### 1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the exercise:

**State Jurisdictions**

**Risk Jurisdictions**

Matagorda County

**Support Jurisdictions**

**Private Organizations**

Palacios Community Medical Center  
Matagorda County Emergency Medical Services

**Federal Organizations**

## SECTION 2: EXERCISE DESIGN SUMMARY

### **2.1 Exercise Purpose and Design**

The DHS/FEMA Region VI Office evaluated the medical services drill on March 8, 2018 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 the South Texas Project (STP). 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.

### **2.3 Scenario Summary**

The medical drill scenario was developed to evaluate the response of a contaminated injured patient requiring the transportation, treatment and decontamination of a radiological contaminated injured individual. The drill scenario provided for the evaluation of the Matagorda County Emergency Medical Services, Palacios Community Medical Center staff, Matagorda County Emergency Management, and Texas Department of State Health Services.



## SECTION 3: ANALYSIS OF CAPABILITIES

### 3.1 Exercise 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 March 8, 2018 drill to test the offsite emergency response capabilities of local governments in the 10-mile emergency planning zone (EPZ) surrounding the South Texas Project (STP).

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: Evaluation Methodology" (April 25, 2002). Detailed information on the exercise evaluation area criteria and the extent of play agreements used in this drill is included as an appendix to this report.

### 3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1, on the following page, presents the status of all exercise evaluation area criteria that were scheduled for demonstration during the 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 Level 1 or Level 2 findings and no unresolved ARCAs from prior exercises)

L1 – Level 1 Finding

L2 – Level 2 Finding

N - Not Demonstrated

P - Plan Issue

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Tables 3.1 - Summary of Exercise Evaluation

**Table 3.1a - Exercise Evaluation by Classification**

| Date: 3/8/2018<br>Site: South Texas Project |                                       |          |                |
|---|---------------------------------------|----------|----------------|
| Location                                    | Criteria Title                        | Criteria | Classification |
| Palacios Medical                            | Contaminated Injured Transport & Care | 6d1      | L2             |

| Date: 3/8/2018<br>Site: South Texas Project |                                       |              |
|---|---------------------------------------|--------------|
| Location                                    | Criteria Title                        | Criteria Met |
| Matagorda County EMS                        | Contaminated Injured Transport & Care | 6d1          |
| Matagorda County EMS                        | EW Exposure Control Implementation    | 3a1          |
| Matagorda County EMS                        | Equipment and Supplies                | 1e1          |
| Palacios Medical                            | EW Exposure Control Implementation    | 3a1          |
| Palacios Medical                            | Equipment and Supplies                | 1e1          |

### 3.3 Criteria Evaluation Summaries

#### 3.3.2 Risk Jurisdictions

##### 3.3.2.1 Matagorda County EMS

##### 3.3.2.2 Palacios Community Medical Center

In summary, the status of DHS/FEMA criteria for the Private jurisdiction is as follows:

- a. LEVEL 1 FINDINGS: NONE
- b. LEVEL 2 FINDINGS: LOCATION: Palacios Community Medical Center

ISSUE NO:

CRITERION: 6.d.1

CONDITION: Survey technique and establishment of background readings were not adequate. The Matagorda County Environmental Health and Safety (MCEHS) Representative was not sure how to read the survey meter to establish background. He also used improper survey technique by holding the probe in a manner that allowed his hand to come in contact with contaminated surfaces. Additionally, the survey technique was too fast for contamination to be properly identified. At the point of exit from the Radiation Emergency Area, the MCEHS Representative failed to monitor the shoe of the Nurse.

POSSIBLE CAUSE: The MCEHS Representative was not familiar with proper procedures to read the survey meter or to conduct proper contamination survey.

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REFERENCE: NUREG 0654/FEMA Rep K.5.a, L.1; Matagorda Regional Medical Center Radiological Emergency Plan

EFFECT: Potential for contamination to go unrecognized would allow for spread of contamination to other areas of the hospital and potential for additional radiological exposure.

RECOMMENDATION: Corrective Action Demonstrated: The controller provided additional training on reading survey meters and proper survey technique. The participant was able to correctly demonstrating how to read a survey meter and the proper way to conduct a survey. NONE

- c. PLAN ISSUES: NONE
- d. PRIOR ISSUES – RESOLVED: NONE
- e. PRIOR ISSUES – UNRESOLVED: NONE

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**SECTION 4: CONCLUSION**

Based on the results of the drill, the offsite radiological emergency response plans and preparedness for the State of Texas 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 Texas site-specific to South Texas Project will remain in effect.

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APPENDIX A: IMPROVEMENT PLAN

**No improvement plan added.**

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**APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS**

DATE: 3/8/2018

SITE: South Texas Project

| LOCATION                          | TEAM LEADER  | AGENCY         |
|-----------------------------------|--------------|----------------|
| Matagorda County EMS              | Brad DeKorte | FEMA Region VI |
| Palacios Community Medical Center | Nan Calhoun  | FEMA Region VI |

| LOCATION                          | EVALUATOR    | AGENCY         |
|-----------------------------------|--------------|----------------|
| Matagorda County EMS              | Brad DeKorte | FEMA Region VI |
| Palacios Community Medical Center | Elsa Lopez   | FEMA Region VI |
| Palacios Community Medical Center | Nan Calhoun  | FEMA Region VI |

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APPENDIX C: EXERCISE PLAN

**Exercise Evaluation Areas and Extent of Play Agreement**

**Matagorda County Emergency Medical Service  
And  
Palacios Community Medical Center**

**March 8, 2018**

*The Evaluation Areas applicable to this exercise are taken from the Federal Emergency Management Agency (FEMA) Evaluation Area Criterion for Medical Exercises. The extent of play follows the criterion in these documents. Any exception to the Evaluation Area is noted with the Evaluation Area and extent of play.*

*Successful demonstration of this exercise criterion will satisfy the requirements for the following HSEEP Core Capabilities as per the FEMA REP Program Manual dated July 2015, Part IV.H: Integration of REP Demonstration Criteria and Core Capabilities.*

**EVALUATION AREA 1.e.1 – EQUIPMENT, MAPS, DISPLAYS, MONITORING INSTRUMENTS, DOSIMETRY, POTASSIUM IODIDE (KI), AND OTHER SUPPLIES ARE SUFFICIENT TO SUPPORT EMERGENCY OPERATIONS. (NUREG-0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b)**

**CORE CAPABILITY: Environmental Response/Health and Safety**

**OBJECTIVE:** PCMC and MCEMS demonstrate that supplies, equipment, displays, and personal protective equipment are available for ensuring responder health and safety.

**OBJECTIVE:** Verify that instruments are operationally checked before use.

**OBJECTIVE:** Verify that instruments are calibrated in accordance with manufacturer's recommendations, and that there is a label indicating calibration on each instrument.

**OBJECTIVE:** Sufficient quantities of appropriate electronic personal dosimeters (EPDs) and permanent record dosimetry (PRDs) are available for issuance to all categories of emergency workers deployed by each facility.

**EXTENT OF PLAY**

Monitoring instruments and dosimetry will be the only items inspected under this Evaluation Area, sub-element criterion.

Correction on the spot is requested.

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**EVALUATION AREA 3.a.1 – IMPLEMENTATION OF EMERGENCY WORKER EXPOSURE CONTROL – OROS ISSUE APPROPRIATE DOSIMETRY, KI, AND PROCEDURES, AND MANAGE RADIOLOGICAL EXPOSURE TO EMERGENCY WORKERS IN ACCORDANCE WITH THE PLANS/PROCEDURES. (NUREG-0654/FEMA-REP-1, J.10.e; K.3.a, b; K.4)**

**CORE CAPABILITY: Operational Coordination**

**OBJECTIVE:** PCMC and MCEMS will issue appropriate dosimetry and procedures and manage radiological exposure.

**CORE CAPABILITY: Environmental Response/Health and Safety**

**OBJECTIVE:** Emergency workers will periodically and at the end of each mission read their dosimetry and record the readings on the appropriate exposure record or chart.

**EXTENT OF PLAY**

Correction on the spot is permitted with issues related to dosimetry use, reading dosimetry, alarm set points and record keeping. Administration and record-keeping of Potassium Iodide (KI) will not be demonstrated at this exercise. Correction on the spot is requested.

**EVALUATION AREA 6.d.1 – TRANSPORTATION AND TREATMENT OF CONTAMINATED INJURED INDIVIDUALS (NUREG-0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)**

**CORE CAPABILITY: Public Health, Health Care, and Emergency Medical Services**

**OBJECTIVE:** PCMC and MCEMS demonstrate that they have adequate space, resources, and trained personnel to provide transport and medical services to contaminated, injured individuals.

**CORE CAPABILITY: Screening, Search and Detection**

**OBJECTIVE:** PCMC and MCEMS demonstrate that they can provide monitoring and decontamination to contaminated, injured individuals.

**EXTENT OF PLAY**

The patient will be staged at the Palacios Reception Center until the ambulance arrives.



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Monitoring and decontamination of the Radiation Emergency Area in order to place the room back into full service will be demonstrated through interview.

Correction on the spot is permitted with issues related to the adequacy of vehicles, equipment, and procedures, decontamination techniques, cross contamination issues for personnel transporting and treating contaminated injured or exposed individuals. Correction on the spot is requested.

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