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Attn: Document Control Desk
Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Louisiana Energy Services, LLC
NRC Docket No. 70-3103

Subject: URENCO USA Emergency Preparedness Procedure Update for
Controlled Document Set for the NRC Operations Center

Louisiana Energy Services, LLC dba URENCO USA (UUSA) herewith submits the Emergency Preparedness procedures update for (EP-3-0200-04, Revision 6) to be maintained in the NRC's Region 2 Operations Center as Controlled Set number CS-631.

The Enclosure contains information concerning UUSA's Emergency Preparedness program. Should there be any questions regarding this submittal, please contact Salem Thyne, Licensing and Performance Assessment Manager, at 575-394-5252.

Respectfully,

A handwritten signature in dark ink, reading "Jay Laughlin". The signature is written in a cursive, flowing style. It is positioned above the printed name and title of the signatory.

Jay Laughlin
Chief Nuclear Officer and Head of Operations

Enclosure: EP-3-0200-04 Revision 6, Environmental Monitoring and Sampling

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Enclosure 1

EP-3-0200-04 Revision 6, Environmental Monitoring and Sampling

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EP-3-0200-04	UPDATE	N/A	6.0	July 7, 2016 12:00:00 AM MDT	1	Jul 7, 2016
Index of Current Documents						

Document Number	Title	Reason for Issue	ECR	# of Copies	Rev	Rev Date
Emergency Plan	Emergency Plan			1	24.0	May 11, 2016 12:00:00 AM MDT
EP-3-0200-01	Classification of Emergency Events	N/A		1	7.0	November 25, 2015 12:00:00 AM MST
EP-3-0200-02	Emergency Notification	N/A		1	19.0	May 6, 2015 12:00:00 AM MDT
EP-3-0200-04	Environmental Monitoring and Sampling	N/A		1	6.0	July 7, 2016 12:00:00 AM MDT
EP-3-0200-06	Assembly and Personnel Accountability	N/A		1	8.0	May 5, 2015 12:00:00 AM MDT
EP-3-0200-07	Recovery and Termination	N/A		1	3.0	April 18, 2013 12:00:00 AM MDT
EP-3-0200-10	Criticality Emergency Response	N/A		1	3.0	September 24, 2015 12:00:00 AM MDT
EP-3-0200-11	Emergency Operations Center Operations	N/A		1	5.0	September 24, 2015 12:00:00 AM MDT

Set ID No.

631

Environmental Monitoring and Sampling

EP-3-0200-04

Revision 6

Level 2 - Reference Use

Health, Safety & Emergency Preparedness Manager

Effective Date	07/07/2016
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Environmental Monitoring and Sampling

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Revision Summary

Change	Reason for Change
Editorial Change	Update EP Manager to HS&EP Manager
Editorial Change	Removed reference to RP-3-4000-07 as it has been deleted

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1. PURPOSE

- 1.1 To provide instructions for assembly, control, and dispatch of off-scene environmental monitoring and sampling following a release of radioactive and/or hazardous substances. (7.1, 7.2, 7.3)

2. SCOPE

- 2.1 This procedure applies to personnel performing emergency monitoring activities during emergency events requiring the Emergency Operations Center (EOC) activation. Environmental monitoring and sampling may continue after event TERMINATION, or into RECOVERY PHASE, in accordance with the normal Environmental Compliance procedures.
- 2.2 Monitoring and surveying of areas offsite should be coordinated with the New Mexico Department of Homeland Security and Emergency Management and the Texas State Operations Center.

3. TERMS, DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

- 3.1 Environmental Monitoring Team – Personnel qualified to monitor for radioactivity or hazardous material during emergencies requiring EOC activation. Environmental Monitoring Team personnel respond to the EOC and are then selected according to area of expertise to perform monitoring activities as part of a Field Monitoring Team or as an On-Scene Monitor.
- 3.1.1 Field Monitoring Team (FMT) - Emergency monitors dispatched to locations off-scene to monitor air; take direct measurements; and take samples of soil, vegetation, water, and air as directed. FMTs will not be dispatched to the incident scene established by the Fire Brigade Leader/Incident Commander. FMTs remain under the control and direction of the EOC organization.
- 3.1.2 On-Scene Monitors - Emergency monitors dispatched to augment on-scene radiological and environmental monitoring activities performed by the Fire Brigade Team/on-scene emergency responders. After dispatch from the EOC, On-Scene Monitors are under the control and direction of the Fire Brigade Leader/Incident Commander.

4. RESPONSIBILITIES

4.1 Field Monitoring Team Personnel

- 4.1.1 Confirm availability and operability of emergency monitoring equipment (i.e., check calibration date, battery check, etc.) before team dispatch.
- 4.1.2 Perform monitoring and survey activities as directed by the Field Team Coordinator (FTC).
- 4.1.3 Maintain communications with FTC.
- 4.1.4 Complete field monitoring documentation.
- 4.1.5 Package and identify samples.

4.2 Field Team Coordinator (FTC)

- 4.2.1 Reports to HS&E Coordinator.
- 4.2.2 Selects and dispatches on scene monitors, as required.
- 4.2.3 Provides FMTs with information on release and meteorological conditions.
- 4.2.4 Maintains communication with FMTs.
- 4.2.5 Tracks locations of FMTs.
- 4.2.6 Reports monitoring/survey location, time, and results to the HS&E Coordinator as soon as data is received from FMTs.
- 4.2.7 Ensures field monitoring results are properly documented by FMTs.

4.3 Health, Safety & Environment Coordinator

- 4.3.1 The Health, Safety & Environment Coordinator is responsible to the Emergency Director for environmental monitoring and sampling activities.

4.4 On-scene Monitors

- 4.4.1 Augment on-scene radiological and environmental monitoring activities performed by the Fire Brigade Team under the overall direction of the Fire Brigade Leader/Incident Commander.

5. MAIN BODY

5.1 Activation of the Environmental Monitoring Team

- 5.1.1 Upon notification of Emergency Operations Center (EOC) activation, Environmental monitoring team personnel report to field-monitoring assembly area located in the EOC conference room.
- 5.1.2 WHEN the EOC is operational, THEN the HS&E Coordinator is responsible for making recommendations to the Emergency Director for protective action decision-making and assumes responsibility for field monitoring activities.
- 5.1.3 Environmental Monitoring Team members perform the following:
 - a. Confirm availability and operability (i.e., calibration date, battery check, instrument responds when turned on, etc.) of dedicated environmental monitoring equipment in the EOC (FMT equipment room).
 - b. Confirm availability of vehicles to be used by FMT teams and report status of vehicles to FTC.
 - c. Obtain PPE, bagging material, and electronic alarming dosimeter (EAD) as determined necessary by the HS&E Coordinator or FTC.
 - d. Notify FTC of any equipment deficiencies.

5.1.4 FTC performs the following:

- a. Initiates position log, documenting major decisions and communications and recording time for each entry.
- b. Prepares FTC work area for FMT activities.
- c. Ensures transportation is available for FMTs.
- d. Notifies HS&E Coordinator of any vacancies in environmental monitoring staffing or equipment deficiencies.
- e. Obtains briefing from HS&E Coordinator on event status and emergency information pertaining to environmental monitoring activities.
- f. Determines off scene sampling strategies for FMTs based on objectives from HS&E Coordinator.

5.2 On-Scene Monitoring Support

- 5.2.1 IF On-Scene Monitors are required at incident scene, THEN the HS&E Coordinator directs FTC to dispatch necessary emergency monitors to scene.
- 5.2.2 FTC performs the following:
 - a. Identifies On-Scene Monitor(s) to be deployed to the scene.
 - b. Briefs On-scene Monitor(s) on assignment, including location of Command Post.
 - c. Ensures On-Scene Monitor(s) have communications, i.e., cellular telephone.
- 5.2.3 FTC dispatches On-Scene Monitors to support the Fire Brigade Leader and on-scene responders.
- 5.2.4 On-Scene Monitors report to Fire Brigade Leader/Incident Commander or designee at scene.
- 5.2.5 FTC briefs the HS&E Coordinator on remaining resources and personnel available for field monitoring activities.

5.3 Off-Scene Field Monitoring Team Dispatch

- 5.3.1 IF off-scene field monitoring is determined to be necessary, THEN the HS&E Coordinator directs FTC to prepare to dispatch FMTs.
- 5.3.2 FTC performs the following:
 - a. Determines monitoring and survey locations for FMTs.
 - b. Determines FMT team assignments.

- c. Consults with HS&E Coordinator and Off-site Dose Calculation Specialist, using plant/site maps, to determine FMT travel routes considering items such as the following:
 - 1) Road accessibility
 - 2) Weather conditions
 - 3) Plume location
- d. Assigns a sequential number, beginning with number 1, to EP-3-0200-04-F-1, Field Monitoring Team Briefing Form.
- e. Completes Section A of EP-3-0200-04-F-1 and submits to the HS&E Coordinator for review and approval.

5.3.3 The HS&E Coordinator reviews completed Section A of EP-3-0200-04-F-1 and:

- a. Approves form and provides back to the FTC, or
- b. Provides/recommends changes and provides back to FTC.

5.3.4 Before FMT dispatch, the FTC performs the following:

- a. Briefs the FMTs using Section A of EP-3-0200-04-F-1.
 - 1) Provides copy of approved EP-3-0200-04-F-1 with map to the FMT
 - 2) Retains original approved briefing form and map.
- b. Completes Section B of EP-3-0200-04-F-1 and performs the following:
 - 1) Performs communications (radio and telephone/cell phone) checks with FMTs. (Confirm phone numbers for the FTC and HS&E Coordinator are stored in FMT cell phones. Confirm that the FTC and the HS&E Coordinator have FMT cell phone numbers.)
 - 2) Ensure FMT team(s) have vehicle available/assigned.
 - 3) Synchronizes time with FMTs.
- c. When equipment and FMT members are available for dispatch, notifies the HS&E Coordinator.
- d. IF confirmation the release is stopped has been received, THEN FTC performs the following prior dispatching FMTs:
 - 1) Confirms FMTs have proper equipment.
 - 2) Establishes and maintains communications with FMTs.
 - 3) Directs FMTs to monitor locations both inside and outside of plume pathways as indicated by the HS&E Coordinator.
- e. IF confirmation the release is stopped has not been received, THEN FTC performs the following prior dispatching FMTs:
 - 1) Confirms FMTs have proper equipment.

- 2) Establishes and maintains communications with FMTs.
- 3) Directs FMTs to monitor locations outside and upwind of plume pathways as indicated by the HS&E Coordinator.

5.3.5 FMTs proceed to monitoring locations using routes identified by the FTC.

5.4 Field Monitoring Activities

5.4.1 FMT personnel perform the following:

- a. Ensure instructions from FTC are followed.
- b. Maintain communications with FTC.

WARNING:

Entry into the hazardous material plume could result in contamination, injury, or death.

- c. Do not enter hazardous material plume.
- d. Immediately report monitoring/survey results to FTC.
- e. When a new monitoring/survey location is reached, inform FTC.
- f. Immediately report any problems (example: equipment malfunction) to FTC.
- g. Do not discuss details of the emergency with the general public or news media.

5.4.2 IF positive indication of hydrogen fluoride (HF) is obtained (example: positive air sample, sight, or smell), THEN the FMTs perform the following:

- a. Immediately exit area using predetermined escape route.
- b. Notify FTC of positive air sample.
- c. Perform body frisk for radiological contamination.
- d. Report frisking results to FTC.
- e. Request further direction from FTC.

5.4.3 IF the FMT body frisk indicates presence of radiological contamination, THEN the FTC performs the following:

- a. Immediately reports personnel contamination, including contamination levels, to the HS&E Coordinator.
- b. Requests the HS&E Coordinator to designate location and route on which to send contaminated FMT members for decontamination.

- c. Directs contaminated FMT members to proceed using designated route to decontamination location designated by the HS&E Coordinator.
- d. Records personnel contamination in FTC logbook.

5.4.4 FTC performs the following:

- a. Tracks location of FMTs.
- b. Records monitoring/survey results on map and on the position log.
- c. Consults with the HS&E Coordinator to determine any additional monitoring/ survey locations, travel routes, and precautions.
- d. Informs the FMTs of next survey location, travel route, precautions, and samples to be taken.
- e. WHEN confirmation is received that the release has stopped, THEN the FTC directs FMTs to monitor locations in the plume pathway.

WARNING:

Failure to keep FMTs informed of changing event conditions could result in FMTs being exposed to hazardous material plume.

- f. Notifies FMTs of any changes to the following:
 - 1) Releases
 - 2) Wind direction
 - 3) Monitoring/sampling points
 - 4) Traveling routes

5.4.5 FMTs perform the following:

- a. IF radio and cell phone communications with FTC fail, THEN immediately return to EOC, if possible traveling by original route of dispatch.
- b. Stay advised of incident and take action to prevent entering plume.
- c. Define outer limit of detectability of hazardous material involved.
- d. Proceed in vehicle to area adjacent to designated monitoring location, following route approved by FTC.
- e. Report position to FTC.
- f. WHEN directed by FTC, THEN perform monitoring/surveys as defined. (Ensure monitoring/survey number and desired monitoring location is provided by the FTC.)
- g. Record monitoring/survey data for each sample on EP-3-0200-04-F-2, Field Monitoring Sample Form.

- h. Containerize and label samples as directed by the FTC, as applicable.
- i. Report instrument readings and descriptions of samples obtained to the FTC.
- j. Proceed to next monitoring/survey location as instructed by the FTC.

5.4.6 FTC records instrument readings and descriptions of monitoring/surveys obtained from FMTs on map and on log.

5.5 Survey Completion

- 5.5.1 Upon completing survey and leaving affected area, FMTs perform the following operational check for each instrument used:
- a. Check background reading.
 - b. Check detector response to check source.
 - 1) IF the check source response is outside the established limits, THEN remove unit from service until the problem can be identified.
 - 2) Inform HS&E Coordinator of instrument malfunction.
 - c. Document the performance of instrument operational checks per the appropriate RP forms, as necessary.
- 5.5.2 FMTs return to previously established contamination control point and survey all personnel, equipment, and vehicle for contamination as directed by the FTC or HS&E Coordinator in accordance with appropriate RP procedures.
- 5.5.3 IF contamination is found, THEN FMTs decontaminate prior to release as directed by the FTC and/or HS&E Coordinator using appropriate procedures specified by the FTC and/or HS&E Coordinator.

5.6 Monitoring for Criticality Events

- 5.6.1 IF emergency is a criticality event, THEN FMTs perform the following:
- a. Obtain electronic alarming dosimeter.
 - b. Proceed to survey area/location as directed by FTC.
 - c. Conduct direct radiation surveys as directed by the FTC.
 - d. Record survey data.
- Report survey readings to FTC.

5.7 Termination of Field Monitoring Activities

NOTE:

Once initiated, field monitoring activities are normally conducted until the emergency event is terminated. After termination of emergency, any field monitoring performed is part of the recovery phase.

- 5.7.1 WHEN field monitoring is no longer required or is not required for the existing emergency, THEN the HS&E Coordinator may terminate the function with concurrence of the Emergency Director.
- 5.7.2 FTC performs the following:
- a. Assists HS&E Coordinator in recovery planning.
 - b. Briefs FMT personnel on event termination and plans for recovery operations.
 - c. Provides event documentation (example: logbook, FMT event documentation, EP-3-0200-04-F-1 and EP-3-0200-04-F-2 forms) to the HS&E Coordinator.
 - d. Debrief monitoring personnel.
 - e. WHEN directed by the HS&E Coordinator, THEN deactivate FMT activities AND return area to pre-emergency condition.

6. DOCUMENTATION AND RECORDS

- 6.1 Maintain record of emergency-related activities per RM-3-2000-01, Records Management Program.
- 6.2 Retain copies of position log for post-event analysis.

7. LICENSE COMMITMENTS AND REQUIREMENTS

- 7.1 Emergency Plan, Section 7.1, Written Emergency Procedures
- 7.2 Emergency Plan, Section 9.1, General Aspects (Recovery and Plant Restoration)
- 7.3 Emergency Plan, Section 9.2, Recovery Staffing

8. REFERENCES

- 8.1 Use References
- 8.1.1 RM-3-2000-01, Records Management Program
- 8.2 Source References
- 8.2.1 Emergency Plan

Procedure Title: Environmental Monitoring and Sampling

EP-3-0200-04-F-1

**Field Monitoring Team Briefing Form
(Pages 12 to 13)**

EP-3-0200-04

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Briefing Form Number: _____

Section A (To be completed by HS&E Coordinator or designee)

Material Released: _____

Type of Release (example: gaseous/airborne, solid, liquid): _____

Location of Release: _____

Release Quantity (if known): _____

Anticipated Plume Path (Attach copy of projected plume model)

Release Hazards

Meteorological Information

Wind Speed: _____ mph

Wind Direction – from: _____

Temperature: _____ °F

Sampling and Monitoring Instructions

Type of Sampling/Monitoring Activity (List any PPE, bags, or other sample/monitoring material as necessary):

Locations and Routes to Survey/Monitoring Locations (Attach copy of map)

Escape routes:

Required Equipment:

Instrument/Equipment	Serial Number	Calibration Date	Operability Check (✓)

Approved: _____

Health, Safety, & Environment Coordinator

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EP-3-0200-04-F-1 Field Monitoring Team Briefing Form (Pages 12 to 13)	EP-3-0200-04 Rev. 6 Level 2 - Reference Use Page 13 of 14

Section B (To be completed by HS&E Coordinator or designee)

Special Safety Instructions:

Predetermined Area Escape Route (See attached map)

Communications

Cell Phone Number(s)/Operational Check: _____
Radio Channel/Talk Group: _____
Radio Operability Verification Check: _____

Vehicle Assignments

Time Synchronized: _____

Field Monitoring Team

Team Number: _____

Team Members: _____

Field Monitoring Team Briefing

Conducted By: _____

Time/Date: _____

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