U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
JCC Environmental - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #10**
Radiological Assessment and Hazard Categorization
JCC Environmental

Picayune, MS
Latitude: 30.4802957 Longitude: -89.6934641

To:
From: Matthew Huyser, On Scene Coordinator
Date: 8/19/2016
Reporting Period: 6/20/2016 - 8/10/2016

1. Introduction

1.1 Background

Site Number:	B48J	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	5/19/2016
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	5/19/2016	**Start Date:**	5/20/2016
Demob Date:		**Completion Date:**	
CERCLIS ID:	MSN000404848	**RCRIS ID:**	
ERNS No.:		**State Notification:**	5/10/2016
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response.

1.1.2 Site Description

Former used oil and waste recycling facility.

1.1.2.1 Location

137 J J Holcomb Rd, Picayune (Nicholson), Pearl River County, Mississippi

1.1.2.2 Description of Threat

Site is comprised of used oil and other oil materials stored in totes and drums which are leaking in an unsecured building and migrating to the ground outside. Spilled elemental mercury has been found scattered in an open and unsecured area. Abandoned aboveground storage tanks containing waste oil are located in a secondary containment area which has filled with rainwater, the freeboard is undetermined. The secondary containment areas contain oil saturated sorbents and there is a sheen on the trapped water. There are residences within 50-100 feet outside the fence line on three sides of the facility. A small creek flows on the southern border of the facility and a stream on the northern border. Access to the property, its buildings, and their contents is unsecured.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Mississippi Department of Environmental Quality (MDEQ) requested that EPA Emergency Response, Removal and Prevention Branch (ERRPB) conduct a removal site evaluation (RSE) at the JCC Environmental Site. The business filed bankruptcy in 2013 and was subsequently abandoned. EPA OSC Huyser met with MDEQ and one of the former JCC Environmental partners on May 17, 2016, to walk through and inspect the facility. Approximately 150 drums and 100 totes were found, most of which were full or at least partially filled and some of which were leaking. Contents of the full containers mostly appeared to be oil. Buckets marked corrosive and universal waste were found, some of which reportedly contained liquid elemental mercury waste. The former partner indicated that vandals may have broken instruments

containing mercury on the floor of one building.

There are three buildings located at the Site. The north building is closed and contains only a few drums, totes, and buckets. The west building is open and contains a majority of the drums and totes. The south building is office space. There are two above-ground storage tanks (ASTs) at the site with capacities in excess of 10,000-gallons each. Thermal imaging suggests that one tank is approximately 20% full while the other has a liquid level of only 12 inches. The tanks are within a shallow secondary containment area that is filled with rainwater and has a sheen on the surface. There are drums and totes within the secondary containment area as well.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

RADIOACTIVE MATERIALS ASSESSMENT

OSC Huyser returned to the Site with START and EPA Environmental Response Team on June 21 and June 22 to assess and decontaminate one room in the North Building which was found to contain radiological materials. Entries were made in level C PPE with dry decontamination. Air sampling was conducted inside the room, outside the room, and outside the building.

A total of fifteen containers were found which contained or were believed to be contaminated with radioactive source materials; most containers were glass jars of approximately 250mL in size. Six containers were labeled as Thorium Nitrate, two containers were labeled as Thorium Oxide, and seven containers were illegible or unlabeled. The containers were packed with vermiculite in 5-gal buckets. Debris from the contaminated room was packed in three trash bags. Screening of the room surfaces as well as floors and containers throughout the building was completed with alpha particle detection equipment based on the prevalence of Thorium found. Screening throughout the north and west buildings was additionally conducted with gamma detection equipment. No other radioactive materials or contamination was identified at the Site.

Spilled liquid from one of the Thorium Nitrate jars was found in the concrete of the room over a small area of several square feet. Recommended remediation procedure was to use a concrete scabbler to remove the surface of the concrete with low dust generation and vacuum with a shop vac equipped with a HEPA filter. No concrete scabbler could be found. An electric demolition hammer with a wide flat head was used to scabble the surface of the concrete at incremental depths of 1/8 inch; concurrently a vacuum with a HEPA filter was used to remove disturbed material and dust from the impact area. Approximately nine square feet of concrete was cleared at a depth of 1/8" with one area approximately 0.5 square feet excavated to a depth of 3/4 inches. The floor was screened and found to be successfully decontaminated. Vacuum filters were discarded in a fourth trash bag. All overpacked and bagged radioactive waste was staged back in the room at the corner of the north building.

OSC Huyser returned on August 10 with MSDEQ to collect activity and isotope data from the containers and trash bags which was requested in order to solicit bids for disposal. Gamma dose rates from the containers ranged from 120 µR/hr to 1550 µR/hr at a distance of 1 inch but consistently descended by an order of magnitude at 12 inches. Three containers presented no significant dose above background when measured. Thorium-232 was identified near or above 80% confidence in 13 of the 15 containers with no match found in the other two. Count rates were measured for each container and trash bag as well. The data was recorded and submitted with solicitations for waste disposal bids.

HAZARD CATEGORIZATION AND SAMPLING

OSC Huyser and Kemron returned to the Site from June 27 to July 1 to complete hazard categorization and sampling of waste materials. Approximately 120 samples required hazard categorization analysis and several drums had to be re-sampled to obtain sufficient material volume for laboratory analysis. OSC Huyser also generated an inventory map to document the location of each numbered container.

Samples from drums and totes were bulked, according to waste stream, in groups generally not exceeding twenty units. 21 samples were sent off-site for laboratory waste characterization analysis, representing 15 potential waste streams.

2.1.2 Response Actions to Date

- All wastes in the north and west buildings have been stabilized
- >370 haz cat samples have been completed
- An estimated 38 lbs of elemental mercury have been shipped for disposal
- Elemental mercury wastes has been shipped off for transportation and disposal
- Activities in the west building are nearly complete
- Cleared debris from north building
- Cleaned sumps in north building
- Staged drums in north building
- Delineated extent of spilled mercury contamination
- Completed cataloging containers & sampling containers onsite
- Completed cataloging containers & sampling containers in west building
- Cleared debris from west building
- Completed staging catalogued and sampled drums and totes in west building
- Completed removal of wastewater from secondary containment area
- Completed pumping, removal and staging of wastes in the tank farm
- Completed decontaminating mercury-contaminated area
- Completed removal and decontamination of mercury-contaminated drums

- Completed hazard categorization
- Completed sludge removal from secondary containment area
- Completed removing piping from tank farm
- Completed characterization and decontamination of radiological waste materials
- Completed sampling for waste disposal analysis

2.1.2.1 Current Container Count

Location	***Count (=>5 gal)***	***Complete?***
North Building	71	Yes
West Building	320	Yes
Tank Farm *(moved to north building)*	38	Yes
Outside *(moved to north or west building)*	153	Yes

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
The former partner declared that there were no available funds associated with the business to conduct the response and there were no other fund sources to undertake the action. Written access to conduct the response was not granted until May 18.

2.1.4 Progress Metrics

Waste Stream	***Medium***	***Quantity***	***Manifest #***	***Treatment***	***Disposal***
Petroleum Contact Water	Secondary Containment Area	5025 gal	1605647-01	Liquid Environmental Solutions	Treatment
Petroleum Contact Water	Secondary Containment Area	4735 gal	1605647-02	Liquid Environmental Solutions	Treatment
Mercury	Elemental	38 lbs est	007664748 FLE	Overpack	Reclamation

2.2 Planning Section

2.2.1 Anticipated Activities

Waste materials at the site have been segregated and secured to the extent practicable. Preparations are being made to dispose of waste materials to prevent future spills or exposure to residents in the surrounding neighborhood.

2.2.1.1 Planned Response Activities

- Screen working areas to delineate potential mercury contamination; (COMPLETE)
- Catalog and document all containers throughout the Site and stage in a secure location to await disposal; (COMPLETE)
- Overpack or repackage materials from leaking containers; (COMPLETE)
- Sample waste materials for hazard categorization and profiling for treatment and/or disposal; (COMPLETE)
- Remove free liquids and wastes from secondary containment area; (COMPLETE)
- Remove liquids and sludges from above-ground storage tanks and decontaminate, if necessary; (COMPLETE)
- Excavate stained soils resulting from previous on-site spills (COMPLETE);
- Perform additional surface and soil screening for additional contaminant hazards, if necessary;
- Perform air monitoring for on-site health and safety; (COMPLETE)
- Treat and/or dispose of waste materials from the Site. (ONGOING)

2.2.1.2 Next Steps

A ceiling action memorandum briefing is scheduled for August 31 to request additional funds for disposal of hazardous substances and waste materials at the Site which pose a threat of release.

2.2.2 Issues

When OSC Huyser arrived at the Site on June 21, both doors of the West Building were found unlocked and one had been left open by 3 feet from the ground. Piping that had been removed from the tank farm and cleaned had been stolen. Theft of the piping was reported to the Pearl River County Sheriffs Department (report no. 5016010863)

When OSC Huyser arrived at the Site on August 10, bags of general trash which had been staged outside the North Building had been cut open and the plastic sheeting covering the bags had been removed.

2.3 Logistics Section

No information to report in this section.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Emergency Response, Removal and Prevention Branch (ERRPB) Safety Officer OSC Englert visited the Site on June 21 and provided verbal evaluation and recommendations.

2.5.2 Liaison Officer

No additional information to report in this section at this time.

2.5.3 Information Officer

No information to report in this section at this time.

3. Participating Entities

3.1 Unified Command

No information to report in this section at this time.

3.2 Cooperating Agencies

MDEQ

4. Personnel On Site

There are no personnel currently at the Site.

5. Definition of Terms

No information to report in this section at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

No information to report in this section at this time.

6.2 Reporting Schedule

No information to report in this section at this time.

7. Situational Reference Materials

None.