

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Tupelo Ricin Site - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #2
Final Polrep
Tupelo Ricin Site
B41T
Tupelo, MS
Latitude: 34.2576066 Longitude: -88.7033859

To:
From: Steve Spurlin, OSC
Date: 8/27/2013
Reporting Period: May 30, 2013 - June 24, 2013

1. Introduction

1.1 Background

Site Number:	B41T	Contract Number:	EP-S4-07-03
D.O. Number:	0146	Action Memo Date:	6/19/2013
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	5/30/2013	Start Date:	5/30/2013
Demob Date:	6/24/2013	Completion Date:	6/24/2013
CERCLIS ID:	MSN000410978	RCRIS ID:	
ERNS No.:		State Notification:	05/30/2013
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

This incident is an emergency response to address suspected ricin contamination at two locations in Tupelo, Mississippi.

1.1.2 Site Description

In April 2013, a man living in the Tupelo, MS area is suspected to have sent ricin tainted letters to President Obama and other officials. Two locations in the Tupelo area were tested by the Federal Bureau of Investigation (FBI) and determined to contain ricin. The locations consist of a karate dojo and a house trailer used for storage. The locations have been secured by FBI and evidence, including ricin tainted items, were collected by the FBI. The extent of the remaining ricin contamination is unknown and decontamination of the locations may be required prior to occupancy. The Mississippi Department of Environmental Quality (MS DEQ) referred the sampling and decontamination actions to EPA. The EPA, START contractor, and ERRS contractor mobilized to the site on 5/30/13 to conduct entry into the two locations to conduct a reconnaissance in preparation for the sampling and cleanup actions. Ricin is a toxic protein extracted from the castor bean. Ricin can cause severe respiratory distress and death even at low concentrations and short exposure duration. EPA coordinated the the response with MS DEQ, MS Department of Health, local agencies, and the FBI.

1.1.2.1 Location

The two locations consist of a former karate dojo business located at 102 Rankin Road Extended, Tupelo, MS, and a house trailer located at 146 County Road 637, Saitillo, MS.

1.1.2.2 Description of Threat

Ricin is a toxic protein extracted from castor beans. Depending on the route of exposure, even small doses of ricin can cause severe respiratory distress, lung damage, and death. The ricin contaminated locations, if not properly decontaminated, would provide potential threats to human health by providing an exposure threat to adults and children who occupy or visit the areas. One location is a former karate business so there is a possibility that the business could be re-opened as a karate business which typically has patrons of varying ages with exposed feet and hands.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Sample information provided to EPA by the FBI indicated the presence of ricin in certain areas of the karate dojo and on certain items the suspect moved from the dojo to a house trailer.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On May 30, 2013, EPA, the EPA START contractor, and an EPA cleanup contractor, mobilized to the Site to begin evaluation and decontamination activities.

2.1.2 Response Actions to Date

Based on information provided by the FBI, the OSC decided to conduct sampling at the trailer location to determine if decontamination was necessary. Information indicated the trailer was used for storage of certain items moved from the dojo to the trailer by the suspect. The majority of the items were removed as evidence by the FBI. A limited number of these items were determined to contain suspected ricin by the FBI and it is not believed the suspect processed the ricin at the trailer.

On May 30, 2013 EPA collected nine samples from various surfaces throughout the trailer. Samples were collected from areas that were associated with items removed by the FBI, adjacent areas including counter tops and floors, bathrooms, bedroom floors and contact surfaces were also sampled. The samples were delivered to the Mississippi Department of Health (DOH) lab in Jackson, MS. The sample evaluation by the DOH would consist of a two test process. First the sample would be tested using the Polymerase Chain Reaction (PCR) method which looks for DNA of the gene that produces the ricin protein. If the PCR indicates a positive result a second test, called Time-Resolved Fluorescence Immunoassay (TRFI), is conducted. In the TRFI test, the lab uses an antibody that binds to ricin to enable them to detect it in environmental samples. It is a way to determine if the ricin produces toxin. If both the PCR and TRFI tests are positive then ricin is confirmed. The PCR results for all the trailer samples were negative, so there was no need to run the TRFI test. Based on the results, EPA does not anticipate any further actions at the trailer location.

On June 4, 2013 EPA sampled the karate dojo location. Based on information provided by the FBI, it is suspected that the ricin was processed at the karate dojo. FBI sampling indicated suspected ricin in multiple sample locations. After consultation with the EPA Consequence Management Advisory Team (CMAT), the National Homeland Security Research Center, the EPA OSC decided to decontaminate the dojo with a 10% bleach solution prior to conducting EPA sampling. The inside of the dojo has bare concrete floors, with walls and other surfaces being open and accessible for decontamination efforts.

USES removed suspended ceiling tiles in areas of concern, as well as carpet from an entry way at the front of the facility. USES then applied the bleach solution with hand sprayers and mops to all floors and walls and the areas were allowed to dry overnight. After the bleach solution was dry, EPA collected 33 samples, including field duplicates, from various surfaces at the dojo. Sample locations were determined based on the past and potentially future uses of the facility. These areas included, bare concrete floors, walls (approximately 3-1/2 ft. – 4-1/2 ft. above the floor), bathroom sinks, p-traps and toilets. A sample of the waste generated by EPA's cleanup actions was also collected.

Of the 33 samples collected at the karate dojo, results from the MSDOH lab indicated three positive results using the PCR test. The lab determined that the bleach picked up on the sample swap interfered with the TRFI test and therefore, TRFI testing would not be a reliable way to verify the presence of ricin in the three samples. The three samples were sent to the Center for Disease Control (CDC) for further testing using a Ricin Component Multiplex Assay test (RCMA). This test takes into account the presence of bleach and calculates the results accordingly. One sample collected from the floor of a small bathroom was determined to be negative for ricin. Results for the other two samples, which consisted of a sample and duplicate sample from the sink and sink cabinet, were inconclusive. CDC provided the two inconclusive samples to their National Center for Environmental Health (NCEH) lab who ran a Ricin Mass Spectrometry Activity Assay test on the samples. NCEH determined the results as inconclusive citing the bleach as a possible test interference. To ensure EPA's response was protective of the public, the OSC decided to remove the sink and associated cabinet as a precaution.

EPA, START and USES mobilized to the site on June 24, 2013 to complete the cleanup. EPA had USES remove the sink and its associated cabinet. The old sink and cabinet were placed directly into a over pack drum. A new sink and cabinet were installed.

The roll off generated during EPA's June 4 activities, which contained ceiling tiles, carpet, and personnel protective equipment, was covered and transported to a Subtitle D landfill under a special waste designation. The waste was handled similarly to asbestos waste where a designated landfill area is prepared for the waste and once dumped, the area is covered immediately. The over pack drum containing the sink and cabinet was transported and handled in same manner at the landfill.

As part of the restoration operations at the facility, new carpet was installed in the entry way to the facility and new ceiling tile was installed to replace the tiles that were removed by EPA's contractor.

After completion of the decontamination activities and review and discussion of the sampling data by EPA, MSDEQ, and MSDOH, the MSDOH generated and provided property clearance letters to the two property owners.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The suspected responsible party is James Everett Dutschke who is currently under Federal indictment.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
materials potentially contaminated with deactivated ricin	rugs, tiles, PPE	10 cubic yards	2436	special waste burial	Three Rivers Regional Landfill, Pontotoc, MS
suspected ricin contaminated sink/cabinet	solid	1, 85 gallon over pack drum	5426	special waste burial	Three RiversRegional Landfill. Pontotoc, MS

2.2 Planning Section

2.2.1 Anticipated Activities

No further EPA activities are anticipated.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.