

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Hormigueros Pyrotechnics - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: POLREP #3
Final
Hormigueros Pyrotechnics
A25M
Hormigueros, PR
Latitude: 18.1295900 Longitude: -67.1091500

To: Walter Mugdan, 2ERRD, Director
Eric Mosher, 2ERRD-RPB, Chief
Jose Font, R2-CEPD, Director
Ramon Torres, R2-CEPD
Brenda Reyes, R2-CEPD
Mark Pane, 2ERRD-RAB
George Zachos, 2ERRD
Tim Grier, EPA-HQ
Gilberto Irizarry, EPA-HQ
Juan Baba, EQB, Director of Superfund & Emergency Response
Luis Rodriguez, EQB - Mayaguez

From: Dilshad Perera, On-Scene Coordinator

Date: 9/30/2015

Reporting Period: 08/05/2015 to 09/30/2015

1. Introduction

1.1 Background

Site Number:	A25M	Contract Number:	
D.O. Number:		Action Memo Date:	9/30/2015
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	6/28/2015	Start Date:	6/24/2015
Demob Date:	8/13/2015	Completion Date:	8/12/2015
CERCLIS ID:	PRN000201799	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

On May 26th 2015, a fire and explosion occurred at an illegal pyrotechnics storage warehouse. The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) attributed the cause of the fire to be as a result of improper installation that may have influenced the overload, arcing and causing the molten material to be expelled.

The warehouse is divided into three bays and suffered significant damage, particularly the middle bay which housed the illegal pyrotechnics. The middle bay's roof is all but nonexistent as are the front and side walls.

Pyrotechnics contain salts of heavy metals such as barium, strontium, lithium and copper to generate specific colors. In addition older pyrotechnics may also contain lead salts as a primer. The resultant ash – estimated at approximately 100 cubic yards – may contain these heavy metals.

1.1.2.1 Location

The warehouse is located in Hormigueros, Puerto Rico. Within 100 yards of the warehouse is a large residential development as well as a large supermarket. Directly across the street is an unnamed stream to which storm-drain water discharges into. This unnamed stream drains into a second unnamed stream – at the confluence of which a school of large fish was observed.

1.1.2.2 Description of Threat

There is potential of heavy metals such as barium, copper, lead, strontium and lithium being present in the ash. Barium and lead also have the potential of exhibiting Toxicity Characteristic. Copper can, even in low concentrations be acutely toxic to all aquatic life.

Significant portion of the ash – approximately 100 cubic yards – is stockpiled in the middle bay which no longer has a roof or side and front falls, there is a potential for the ash to migrate through wind and tropical rainfalls.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA obtained written access agreement from property title holder on June 16th, 2015. On June 17th, 2015, EPA, RST and EQB met on site to collect five (5) samples. The samples were analyzed for Toxicity Characteristics, Total Metals (TAL) and semi-volatile organics.

The results indicated elevated levels of copper between 80mg/kg and 23,000mg/kg. Elevated levels barium was also detected - between 1,630mg/L and 2,800mg/L. The Toxicity Characteristic results for barium, however, were well below RCRA levels

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

- On afternoon of August 5th, 2015, the Contracting Officer verbally notified the ERRS contractor that the Task Order Ceiling will be increased by \$50,000 to a total of \$200,000
- ERRS immediately began the process of binding to a subcontract – previously identified through the three bidding process – for transport and disposal.
- The ERRS crew – consisting of a Response Manager, an equipment operator and a clean-up technician – was mobilized to Puerto Rico on Sunday, August 9th, 2015, in anticipation of off-site disposal.
- 5 roll-off containers (20 cubic yard capacity) were delivered to the site on the morning of Monday, August 10th, 2015.
- The selected industrial landfill obtained commonwealth approvals to accept the waste from the Hormigueros site on the afternoon of August 10th, 2015.
- On the morning of August 11th, 2015, the off-site shipment was begun.
- On the afternoon of August 12th, 2015, the shipping was completed and heavy equipment demobilized.
- On August 13th, 2015, ERRS crew demobilized from Puerto Rico.
- On August 13th, 2015, EPA coordinated a meeting with Agents from the Puerto Rico Police Department Bomb-Squad, EQB and landfill operators. The primary purpose of the meeting was to discuss:
 - o To describe EPA's observations and findings
 - o The rationale for shipping the waste to a local industrial landfill as non-RCRA hazardous waste.
 - o For the group to begin discussing operational protocols to deal with the various scenarios encountered by the PRPD as it relates to pyrotechnics.
 - o The Landfill arranged for tour of the sludge pits to show the actual solidification process of the Hormigueros waste.
 - o The ultimate goal of the technical group – consisting of EPA, PRPD, EQB and landfill – is to develop an operational protocol and then have each agency approve the plan, since there are commonwealth and Federal laws involved.

On August 12th, 2015 all site operations authorized in the Action Memorandum was completed

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

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Spent Pyrotechnics/copper	Solid	128cubic yards	RO-01 through 08	None	Penuelas Valley Landfill Km 4/5 Rr 385, Penuelas, PR 00624

2.2 Planning Section

No information available at this time.

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.