U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Integrated Waste Management Tire Fire - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #5**
Site Access Roads Widened and Leveled
Integrated Waste Management Tire Fire
A-23R
Penuelas, PR
Latitude: 18.0099907 Longitude: -66.7209286

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From: Paul Kahn, Kelli Lucarino, On-Scene Coordinators
Date: 3/26/2014
Reporting Period:

1. Introduction

1.1 Background

Site Number:	A-23R	**Contract Number:**	EP-S2-10-01
D.O. Number:	0069	**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	3/19/2014	**Start Date:**	3/15/2014
Demob Date:		**Completion Date:**	
CERCLIS ID:	PRN008020158	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Tire fire at defunct tire shredding facility.

1.1.2 Site Description

The Site is located in a remote area bordered by tall hills on two sides. It is located

approximately 2 miles from the Caribbean Ocean.

1.1.2.1 Location

The Site is located on a dirt side road off Rt. 385, Km. 2.9, approximately 10 miles north west of Ponce.

1.1.2.2 Description of Threat

There is a pile of shredded tires approximately 60 feet wide by 150 feet long and 60 feet high had caught fire in August, 2008. The fire was partially controlled by covering the pile with dirt. Subsequently, the fire smoldered until fissures in the pile began to allow air into the pile. The current potential threat is that the now-smoldering pile of shredded tires is on the verge of re-igniting.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Air monitoring and sampling data is still being acquired and no preliminary results are available. However, there is ample data/information on emissions from tire fires. See attached information in the Reference Section. Visible inspection of the top of the smoldering pile showed deposition of an oil-like substance, similar to condensation, on the edge of the fissures that have opened up on the pile. This suggests that an oil component of the smoke plumes is condensing on the cooler outer edges of the fissures. This would typically be polynuclear aromatic compounds such as benzo- and anthro- pyrenes, both which are carcinogenic substances.

On March 19, 2014 ERT returned to the Site, reestablished air monitoring (viewable via VIPER) and set up 4 data RAMS and SUMA canisters sampling stations. Sampling will run through Thursday March 20th. RST will sample piles of oil-contaminated soil and run-off water collected in a small trough at the base of the pile of smoldering tires. Visual observations by the OSC revealed that overnight portions of the soil covering the smoldering tire pile slid off the pile, exposing small fissures which allowed air to infiltrate the pile. This resulted in increased smoke plumes and the soil felt hotter to the touch than previously noted. This is probably indicative of increased burning inside the pile. If additional soil is eroded it is likely that the fire will re-ignite which will cause additional problems with smoke and pyrolytic oil releases.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

<u>UPDATED INFORMATION IS IN BOLD FONT</u>.

The OSC has mobilized 5 ERT/SERAS staff to the Site to set up air monitoring uploaded to the VIPER system. Sampling of air, soil and water media has begun as well.

The OSC has contacted the Chief of the local Fire Department and a meeting has been set up to discuss the situation on 3/21/14.

On March 19, 2014 the ERRD Division Director authorized and partially funded a CERCLA response action at the Site. The ERRS contractor has been notified and mobilized to the Site. ETA for ERRS to arrive at the Site is Sunday, March 23, 2014. Additional contractor assets will be mobilized to the Site as deemed necessary.

The OSC has contacted the PR Environmental Quality Board (EQB) and informed the EQB that EPA will be able to assist in extinguishing the fire.

The OSC will attempt to meet with a local cement company (CEMEX) that may be willing to take the piles of approx. 8,000 unburnt scrap tires at the Site. They have historically used shredded tires as a supplemental fuel in the cement manufacturing process and are permitted by the EQB for this activity.

On March 21, 2014 the OSC met with representatives of the EQB, the Puerto Rico National Guard (PRNG) and the Puerto Rico Fire Department (PRFD) for a kick-off meeting. At that time all parties discussed possible response scenarios and the respective roles to be played by the participating organizations. Subsequently, all parties reconvened at the Site in the afternoon for further discussions regarding strategy and possible tactics to be employed to open the pile and extinguish the fire. A tentative schedule to initiate the actual 'attack' on the smoldering tire fire pile is April 1 - 3. The actual date will depend on how quickly assets such as command post, heavy equipment, air monitoring, water supplies and personnel can be mobilized to the Site.

The PRNG rep stated he is willing to use NG heavy equipment to cut two access/egress roads into the Site and to clear fire breaks around the pile of smoldering tires. An existing abandoned road will provide the basis for the fire break. The EQB will forward a request to the Office of the Governor requesting authorization for the use of National Guard assets to assist in this response.

On Saturday, March 22, 2014 the OSC visited the Site and used a thermal imaging camera to assess temperatures in and on the pile of smoldering tires. The thermal camera recorded temperatures at the large opening on the top at 300F + temperatures. Temperatures at the fissures on top of the pile are in the 240F - 260F range. The camera revealed a hot spot on the south facing slope of the pile where the soil has subsided. Temperatures at that location varied from 114F- 140F. The presumption is that if the

temperatures on the top of the pile are in the 240F - 300F+ range then the temperatures inside the pile are in the high hundreds of degrees. Pyrolysis of tires generally begins at about 250C, or roughly 480F. Based on the range of surface temperatures at the main opening, it is highly likely that pyrolytic oil is being generated inside the pile. Additional thermal imaging will be performed on a daily basis and will be a task included in the HASP and Work-Plan.

On March 25- 26, 2014 the PR DPNR was able to clear and level the two access roads to the Site, enabling ERRS to mobilize an office trailer, generator, dozer, excavator and other support functions into the Site. On March 26th ERRS and the OSC retrieved the Portable Satellite Unit (PSU) from the EPA CEPD office and transported it to the Site.

The physical appearance of the smoldering pile of tires continues to change daily. The pile seems to be splitting in half vertically and additional fissures/subsidence are visible. Infra-red readings of the face of the pile and top/sides reveal increasing surface temperatures. Additional areas of the top of the pile appear to be collapsing into subsurface voids and smoke/odor emissions continue to be more dense each day.

The Site command post should be fully operational by March 28th. Night-time security guard services will commence on March 28th. DPNR Enforcement police officers will assist with traffic control on the access road to the Site during the tear-down event. OSC Lucarino will deploy to the Site on March 27th. The OSC has contacted the adjacent landfill owner and is coordinating Site events with landfill ops to minimize impact on refuse disposal.

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

The OSC has met with one of the former owners/operators (PRP) of the defunct tire processing business and obtained access to perform the current activities. The PRP has offered his willingness to cooperate with EPA to resolve the problem.

The PRP has offered to contact the local cement manufacture to get the company to take the piles of shredded, unburned tires to use as a supplemental fuel. As of the date of this POLREP the OSC has not heard back from the RP on the status of that offer. Additional information pertaining to other PRPs will be forthcoming.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*

2.2 Planning Section

2.2.1 Anticipated Activities

***Access road* clearing should be fully complete by March 27th. Command Post should be fully operational by March 28th. One interior road and fire breaks still need to be cleared. This could be a National Guard function. Non-potable water tankers for fire fighting are being located and will be ordered.**

2.2.1.1 Planned Response Activities

Firefighting strategy an evolving process and is being closely coordinated with the PRFD and the PREQB. A status meeting is scheduled at the Site for March 27th with the PRFD and PREQB.

2.2.1.2 Next Steps

Continue coordinating with the PRFD to stage FD assets at the Site. Continue coordinating with the PREQB with respect to community relations, air monitoring and general/mutual inter-agency needs.

2.2.2 Issues

The sole possible potential problem would be if the smoldering tire pile ignited before the responding agencies could deploy manpower and equipment.

2.3 Logistics Section

Logistics is on-going and the OSC is in close coordination with all participating entities.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

n/a

3.2 Cooperating Agencies

Puerto Rico Environmental Quality Board

Puerto Rico Fire Department

Puerto Rico National Guard

Puerto Rico Dept. of Natural Resources

4. Personnel On Site

One EPA OSC

One tech with Weston Solutions, Inc., an EPA technical assistance contractor.

Five response contractors with Kemron Environmental Services Inc.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

6.2 Reporting Schedule

POLREPs will be issued as new information is generated.

7. Situational Reference Materials

See Documents Section for literature pertaining to tire fires and pollutants that are emittied from a tire fire.

POLREP #5 Last Updated 3/26/2014