

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
ECI South Tank Farm - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #3
Progress
ECI South Tank Farm

East Chicago, IN
Latitude: 41.6461097 Longitude: -87.4808876

To:
From: Paul Atkociunas, OSC
Date: 10/7/2015
Reporting Period: March 30 - October 7, 2015

1. Introduction

1.1 Background

Site Number:	Z5NR	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	OPA	Response Type:	PRP Oversight
Response Lead:		Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:		Start Date:	9/16/2014
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:	E14529	Reimbursable Account #:	

1.1.1 Incident Category

OPA Category - Former Tank Farm

1.1.2 Site Description

The former ECI Refinery is a former petroleum refinery located in East Chicago and Hammond, Indiana. Between 1916 and 1918, Sinclair Refining Company constructed the original refinery on the north parcels. The south parcels were used as a storage for petroleum products. Sinclair Refining Company operated the refinery until 1969 when it merged with Atlantic Richfield Company (Arco). Arco operated the facility until 1976 when it sold the facility. The maximum production at the facility occurred in 1970 with an average of 130,000 barrels per day and approximate peaks of 140,000 barrels per day. From approximately 1985 and 1989, the refinery was dismantled and demolished and all above ground structures were removed by 1990. The property is owned by the East Chicago Waterway Management District (ECWMD).

The site has been divided into seven (7) parcels for additional investigation. The parcels include the South Tank Farm, the Southwest Tank Farm, the South of the Southwest Tank Farm, the South of the South Tank Farm, the Pollution Control Area, the Hammond Tank Farm and the West Tank Farm. Please refer to the ECI Refinery Sites map located in the documents section of the website for a delineation of the individual parcels. Most of the above ground structures associated with the refinery have been demolished. A Confined Disposal Facility (CDF) for the disposal of Indiana Harbor dredged sediment has been constructed in the former location of the Main Refinery and North Tank Farm. The ECI - South Tank Farm Site is the location of a former tank farm.

The Lake George Branch (Canal) of the Indiana Harbor and Ship Canal (IHSC) runs through the former ECI Refinery and the US Army Corps of Engineers maintains a navigational channel on the Canal east of the railroad bridge. The Canal discharges into Lake Michigan located approximately 3-miles away.

1.1.2.1 Location

The ECI - South Tank Farm Site is located at approximately 3700 Indianapolis Boulevard, East Chicago, Lake County, Indiana. The Site coordinates are 41.6461097 latitude and -87.4808876 longitude. The site is bounded to the north by the Canal with an abandoned industrial area beyond, including a confined disposal area for sediment dredged from the IHSC in a separate U.S. Army Corps of Engineers (USACE) remediation project. It is bordered to the east by Indianapolis Boulevard with industrial facilities beyond, to the south by

McShane Avenue with East Chicago Central High School beyond, and to the west by railroad tracks with industrial facilities beyond.

1.1.2.2 Description of Threat

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The ECI - South Tank Farm site was subject to historical investigations. These studies indicated that the shallow groundwater beneath the site was contaminated with hydrocarbons, and that these hydrocarbons were migrating off site and into the Canal. Arco operates passive oil recovery wells in an attempt to recover floating hydrocarbons on the groundwater table. Arco also installed and maintains boom along the bank of the site and in several areas perpendicular to the bank across the Canal.

Light Non-Aqueous Phase Liquid (LNAPL) is present on the South Tank Farm, and is likely a result of multiple releases over the operational history of the Site. Based on previous field observations and historical records, LNAPL present at the Site is thought to be weathered diesel or heating oil with some lubricants. Approximately 75,000 feet of petroleum pipeline remain on the site. Oil within the pipeline or previously within the pipeline, presents a threat of discharge of oil into the navigable waterway. The Site has approximately 2,200 feet of bank along the Canal.

On September 16, 2014, EPA and START mobilized to the site to collect samples to determine the threat of discharge of petroleum. EPA and START were accompanied by Arco contract personnel who collected split samples. Soil and water/sheen sampling confirmed the presence of petroleum hydrocarbons on the bank of the Site and in the Canal. EPA and START also observed / documented oil discharging from the bank of the Site into the Canal. Oil has been documented between the boom parallel to the bank and the bank of the South Tank Farm Site. Please see the 'Images' section of the web site for photos and 'Documents' section for videos.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

See the previous POLREPs for previous actions.

During the reporting period, Arco continued to a) operate a passive well collection system on the Site, b) maintain containment and absorbent boom on the Canal, c) collect oil contaminated sorbents / boom on the Canal and d) conduct hazing operations at the site. Arco has installed a Wetland Wailer to deter wildlife from contacting oil in the Canal. EPA and USFWS conducted oversight of waterfowl mitigation measures. EPA and START reviewed four versions of the Site Investigation Work Plan (SIWP)

Site activities are coordinated with actions at the ECI - West Tank Farm Site, located to the west of the ECI - South Tank Farm Site, on the north bank of the Canal. Additional information can be located at www.epaossc.org/ECIWestTankFarm

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

OSC Atkociunas issued a Notice of Federal Interest (NOFI) to Arco and the ECWMD. On March 23, 2015, EPA issued an Administrative Order by Consent (AOC) to Arco for the ECI South Tank Farm and ECI West Tank Farm Sites (Docket No: CWA-1321-5-15-003). The AOC requires Arco to investigate the nature and extent of contamination at the sites. The AOC also requires Arco to develop final removal measures to mitigate the discharge of oil into the Canal. On October 1, 2015, EPA approved the SIWP.

2.1.4 Progress Metrics

On October 1, 2015, EPA approved the Site Investigation Work Plan (4th Revision) submitted by Arco, in accordance with the AOC.

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

- Oversee hazing operations designed to deter wildlife from contacting oil
- Continue to evaluate boom deployment / maintenance to mitigate impact to the environment
- Direct / oversee Arco's implementation the Site Investigation Work Plan
- Coordinate response actions with stakeholders
- Document conditions at the site

2.2.1.2 Next Step

Per the Site Investigation Work Plan, Arco shall:

1. Define the extent of LNAPL and individual constituents of concern (COCs) in areas relevant to the remedy evaluation.
2. Assess mobility and hydraulic recoverability of LNAPL near the Canal and in upland areas relevant to the remedial evaluation.
3. Collect geotechnical data near the Canal where a final remedy may be aligned to assess the feasibility of a barrier approach as a remedial option.

4. Complete test pits in select areas of the Site to evaluate field stability of sidewalls and field conditions for information that may be used in a remedy evaluation.
5. Complete test pits to locate potential pipelines at locations indicated on historical facility maps on the South Tank Farm Site, and trace with geophysical methods and/or expose lines located via test pits to assess the extent of the lines near the Canal.
6. Complete a bench-scale treatability study to assess viability of air sparging, biosparging, or accelerated weathering approaches as final remedy options.
7. Complete a remedial evaluation using the information collected during the additional assessment.
8. Set a schedule for completion of the supplemental site characterization work.

2.2.2 Issue

- Larger numbers of waterfowl are expected to pass through the area during the migration season.

2.3 Logistics Section

Arco has provided waterfowl deterrence measures, boats, personnel, maintains boom, and collects sorbents/boom in the Canal.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A health and safety plan for Site has been developed and approved.

2.5.2 Liaison Officer

N/A

2.5.3 Information Officer

N/A

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

Indiana Department of Environmental Management

Indiana Department of Natural Resources

United States Fish and Wildlife Service

East Chicago Waterway Management District

United States Coast Guard

United States Army Corps of Engineers

United States Department of Agriculture - Animal and Plant Health Inspection Service

4. Personnel On Site

Intermittent / varies

5. Definition of Terms

AOC	Administrative Order by Consent
Arco	Atlantic Richfield Company
CDF	Confined Disposal Facility
COC	Constituent of Concern
ECWMD	East Chicago Waterway Management District
EPA	Environmental Protection Agency
FPN	Federal Project Number
HASP	Health and Safety Plan
IDEM	Indiana Department of Environmental Management
IDNR	Indiana Department of Natural Resources
IHSC	Indiana Harbor and Ship Canal
LNAPL	Light Non-Aqueous Phase Liquid
OPA	Oil Pollution Act
NA	Not Applicable
NOFI	Notice of Federal Interest

OSC	On-Scene Coordinator
OSLFT	Oil Spill Liability Trust Fund
PolRep	Pollution Report
PRP	Potentially Responsible Party
PRFA	Pollution Removal Funding Authorization
SIWP	Site Investigation Work Plan
START	Superfund Technical Assessment and Response Team
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service

6. Additional sources of information

6.1 Internet location of additional information/report

The website for the Site can be located at www.epaosc.org/ECISouthTankFarm
 Images can be located at http://www.epaosc.org/site/image_list.aspx?site_id=9494

The website for the ECI - West Tank Farm Site can be located at www.epaosc.org/ECIWestTankFarm

6.2 Reporting Schedule

The On-Scene Coordinator will issue additional POLREPS, as required.

7. Situational Reference Materials

No information available at this time.