

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Town of Pines Groundwater Plume - OU2 - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #2
PolRep 2
Town of Pines Groundwater Plume - OU2
B5V9
Town of Pines, IN
Latitude: 41.6887279 Longitude: -86.9440403

To: Doug Petroff, Project Coordinator
Dan Sullivan, NIPSCO
Bill Haswell, Haley & Aldrich

From: Jacob Hassan, On-Scene Coordinator

Date: 8/11/2016

Reporting Period: 6/24/2016-8/11/2016

1. Introduction

1.1 Background

Site Number:	B5V9	Contract Number:	
D.O. Number:		Action Memo Date:	10/15/2015
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	PRP	Incident Category:	Removal Action
NPL Status:	NPL	Operable Unit:	
Mobilization Date:	6/6/2016	Start Date:	6/7/2016
Demob Date:		Completion Date:	
CERCLIS ID:	INN000505593	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time Critical Removal

1.1.2 Site Description

The Town of Pines bounds about 330 homes, a small number of parks, a playground, open space as a part of the railroad right-of-way, schools, and public buildings. Some properties in or near the town have levels of arsenic and/or thallium elevated above EPA RMLs and preliminary data indicate that some properties also have levels of lead elevated above EPA RMLs. The source for the arsenic, thallium, and lead contamination is coal combustion residuals used as fill materials around the Town of Pines during (but possibly not limited to) the 1970's. The coal combustion residuals were generated by the Michigan City Power Generation Station was owned and operated by NIPSCO.

The Town of Pines has a population of roughly 700 people and is primarily a residential community with some commercial (e.g., restaurants, gas stations, motels, etc.) and industrial (e.g., Illiana Block) land use, in addition to undeveloped and/or open space areas such as parks/playgrounds, wetland/swamp areas, wooded areas, ponds, and drainage ditches. Until 2004, drinking water for the residences and businesses in the Town of Pines was supplied through domestic (private) wells located on individual properties which pumped groundwater from the shallow surficial aquifer and/or the deeper confined aquifers. Additionally, there is no sewer service in the Town of Pines, so all septic wastes are presumed to be discharged to individual, subsurface septic systems.

1.1.2.1 Location

The site includes the Town of Pines and the Area of Investigation as defined in the Remedial Investigation/Feasibility Study (RI/FS).

1.1.2.2 Description of Threat

The threat is exposure to elevated levels of arsenic, thallium and lead from coal combustion residuals that were used as fill material. Arsenic, thallium and lead are hazardous substances as defined in Section 101(14) of CERCLA, 42 U.S.C. § 101(14), and as designated in 40 CFR § 302(4) and Table 302.4.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In September 2001, the Indiana Department of Environmental Management (IDEM) conducted groundwater sampling at several private drinking wells throughout the Town of Pines, Indiana. The analytical results

showed elevated levels of boron and molybdenum in some residential wells. In May 2002, EPA sampled more than 100 drinking water wells in the Town of Pines. Laboratory analysis of these samples showed that drinking water wells at 30 homes and businesses in the Pines community were contaminated with elevated levels of boron and/or molybdenum that exceeded removal action levels (standard used prior to Removal Management levels or RMLs). An alternative water supply was provided for these homes. A subsequent groundwater investigation identified the source of the contamination to be from a state-permitted landfill located in the Town of Pines. The landfill, Yard 520, received coal ash from the power generation plant in Michigan City, Indiana that was and is owned and operated by NIPSCO (Michigan City Power Generation Station). As a result, NIPSCO and the other Potential Responsible Parties (PRP's) entered into an Administrative Order on Consent (AOC I) with EPA to install a municipal waterline for the residents with impacted drinking water. In April 2004, a second AOC (AOC II) was signed by the PRPs that required a Remedial Investigation and Feasibility Study (RI/FS for AOC II or RI/FS) for the Town of Pines Groundwater Plume Site, which is currently on-going.

Utilizing town records from the 1970s, anecdotal information from residents, visual inspections conducted during the municipal water line installation, among other means, dozens of residential and municipal properties located at the Site have been identified as having accepted fly ash, bottom ash, or other coal combustion byproducts or residuals (coal combustion residuals) from the Michigan City Power Generation Station for use as fill material. Due to concerns about the historical use of such materials and as a part of the RI/FS under AOC II, NIPSCO's contractor conducted a residential radiation survey and supplemental soil sampling in November 2014 at nine of these properties, including residential properties and properties owned by the Town of Pines. Soil samples were collected and analyzed under an EPA approved sampling plan (the Supplemental Soil Characterization Work Plan) and Quality Assurance Project Plan (QAPP). Soil sample results indicated elevated levels of arsenic and thallium. In total, seven of nine properties have arsenic levels above background, but only five of those have arsenic levels exceeding the RML of 67 mg/kg. In addition, several properties had thallium levels exceeding the RML of 2.3 mg/kg. Preliminary lead data collected at four of the nine properties have lead levels above the RML of 400 mg/kg.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Entact is the removal contractor selected by NIPSCO to conduct the cleanup work. Haley & Aldrich is the technical contractor to NIPSCO that will oversee the confirmation sampling and adherence to the engineered drawings.

On June 6th, Entact mobilized in heavy equipment and field personnel to the site to begin removal actions.

There are 13 properties scheduled for a removal action. These properties will be remediated one at a time. Work will be limited to Monday through Friday, 7 am to 5 pm.

2.1.2 Response Actions to Date

Below is a status summary of each of the properties and where they are at in the removal process.

GS042

Topsoil grading complete.

- Obtain property owner approval for pre-design survey work - COMPLETED
- Conduct subsurface utility survey- COMPLETED
- Conduct site topographic and property boundary survey- COMPLETED
- Conduct landscape inventory- COMPLETED
- Complete Design Drawings and obtain USEPA approval- COMPLETED
- Obtain property owner approval for removal work- COMPLETED
- Photo document pre-excavation conditions- COMPLETED
- Conduct building condition survey, if applicable- COMPLETED
- Mobilize for construction- COMPLETED
- Install site security and access controls- COMPLETED
- Install erosion and sedimentation controls- COMPLETED
- Establish construction controls and facilities- COMPLETED
- Establish decontamination facilities for personnel and equipment- COMPLETED
- Clear and grub - COMPLETED
- Conduct excavation activities - COMPLETED
- Conduct confirmation sampling - COMPLETED
- Place a marker barrier in excavations where target materials remain in place - COMPLETED
- Backfill excavation – COMPLETED
- Complete landscape restoration – NOT STARTED
- Demobilize – NOT STARTED

GS037

Topsoil grading complete.

- Obtain property owner approval for pre-design survey work - COMPLETED
- Conduct subsurface utility survey- COMPLETED

- Conduct site topographic and property boundary survey- COMPLETED
- Conduct landscape inventory- COMPLETED
- Complete Design Drawings and obtain USEPA approval- COMPLETED
- Obtain property owner approval for removal work- COMPLETED
- Photo document pre-excavation conditions- COMPLETED
- Conduct building condition survey, if applicable- COMPLETED
- Mobilize for construction- COMPLETED
- Install site security and access controls- COMPLETED
- Install erosion and sedimentation controls- COMPLETED
- Establish construction controls and facilities- COMPLETED
- Establish decontamination facilities for personnel and equipment- COMPLETED
- Clear and grub - COMPLETED
- Conduct excavation activities - COMPLETED
- Conduct confirmation sampling - COMPLETED
- Place a marker barrier in excavations where target materials remain in place - COMPLETED
- Backfill excavation – COMPLETED
- Complete landscape restoration – NOT STARTED
- Demobilize – NOT STARTED

GS089

Topsoil grading complete.

- Obtain property owner approval for pre-design survey work - COMPLETED
- Conduct subsurface utility survey- COMPLETED
- Conduct site topographic and property boundary survey- COMPLETED
- Conduct landscape inventory- COMPLETED
- Complete Design Drawings and obtain USEPA approval- COMPLETED
- Obtain property owner approval for removal work- COMPLETED
- Photo document pre-excavation conditions- COMPLETED
- Conduct building condition survey, if applicable- COMPLETED
- Mobilize for construction- COMPLETED
- Install site security and access controls- COMPLETED
- Install erosion and sedimentation controls- COMPLETED
- Establish construction controls and facilities- COMPLETED
- Establish decontamination facilities for personnel and equipment- COMPLETED
- Clear and grub - COMPLETED
- Conduct excavation activities - COMPLETED
- Conduct confirmation sampling - COMPLETED
- Place a marker barrier in excavations where target materials remain in place - COMPLETED
- Backfill excavation – COMPLETED
- Complete landscape restoration – NOT STARTED
- Demobilize – NOT STARTED

GS014

Small pond area excavated and backfilled. Topsoil being brought in and topsoil grading underway.

- Obtain property owner approval for pre-design survey work - COMPLETED
- Conduct subsurface utility survey- COMPLETED
- Conduct site topographic and property boundary survey- COMPLETED
- Conduct landscape inventory- COMPLETED
- Complete Design Drawings and obtain USEPA approval- COMPLETED
- Obtain property owner approval for removal work- COMPLETED
- Photo document pre-excavation conditions- COMPLETED
- Conduct building condition survey, if applicable- COMPLETED
- Mobilize for construction- COMPLETED
- Install site security and access controls- COMPLETED
- Install erosion and sedimentation controls- COMPLETED
- Establish construction controls and facilities- COMPLETED
- Establish decontamination facilities for personnel and equipment- COMPLETED
- Clear and grub - COMPLETED
- Conduct excavation activities - COMPLETED
- Conduct confirmation sampling - COMPLETED
- Place a marker barrier in excavations where target materials remain in place - COMPLETED

- Backfill excavation – ONGOING
- Complete landscape restoration – NOT STARTED
- Demobilize – NOT STARTED

GS012/GS054

Excavation work completed by ENTACT, backfilling operations underway. Additional marker barrier to be placed.

- Obtain property owner approval for pre-design survey work - COMPLETED
- Conduct subsurface utility survey- COMPLETED
- Conduct site topographic and property boundary survey- COMPLETED
- Conduct landscape inventory- COMPLETED
- Complete Design Drawings and obtain USEPA approval- COMPLETED
- Obtain property owner approval for removal work- COMPLETED
- Photo document pre-excavation conditions- COMPLETED
- Conduct building condition survey, if applicable- COMPLETED
- Mobilize for construction- COMPLETED
- Install site security and access controls- COMPLETED
- Install erosion and sedimentation controls- COMPLETED
- Establish construction controls and facilities- COMPLETED
- Establish decontamination facilities for personnel and equipment- COMPLETED
- Clear and grub - COMPLETED
- Conduct excavation activities - COMPLETED
- Conduct confirmation sampling - COMPLETED
- Place a marker barrier in excavations where target materials remain in place - ONGOING
- Backfill excavation – ONGOING
- Complete landscape restoration – NOT STARTED
- Demobilize – NOT STARTED

GS052

Excavation area prep work underway to begin excavation activities next week.

- Obtain property owner approval for pre-design survey work - COMPLETED
- Conduct subsurface utility survey- COMPLETED
- Conduct site topographic and property boundary survey- COMPLETED
- Conduct landscape inventory- COMPLETED
- Complete Design Drawings and obtain USEPA approval- COMPLETED
- Obtain property owner approval for removal work- COMPLETED
- Photo document pre-excavation conditions- COMPLETED
- Conduct building condition survey, if applicable- COMPLETED
- Mobilize for construction- COMPLETED
- Install site security and access controls- COMPLETED
- Install erosion and sedimentation controls- NOT STARTED
- Establish construction controls and facilities- NOT STARTED
- Establish decontamination facilities for personnel and equipment- NOT STARTED
- Clear and grub – ON-GOING
- Conduct excavation activities – NOT STARTED
- Conduct confirmation sampling – NOT STARTED
- Place a marker barrier in excavations where target materials remain in place - NOT STARTED
- Backfill excavation – NOT STARTED
- Complete landscape restoration – NOT STARTED
- Demobilize – NOT STARTED

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

NIPSCO is the identified PRP

2.1.4 Progress Metrics

Metrics are reported through 6/30/2016

537 loads of soil have been hauled off-site.

Estimated Backfill, Water and Energy Quantities

Item	Unit	Cumulative
Clean Fill	CY	4,815
Water	Ton	150,000

Diesel Fuel	Gal	1,200
Electricity	kWh	917

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Soil		13,568 tons		Disposal	Forest Lawn Landfill - Three Oaks, MI
Debris		100 tons		Disposal	Forest Lawn Landfill - Three Oaks, MI

2.2 Planning Section

2.2.1 Anticipated Activities

- Continue regularly project call.
- NIPSCO and their contractor, Haley & Aldrich, continue to investigate properties for elevated levels of arsenic, lead and thallium. Currently, 120 properties have been sampled to date.

2.2.1.1 Planned Response Activities

Sequencing of Events for Each Removal Action.

2.2.1.2 Next Steps

Continue to gain access to identified properties.

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

2.5.1 Safety Officer

Entact - Jerry Overton

2.5.2 Liaison Officer

USEPA - Eileen Deamer

2.5.3 Information Officer

USEPA - Sue Pastor and Rachel Bassler

NIPSCO - Nick Meyer and Angie Nelson

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

- IDEM
- Town of Pines
- National Park Service
- US Fish and Wildlife
- NIPSCO
- Haley & Aldrich
- Entact

4. Personnel On Site

Onsite Staff:

- EPA - 2
- START - 2

- NIPSCO - 3
- Haley & Aldrich - 6
- Entact - 30

5. Definition of Terms

EPA - United States Environmental Protection Agency
START - Superfund Technical Assistance and Response Team

RML - Removal Management Level

AOC - Administrative Order on Consent

mg/kg - milligrams per kilogram

RI/FS - Remedial Investigation/ Feasibility Study

6. Additional sources of information

6.1 Internet location of additional information/report

<http://www.epa.gov/superfund/town-pines-groundwater>

6.2 Reporting Schedule

As needed

7. Situational Reference Materials

No information available at this time.