U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Winslow Burn Site - Removal Polrep
Initial and Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #1**
Initial & Final
Winslow Burn Site
A229
Berlin, NJ
Latitude: 39.6624000 Longitude: -74.9077000

To:
From: Jack Harmon, OSC
Date: 7/26/2010
Reporting Period: 10/06/2009 - 05/17/2010

1. Introduction

1.1 Background

Site Number:	A229	**Contract Number:**	EP-W-04-055
D.O. Number:	0082	**Action Memo Date:**	2/12/2010
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	10/12/2009	**Start Date:**	10/6/2009
Demob Date:	4/30/2009	**Completion Date:**	5/17/2010
CERCLIS ID:	NJC200400372	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Excavation and off-site disposal of contaminated soil.

1.1.2 Site Description
The Site is located within the Winslow Fish and Wildlife Management Area which is administered by the Division of Fish and Wildlife's Bureau of Land Management. The WFMA is frequented by hunters, both legal and illegal, and naturalists. Adjacent to the Site was evidence of deer baiting and the Site was discovered by a naturalist seeking wild ginseng. The WFMA preserves a diversity of fish and wildlife habitats and provides countless outdoor recreational opportunities for New Jersey residents and visitors from out of state. The Site is located within an area designated as a Pinelands National Reserve by the Federal Government and a Pinelands Protection Area by the State of New Jersey.

1.1.2.2 Description of Threat
Exposure to dioxins (75 chemicals) occurs mainly from eating food that contains these chemicals. One chemical in this group, 2,3,7,8-tetrachlorodibenzo-p-dioxin or 2,3,7,8-TCDD, has been shown to be very toxic in animal studies. It causes effects on the skin and may cause cancer in people.

Lead is a cumulative toxin. The increasing amounts of lead can build up in the body eventually reaching a point where symptoms and disability occur. Particularly sensitive populations include children and women of child-bearing age who may cause the fetal transfer of lead. Cognitive deficits are associated with fetal and childhood exposure to lead. An increase in blood pressure is the most sensitive adverse health effect from lead exposure in adults. Effects on the kidney and nervous system are associated with increasing blood lead concentrations, both in children and adults. Other symptoms include: decreased physical fitness, fatigue, sleep disturbance, aching bones, abdominal pains, and decreased appetite.

Because antimony is found naturally in the environment, the general population is exposed to low levels of it every day, primarily in food, drinking water, and air. Exposure to antimony at high levels can result in a variety of adverse health effects. Breathing high levels for a long time can irritate eyes and lungs and cause heart and lung problems, stomach pain, diarrhea, vomiting, and stomach ulcers.

Arsenic occurs naturally in soil and minerals and may enter air, water, and land from wind-blown dust and may get into water from runoff and leaching. Breathing high levels of inorganic arsenic can cause a sore throat or irritated lungs. Ingesting very high levels of arsenic can result in death. Exposure at lower levels can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm,

damage to blood vessels, and a sensation of “pins and needles” in the hands and feet. Ingesting or breathing low levels of inorganic arsenic for a long time can cause a darkening of the skin and the appearance of small “corns” or “warts” on the palms, soles, and torso. Skin contact with inorganic arsenic may cause redness and swelling.

Copper is readily absorbed from the stomach and small intestine. Exposure to excessive levels of copper can result in a number of adverse health effects including live and kidney damage, anemia, immunotoxicity, and developmental toxicity. One of the most commonly reported adverse effect of copper is gastrointestinal distress. Copper is also irritating to the respiratory tract.

PCBs are readily absorbed into the body by all routes of exposure. PCBs may persist in human tissue for years after exposure stops. Long-term exposure to PCBs may affect the skin and liver. PCBs may impair the function of the immune system. At high levels, PCBs have been shown to produce cancer and birth defects in laboratory animals. Although PCBs are suspected as a human carcinogen, they have a very low potential for producing acute toxic effects. PCBs bio-accumulate to concentrations which are toxic. A number of human studies indicate that PCBs pass through the placenta to the fetus. PCBs also concentrate in human breast milk.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On June 3, 2009, the Removal Action Branch (“RAB”) received a request from the New Jersey Department of Environmental Protection’s (NJDEP’s) Site Remedial Program for removal action consideration under federal CERCLA. This request was based upon information provided to the NJDEP by the New Jersey Pinelands Commission. A copy of the request is included as Appendix B.

In February 2009, the New Jersey Pinelands Commission was apprised of a copper wire burn site on the banks of the Great Egg Harbor River by a visitor to the WFWA.

During July 22 & 23, 2009, EPA’s RAB and personnel from the Removal Support Team (“RST”) contractor conducted a removal site assessment. This assessment consisted of a visual inspection of the Site and collection of 31 surface and subsurface soil samples. A 75 foot by 50 foot area was observed to be charred and wire insulation remnants were observed scattered about the Site. The burn area is partially situated on an off-road vehicle trail. Subsurface soil samples were collected from a depth of 6 -12” and from a depth of 12 – 18”. In addition, x-ray fluorescence (“XRF”) was utilized to screen in-situ and collected soil samples. Results from laboratory analyses on the soil samples collected revealed significant concentrations of heavy metals, and PCBs. Heavy metals and their range of concentrations, in parts per million (ppm) are as follows: antimony, 3.7 to 10,000 ppm; arsenic, non-detect (ND) to 56 ppm; copper, 5.7 to 230,000 ppm, and lead, 2.7 to 55,000 ppm. Concentrations of PCBs ranged from ND to 2,100 ppm. All these compounds are listed as a CERCLA hazardous substance. The highest concentrations for each of the hazardous substances exist in the same sample locations.

Results of the removal assessment indicate that area of contamination is approximately 90 feet by 50 feet. The average depth of contamination is one foot which makes the total volume of contaminated soil approximately 200 cubic yards or 300 tons.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The purpose of this removal action is to mitigate the threat of direct contact posed to the public and the environment by soils contaminated with hazardous substances including PCBs and lead. The action will also serve to eliminate the potential for off-site migration contaminants from visitors tracking hazardous substances off-site. The removal action will include the following:

• Mobilization/site set-up/waste characterization for disposal;

• Excavation/load-out of contaminated soil and transport for off-site disposal;
(disposal will be in compliance with EPA’s off-site rule)

• Regrade/backfill as necessary; and

• Demobilization.
(post-removal site control will not be necessary)
2. Contribution to remedial performance

The response measures proposed in this Action Memorandum will address the threat of direct contact to hazardous substances by the public and the release of hazardous substances to sensitive ecosystems. The proposed removal action will contribute to any long term remedial action with respect to the release or threat of release of hazardous substances at the Site.

2.1.2 Response Actions to Date

An action memorandum for remediating the area of contamination was approved on Friday, September 25, 2009 and a task order (T.O.) was issued to an ERRS contractor, AECOM/Earth Tech. A site visit with the ERRS contractor occurred on Tuesday, October 6th. Both the Pinelands Commission and NJDEP were notified of the proposed removal action.

The ERRS contractor mobilized on Monday, October 12, 2009. Due to the soft nature of the sand, modifications to the operation’s plan were required. Two four-wheel drive pickup trucks were utilized to transport one-cubic yard “supersacks” one-half mile to a staging area easily accessible from West Fleming Pike

During the week of October 19, 2009, the ERRS contractor completed the removal of contaminated soil from the burn area. A total of 285 one-cubic yard “supersacks” were filled and transported to the staging area. The RST contractor conducted air monitoring and screened soils with an x-ray fluorescence instrument (XRF). Post excavation samples were screened with an XRF prior to being submitted for laboratory analyses. In addition, a representative soil/waste sample was collected and submitted for disposal analyses, including dioxin.

Due to significant levels of dioxins being detected in the representative soil/waste sample, the nearest disposal facility able to accept this type of waste was in Canada. On January 27, 2010, a waste/material profile was completed and submitted to Bennett Environmental located Oakville, Ontario, Canada. Also, a notification of intent to export hazardous waste material to Canada was submitted to EPA’s Office of Enforcement and Compliance Assurance. Since disposal costs would be significantly higher, a ceiling increase action memorandum was created and submitted for approval.

On February 12, 2010, the ceiling increase action memorandum was approved and the T.O. modified to increase funding so that transportation and disposal of lead and dioxin contaminated soil could be accomplished.

On March 24, 2010, an import permit was received from Environment Canada and on March 25, 2010, EPA’s Office of Enforcement and Compliance Assurance issued an acknowledgment of consent for export of lead and dioxin impacted soil.

T&D began on April 26 and completed on April 29th. A total of 285 one cubic yard supersacks were loaded into twelve roll-off containers. The Site demobilized on April 30th.

The last roll-off container of lead and dioxin impacted soil was delivered to Bennett Environmental on May 17, 2010 which signified this date as the completion date for this removal action.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)
EPA is conducting an investigation and search for potentially responsible parties (“PRPs”) for the Site. CERCLA 104(e) Request for Information Letters will be sent to viable PRPs if they are identified.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Dioxin & Lead	**Soil**	**212.96 tons**	**005460400JJK 005460401JJK 005460402JJK 005460403JJK 005460404JJK 005460405JJK 005460406JJK 005460408JJK 005460411JJK 005460413JJK 005460415JJK 004702250JJK**	**Incineration**	**Landfill**

2.2 Planning Section

2.2.1 Anticipated Activities
None. The removal action has been completed.

2.2.1.1 Planned Response Activities
n/a

2.2.1.2 Next Steps
n/a

2.2.2 Issues
None.

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.