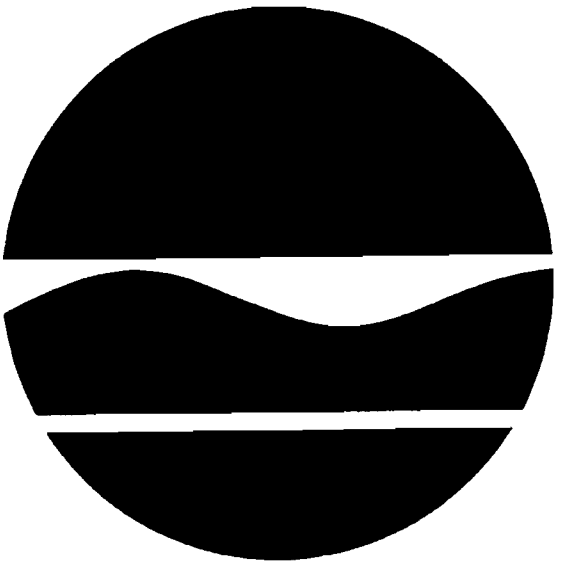
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SHENANGO STEEL SITE
REGISTRY # 915172
BUFFALO (C), ERIE COUNTY

REPORT ON ACTIVITIES
EMERGENCY DRUM REMOVAL ACTION #9097



January, 2002

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* ERIN M. CROTTY, *Commissioner*

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Division of Hazardous Waste Remediation, Region 9
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Reg. Haz. Waste Engineer.

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1.0 INTRODUCTION

The Shenango Steel Site is listed on the New York State Registry of Inactive Hazardous Waste Sites due to the presence of PCB hazardous wastes ~~in~~ found in Site soils. This contamination was primarily due to the illegal disposal of PCB transformer oil which was the subject of a previous NYSDEC removal action in 1994.

This removal action was prompted during Site Remedial Investigation (RI) work which NYSDEC was performing along with their consultant, ERM. During site activities a number of paint and solvent cans were discovered abandoned and emptying inside of a concrete vault located in an area several-hundred feet east of the above-noted PCB spill area (see Attached Memorandum: David Locey to File, October 19, 2000 regarding initial inspection of Drum complaint). A visible floating product from the spilled containers and a strong solvent odor at the opening of the vault were evidence that a number of the containers had spilled into water in the vault. In addition to the many one and five gallon containers inside of the vault, there were three unlabeled drums: two inside of the vault and one outside. In addition, a manhole which had been pumped out during the 1994 removal action had re-filled with petroleum product from an unknown source and required pump-out.

In response to this improper disposal, an emergency drum removal action was initiated on October 27th, 2000, and Op-Tech Environmental Services, Inc. (DEC Response Contractor) was hired to sample, consolidate, over-pack and dispose of the waste materials.

1.1 SITE DESCRIPTION

The Shenango Steel Site was a former steel manufacturing company that operated between the 1950's and the 1980's. The Site is situated northeast of the Union Ship Canal and the former Hanna Furnace Site. The site is generally flat with significant remaining structural foundations, and has various depositions of fill material and abandoned trash and garbage from illegal dumping by unidentified sources. The dumping is a continual problem at this site due to ineffective or non-existent entrance barricades and an apparent lack of enforcement.

Railway tracks were previously used on the site but are either disassembled or buried on site. It would appear from observation of rail ties that railway tracks had at one time ran along the south and north sides of the spill-vault general area and the valve-house vault located approximately fifteen feet east of the spill vault. Water table is close to the surface (-2' to -5' below grade) as determined by observing water levels in the vaults, the manhole and in piezometers and monitoring wells installed for the RI.

1.2 WORK PERFORMED

On November 8th, 2000, Op-Tech began work on the site removing the paint cans, pails and drums from the vault. Cans and pails were set onto polyethylene sheeting (poly) and segregated by type and inventoried. Samples were pulled for compositing for a lab pack disposal. At this time it was noted that additional cans of solvent-based paints and household-type chemicals were discovered at the end of an asphalt roadway which leads from Fuhrmann Boulevard to the Shenango Steel Site. These containers were consolidated into the lab pack of the materials exhumed from the vault. Also, an approximately half-full 150 gallon storage tank of what appeared to be diesel or kerosene fuel-oil was discovered in an area about 250' east of the PCB spill area. The fuel-oil was drained into two drums (for shipping) and the emptied tank was crushed (to prevent refilling by illegal dumpers) and left onsite. The three drums from the vault area were opened and found to contain traces of paint solids and a little water. The empty drums were also left on site. Four, full drums of what appeared to be paint solids with a slight solvent odor were found abandoned

near a steel garage building after ERM (RI Consultant) had bulldozed access areas for monitoring well and piezometer installations. These four drums were sampled for disposal criteria and set alongside the lab pack drums on poly and covered with same.

Contaminants inside of the vault were wicked off of the water surface by absorbent pads and were placed inside of drums. Additional pads were placed into the vault for residual contaminants and were also placed into an excavation that was dug between the vaults to assess potential stand-pipes which, in turn, resulted in nothing more than vertical pipes with no connections below grade. During this excavation it was noted there were apparent horizontal pipes embedded in a concrete block in the western half of the excavation that led eastward into the western side of a valve-vault. The absorbent pads were placed in the excavation water due to a sheen that was seen on the water surface. Pads were also placed into the manhole with petroleum in it, but were placed into a drum without completing the oil clean-out due to oil quantity being greater than anticipated.

During the week of November 15, 2000 ERM installed several monitoring wells in conjunction with the RI. During installation of monitoring well #3 (MW-3), approximately 75' northeast of the vault area, a layer of what appeared to be a thick petroleum product was encountered. Development water had a creosote-type odor and was visibly contaminated with some type of Non-Aqueous Phase Liquid (NAPL). Approximately 75 gallons of development water and another few gallons of purge water generated in December 2000 were drummed and sampled for disposal criteria by DEC on November 16th, 2000. Op-Tech removed this water with the rest of the materials. A complete analysis of the water in this well is forthcoming in the RI report.

On December 4th , 2000, Op-Tech returned to the site. A tracked excavator was brought onsite to perform test digs along the eastern side of the manhole to try and assess a pipe which had been visible during a previous site inspection in the eastern side of the manhole structure. Excavation was difficult and yielded minimal groundwater even though it was cut to a depth of approximately 8'. This was apparently due to the soils being composed of primarily densely packed slag fill overlying clay at about 6' depth. No pipe was found, but a small trickle of water with a slight sheen was encountered at the southernmost part of the dig. Due to the proximity to one of ERM's monitoring wells, no liquid sample was taken. The excavation was backfilled and further assessment of the petroleum issue will be left to further RI work.

To complete the day, it was decided by DEC to dig an additional test pit near MW-3 to assess the NAPL in the well water. A north-south trench was dug approximately 15' east of the well to approximately 4' depth. There, a visible NAPL sheen with a strong creosote-like odor (coal tar?) was seen flowing into the pit with water. Towards the north end of the approximate 15'-long cut, a railroad tie covered with NAPL was exhumed. From observation it would appear that this may have been from a buried railroad bed. No rail was attached to the tie, but it did appear as if it were lain flat as if in it's original disposition for carrying rail. At the completion of this pit excavation, the tracked excavator was decontaminated and removed to Furhmann Boulevard to await pickup the following morning. The pit was left open for examination and sampling by ERM the following day. A rubber-tired backhoe was left on-site to complete the backfill of the trench.

On December 5th , 2000, Op-Tech pumped the petroleum from the Manhole opening using a Vac-Truck and a drum header to accumulate the material into twelve 55-gallon drums. As there was no indication of additional petroleum flowing into the structure, this task was considered complete. ERM collected a sample from the water/NAPL in the trench left open from the day before near MW-3 and Op-Tech backfilled the excavation with the Backhoe. Op-Tech collected all of the materials at the vault and the Manhole and staged them at the asphalt driveway at the Site entrance to await completion of disposal profiling and final disposal. All equipment was demobilized from the Site at this time.

On December 6th , 2000, Op-tech returned to collect approximately 5000 gallons of the lightly-contaminated water from the vault for disposal at the North Tonawanda POTW. As the water table acted quickly to refill the vault, the pump-out was held to one load of water. Absorbent pads were still left in the vault to wick any contaminant residuals which the pump down did not account for.

On March 23rd and March 26th, 2001, Op-Tech returned to the Site to remove the accumulated drums (13 on the 23rd and 11 on the 26th) and ship them to CWM Chemical Services in Lewiston, NY for disposal (see Manifests; Attached). At this time, approximately eight gallons of abandoned motor oil were discovered in 1-gallon containers on the ground adjacent to the drums. These were collected as well for disposal. Op-Tech concluded this project by drumming up the rest of the absorbent pads from the spill-vault and using Railroad ties found on-site to cover the vault opening, thus limiting any future dumping into the open top.

1.3 SAMPLING RESULTS

Tables 1 through 5 provide results for samples taken prior to and during the Removal Action. As the purpose of these samples was for informational purposes and disposal profiling, it should be noted that some of the samples may have been submitted for abbreviated analyses sufficient to describe the waste for disposal. Of the samples taken, only the initial Spill-Vault NAPL sample and the MW-3 development water sample were taken by DEC personnel. The others were samples taken by the Response Contractor for waste profiling and may be biased to provide the disposal facilities with accurate handling information (i.e.: Drum Composites are contamination source samples, not environmental soil or groundwater analyses). It would appear that most of the wastes were contained within the abandoned containers found in and around the Spill-Vault, as the few compounds detected in the vault water and the floating NAPL were significantly less reported values than what was reported for the contaminant source-samples.

1.4 JOB SUMMARY

The objectives set for the Removal Action (as referred to in the Introduction to this report) were generally met. All materials found in and around the vault area were assessed and disposed of as necessary. Although the work did not completely delineate to any extent the possibility of migration in groundwater, the concurrent RI work installed monitoring wells in close enough proximity to the vault area to possibly indicate if any threat exists beyond what has been mitigated through the Removal Action. Also, it is notable that the NAPL contamination at MW-3 illustrates that there are other contaminants of unknown origin which exist. Assessing the unknown source of petroleum in the Manhole was attempted, but no source was found and it appears as if all of the oil accumulated in the manhole was collected upon completion of the Removal Action.

As all imminent threats have either been eliminated or reduced (with respect to the Removal Action work) it is concluded that this work has been completed. Currently, incurred costs for this removal action are a total of $14,106.32 for Response Contractor and $1,944.70 for Laboratory invoices. Leaving a grand total of $16,051.02.

Figure 1

Table 1
Shenango Steel Site #915173/ Removal #9097
Selected Data Analyses for Volatile Organic Compounds (VOCs)

COMPOUND	Spill-Vault NAPL Method 8260 (10/11/00)	MW-3 Dev. Water (TCLP Benzene Only) (11/16/00)	Vault Composite Method 8260 (11/09/00)	Drum #3 Composite A Method 8260 (11/09/00)	Drum #5 Composite C Method 8260 (11/09/00)	Drum #5 Composite D Method 8260 (11/09/00)	Drum #5 Composite E Method 8260 (11/09/00)
Acetone	NA	NA	1957.6(B)	<DL	<DL	<DL	<DL
2-Butanone (MEK)	NA	NA	132.2	<DL	<DL	25965389.3	<DL
Carbon Tetrachloride	<135	NA	<DL	<DL	<DL	<DL	<DL
Trichloroethene	<135	NA	<DL	<DL	<DL	<DL	<DL
Benzene	271	<DL	<DL	<DL	11799177.6	1977860.7	<DL
trans-1,3-Dichloropropene	<135	NA	<DL	<DL	<DL	<DL	<DL
Toluene	ND	NA	173.4	2108776.9	96858272.7	134128803.4	7661667.5
Chlorobenzene	<135	NA	<DL	<DL	<DL	<DL	<DL
Ethylbenzene	726	NA	<DL	<DL	12572898.8	24252458.6	5047520.4
Styrene	<135	NA	<DL	<DL	<DL	<DL	<DL
1,3,5-Trimethylbenzene	NA	NA	<DL	2162531.8	10735780.6	13407831.7	1827163.5
1,2,4-Trimethylbenzene	NA	NA	<DL	5972883.7	30115776.5	36220354.5	4925725.8
Napthalene	NA	NA	<DL	<DL	7145187.8	6787485.8	<DL
n-Propylbenzene	NA	NA	<DL	<DL	5544520.2	6831783.3	<DL
Xylene (total)	5620	NA	<DL	3731316.3	22837630.0	109408114.0	27870532.0

ALL VALUES expressed in ug/L = Parts Per Billion (PPB).
"ND" indicates that the compound was not detected by instrument.
"NA" indicates that the compound was not applicable for this analysis.
"DL" indicates instrument detection limit
"B" denotes that the compound was also found in laboratory blanks.

Table 2
Shenango Steel Site #915173/ Removal #9097
Sampling Results - Metals

ANALYTE	Composite of 4 Drums of Paint TCLP Metals (11/9/00)	Drum #3 Composite A TCLP Metals (11/9/00)	Drum #6 Composite F TCLP Lead Only (11/9/00)	MW-3 Dev. Water TCLP Lead only (11/16/00)
Arsenic	<0.005	<0.005	NA	NA
Selenium	0.016	0.008	NA	NA
Cadmium	0.015	0.017	NA	NA
Chromium	0.129	0.007	NA	NA
Barium	0.138	0.019	NA	NA
Silver	<0.005	<0.005	NA	NA
Lead	2.32	0.078	0.035	0.010
Mercury	<0.002	<0.002	NA	NA

ALL VALUES expressed in ug/L = Parts Per Billion (PPB).
"NA" indicates that the Analyte was not applicable for this analysis.

Table 3
Shenango Steel Site #915173/ Removal #9097
Sampling Results - PCBs

AROCHLOR	Spill-Vault NAPL Method 8082 (10/11/00)	Drum #4 Composite B (11/09/00)	MW-3 Dev. Water (11/16/00)
1016	ND	<DL	<DL
1221	ND	<DL	<DL
1232	ND	<DL	<DL
1242	ND	<DL	<DL
1248	ND	<DL	<DL
1254	ND	<DL	<DL
1260	ND	<DL	<DL

ALL VALUES expressed in ug/L = Parts Per Billion (PPB).
"ND" indicates that the compound was not detected by instrument.
"DL" indicates instrument detection limit

Table 4
Shenango Steel Site #915173/ Removal #9097
Sampling Results -DOH 310-13 Method

Compound	Spill-Vault NAPL (10/11/00)	Drum #6 Composite F (150 Gal. Tank Contents) (11/16/00)
Kerosene	ND	<DL
Fuel Oil #2	ND	710366.0
Fuel Oil #4	ND	NA
Fuel Oil #6	ND	NA
Diesel	ND	NA
Gasoline	ND	ND
Lubricating Oil	ND	<DL
Unknown Hydrocarbons	NA	<DL

ALL VALUES expressed in ug/ml = Parts Per Million (PPM).
"ND" indicates that the compound was not detected by instrument.
"NA" indicates that the compound was not applicable for this analysis.
"DL" indicates instrument detection limit

Table 5
Shenango Steel Site #915173/ Removal #9097
Sampling Results - Ignitability

Sample ID	Flashpoint
MW-3 Dev. Water (11/16/00)	Negative, No Flash to 140F/60C
Drum #3 Composite A (11/09/00)	Negative, No Flash to 140F/60C
Drum #4 Composite B (11/09/00)	Flash at 70F/21C
Drum #5 Composite C (11/09/00)	Flash at 70F/21C
Drum #5 Composite D (11/09/00)	Flash at 70F/21C
Drum #5 Composite E (11/09/00)	Negative, No Flash to 140F/60C
Drum #6 Composite F (11/09/00)	Flash at 135F/57C

Flashpoint for Ignitability Characteristic for Hazardous Waste = <140F

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999

John P. Cahill
Commissioner

OCT 31 2000

M E M O R A N D U M

TO: Peter J. Buechi, P.E.; Regional Hazardous Waste Engineer
FROM: David S. Szymanski
SUBJECT: Request for Removal Action

DATE: October 27, 2000

EMERGENCY REMOVAL ACTION REQUEST FOR THE FOLLOWING LOCATION:

Name: Shenango Steel
Address: Fuhrmann Blvd., Buffalo (C)
County : Erie Region: 9 Site Code #: Haz. Spill #9097; Registry # 915172

Description of Incident: Approximately 30-40 one to five gallon containers of acrylic laquer thinners, urethanes and unknowns were discovered abandoned inside of a water and LNAPL filled vault at the former Shenango Steel property during DEC field work. In addition 3 -55 gallon drums were found: two inside the vault and one outside on the ground. No markings on the drums though the one on the outside of the vault appears to have material in it. Also discovered at the Site was a volume of oil that has resurface inside of a manhole which had been cleaned out during a previous Removal Action in 1994.

Reason for Emergency Action:

X Threat to the Environment	___Protection of a Water Supply	
X Protect Public Safety	X Public Health Hazard	X Clean up Spill

Explanation of Work Proposed to be Done by a Response Contractor: Remove, identify and overpack drums and containers for disposal. Sample and dispose of the contaminated water/ petroleum/NAPL phase inthe vault and at the manhole, and place appropriate obstructions to ingress at both locations.

Estimated Cost: $5,000.00 - 10,000.00 (higher estimate due to unknown quantities and disposal pricing. Analytical data is pending).

Date Work Will Begin: 10/30/00 Estimated Date of Completion: 12/01/00

Responsible Party(ies):
Name: Nicholas Sherwood, Sherland Incorporated (Owner)
Address: 27 Forestview Drive, Depew (V), NY 14043

Has BECI been informed of this situation? [X]Yes (verbally) [ ]No
BECI Contact:
Name: Dan Sullivan Telephone: (716) 851-7061
Location: BECI, Buffalo office

If appropriate, attach BECI response

If Yes, has BECI undertaken investigation? [ ]Yes [X]No

Has the Responsible Party been notified and given an opportunity to correct the situation?
[X]Yes [ ]No

Attach a copy of the PRP notification and the PRP's response if applicable:
Steve Pollack (Attorney for Owner) telephoned on October 13, 2000 and declined initiating work for his client due to his client's dispute over property ownership.

Who will oversee and/or inspect the work requested?
NYSDEC Region 9 DER
Who will review and authorize payments for the work requested?
NYSDEC Region 9 DER

Based on my technical review of the facts, I believe that an emergency action is warranted. (For purposes of this document, an "emergency" means a spill, or other event or condition, whether natural or human-made, as the result of which a release or threat of release of hazardous waste presents an immediate threat to life, health, property, or natural resources:
6 NYCRR 375-1.3 [f].)

By: David S. Szymanski Date: 10/27/'00
Originator

Approved for Removal Action

Date: 10/27/00
RHWRE

If not approved, action taken:

cc:

Capt. Gary Bobseine
NYS Department of Environmental Conservation
Division of Law Enforcement
Bureau of Environmental Conservation Investigations
270 Michigan Avenue
Buffalo, NY 14203
(716) 851-7036

William Zeppetelli
NYSDEC
Division of Environmental Remediation
Bureau of Construction Services
50 Wolf Rd.
Albany, NY

James Malcolm, Project Manager
NYSDEC
Division of Environmental Remediation
Bureau of Western Remedial Action, Section B
50 Wolf Rd.
Albany, NY

From: David Locey
To: James Malcolm
Date: 10/19/00 2:52PM
Subject: Re: Shenango Steel Mold

Dave Szymanski and I will be meeting the spill contractor at the site tomorrow to size up the job. I will let you know when we schedule the work.

Dave and I were thinking that we might bring a backhoe to the site, to pry the lid off the one vault, and try a test pit between the vaults were we saw the cut, vertical pipes. We might also try a test pit near the manhole and determine were the pipe leads.

>>> James Malcolm 10/19/00 14:04 >>>
Dave,
John Sheehan,ERM and I have prepared the following schedule for the remainder of the RI field work.

1. Monitoring well installation & miscellaneous sampling to be performed from 11/13/00 to 11/17/00.

2. Groundwater sampling to be conducted from 11/27/00 to 12/01/00.

3. Aquifer testing to be performed from 12/04/00 to 12/08/00.

I was hoping we could coordinate the remaining RI work with you such that ERM and I would be on-site during the waste disposal activities. Let me know if this will be a problem and I will alter our schedule if necessary.

Thanks again for your help,
Jamie

CC: David Szymanski

From: James Malcolm
To: Doster, Martin
Subject: Re: Shenango Steel Mold (No. 9-15-172)

Marty,

To be specific, we are debating the issue of NAPL in groundwater and not petroleum contaminated soil. As I recall, you had requested more information regarding the chemical nature of the NAPL before the project could be transferred to Region 9 Spills. If test pits and observations are sufficient as you state in your e-mail, then Dave Szymanski should have the information to make that determination. In addition, Andrew and I discussed the matter this morning and we are both confident that sufficient information exists in the RI to indicate that the contamination is not related to hazardous waste and is petroleum in nature. Dave Locey has a copy of the RI if you would like to review the analytical data.

We are willing to take two additional steps to determine the nature and extent of the contamination and finally resolve this matter. First, I expect to perform test pitting on August 20 at the Shenango site in the vicinity of MW-3 and MH-1. We will attempt to determine the extent of the NAPL contamination near MW-3 and I would like to have a representative from Region 9 Spills present during these activities. Secondly, I am proposing to sample the NAPL collected from the test pit near MW-3 for forensic fingerprinting analysis. This information in combination with that obtained last year should be sufficient for your Spills group to adequately respond to the NAPL contamination.

Therefore, the NAPL issue will be removed from the RI/FS for Shenango Steel and a note will be made regarding the transfer of responsibility for the matter from the Superfund program to Region 9 Spills.

Jamie

CC: Locey, David; Szymanski, David