

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT**

I. HEADING

DATE: January 25, 2000

SUBJECT: **POLREP for the Valleycrest (North Sanitary) Landfill Site, Dayton, Montgomery County, Ohio.**

FROM: Steve Renninger, OSC, USEPA, Region 5 ERB, Cincinnati, OH

TO: K. Mould, USEPA, OSWER, Washington D.C (VIA LAN)
 R. Karl, USEPA, ERB Chief, Chicago, IL (VIA LAN)
 J. El-Zein, USEPA, Chief, RS-1, Grosse Ile, MI (VIA LAN)
 C. Ropski, USEPA, ESS, Chicago, IL (VIA LAN)
 L. Rosales, USEPA, Office of Public Affairs, Chicago, IL (VIA LAN)
 P. Felitti, USEPA, ORC, Chicago, IL (VIA LAN)
 G. Powell, USEPA, ERT, Cincinnati, OH (VIA LAN)
 D. Mickunas, USEPA, ERT, Edison, NJ (VIA LAN)
 T. Williams, USEPA, RPM, Chicago, IL (VIA LAN)
 S. Thorneloe, USEPA, ORD, RTP, NC (VIA LAN)
 M. Laur, USEPA, ORD, RTP, NC (VIA LAN)
 M. Simon, USEPA, ORD, Cincinnati, OH (VIA LAN)
 J. Crawford, Ohio EPA OSC, Dayton, OH (jim.crawford@epa.state.oh.us)
 K. Kollar, Ohio EPA OSC, Dayton, OH (kurt.kollar@epa.state.oh.us)
 S. Shane, Ohio EPA, DERR, Columbus, OH (scott.shane@epa.state.oh.us)
 K. Clouse, Ohio EPA, DERR, Columbus, OH (kevin.clouse@epa.state.oh.us)
 R. Frey, Ohio Department of Health, Columbus, OH (rfrey@gw.odh.state.oh.us)
 B. Ring, Coord., Dayton Regional Hazmat Team, Dayton, OH (hazdude@aol.com)
 P. Alexander, Dist Chief, Dayton Fire Dept, Hazmat Supervisor (937) 443-4664
 T. Wilson, Regional Air Pollution Control, Dayton, OH (937) 225-3486
 D. Alig, Fire Chief, Riverside Fire Department, Dayton, OH (937) 252-8052

POLREP #: POLREP #12 with attached photograph of landfill gas enclosed flare system and drum removal grid chart

II. BACKGROUND

Site Number	B543
Response Authority	CERCLA Time Critical Removal, PRP Removal
NPL Status	NPL listed 1994, Currently in RI phase with Ohio EPA
Latitude	39/47'14" North
Longitude	84/09'08" West
State Notification	Ohio EPA notified
Start Date	June 23, 1998 (Landfill Gas Abatement System) November 11, 1998 (Drum Removal)
Completion Date	To be determined

III. SITE INFORMATION

A. Incident Category

CERCLA incident category: PRP Time Critical Removal at an NPL site

B. Site Description

1. Site location and background

See previous POLREPS.

IV. REMOVAL INFORMATION

A. Situation

1. Current situation

Pursuant to a USEPA Administrative Order by Consent (AOC) dated on September 10, 1998, Valleycrest Drum Removal Action Group (VDRAG) contractors initiated work on a landfill gas (LFG) abatement system in June, 1998. Six perimeter LFG extraction systems have been installed to date and the installation of a LFG manifold and enclosed flare is two-thirds complete. VDRAG contractors initiated a drum removal in Disposal Area 5 in November, 1998. To date, 8,411 drums have been removed from Disposal Area 5 (west side of site), which represents approximately 44% of Disposal Area 5.

2. Removal activities to date (since last POLREP)

- During the month of September 1999, VDRAG contractors excavated Rows 2 through 6 (16 grids) to a depth varying from 20-25' below ground surface (BGS). A total of 1,382 drums were excavated from these rows, to make a grand total of 3,609 drums excavated to date from Disposal Area 5. The VDRAG contractors collected 153 samples from approximately 21,500 cubic yards of excavated material from Rows 2 through 6. Approximately 3,500 cubic yards were found to be contaminated with TCLP TCE (as high as 50 ppm), TCLP lead (as high as 33 ppm), or PCBs (as high as 100 ppm). VDRAG completed sampling the grid sidewalls Rows 2 through 6 and will begin post excavation sampling in the bottom of Rows 2 through 6 next month. USEPA split all samples with the PRPs. The VDRAG contractors stockpiled approximately 4,200 cubic yards of clean backfill in the northwest corner of Area 5. CRA is working on a draft backfill strategy for Rows 2 through 6. USEPA set up an air monitoring contingency plan with a quarter-mile radius around the site in case of an on-site fire. The plan calls for pre-staged air monitoring points depending on the wind direction. The Montgomery County Health Department (MCHD) completed residential well sampling from twelve residents not connected to city water which are located within a half mile radius of the site. MCHD did not observe any elevated VOCs or metals in their drinking water. VDRAG contractors bulked into two roll-off boxes 131 drums containing solids which were ignitable and contained elevated concentrations of PCBs. The two roll-off boxes will be sent for off-site disposal in October 1999. USEPA ERT was on site with the FTIR instrument to conduct air sampling on the northern perimeter of Disposal Area 5. All thermocouples registered below 100°F in the stockpiles in Disposal Area 5. CRA completed the third round of interim groundwater sampling. All landfill gas compliance probes are in compliance. Four additional compliance probes were installed in the northern perimeter of Disposal Area 1. VDRAG transported 1,628 gallons of hazardous liquid to Waste Management, Sauget, Illinois, for disposal.
- During the month of October 1999, VDRAG contractors completed post excavation floor sampling in Rows 2 through 6. USEPA split post excavation samples for confirmatory analysis. The sidewall sample on Grid E-2 (west) and the floor samples in Grid E-3 (east and west), Grid E-4 (west), Grid E-5 (east) and Grid E-6 (east) revealed TCE contamination. VDRAG contractors excavated an additional two feet into the sidewall of Grid E-2 and two feet into the floor of Grid E-3 (east and west), Grid E-4 (west), Grid E-5 (east) and Grid E-6 (east), and then re-sampled each area. VDRAG contractors began excavating drums and soil/debris in Row 7 down to 16' BGS (on 10-5-99). The stockpiles of excavated soil/debris from Rows 2 through 6 were covered with liners to

prevent emissions. VDRAG contractors constructed two new staging pads and have plans for two more in Disposal Area 1. At least one staging pad will be used to stage TCE-contaminated soil/debris. This material may eventually be used by the VDRAG for on-site treatment. All thermocouple temperature probes in the stockpiles were around 100°F. All compliance probes are in compliance except for two of the four newly installed compliance probes in Disposal Area 1, which show methane concentrations in the 40% to 50% range. Three additional gas extraction wells will be installed in the northern perimeter of Disposal Area 1 and tied into the manifold system of the enclosed combustor flare to correct the elevated methane readings. The VDRAG agreed to a systematic grid system to install groundwater monitoring wells as part of the RI/FS, as overseen by Ohio EPA. In addition, VDRAG will conduct waste delineation at the site perimeter. Two roll-off boxes containing solids contaminated with PCBs from 131 drums were transported for disposal to Waste Management, Port Arthur, Texas. Five roll-off boxes containing 686 shredded drums and contents were transported for off-site disposal to Environmental Quality's (EQ), Wayne Disposal Landfill, in Belleville, Michigan.

- During the month of November 1999, VDRAG contractors backfilled Rows 2 through 6. Clean fill was backfilled to an elevation of 750', then non-contaminated soil/debris (From Rows 2 through 6) was backfilled to an elevation of 770' (one foot BGS), and then clean material was filled in the remaining one foot. VDRAG contractors terminated nightly fire watch and demobilized the liquid nitrogen tanks. All thermocouple temperature probes were showing low readings. VDRAG contractors excavated soil/debris from Grid H-9 at a depth between 750' and 756' for use in the VE Treatability study. USEPA split samples with the VDRAG for independent analysis. USEPA Michelle Simon and Battelle contractor to oversee treatability study. VDRAG completed waste delineation test trenching at the site perimeter as part of the RI/FS. VDRAG contractors begin gas piping/enclosed flare construction. A total of thirteen roll-off boxes (260 cubic yards) of soil/debris contaminated with PCBs greater than 50 ppm and one roll-off box containing 88 shredded drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan. A total of 18,400 gallons of non-hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal.
- During the month of December 1999, VDRAG contractors installed thermocouples at a 15' BGS depth in the middle of each grid excavated in Rows 2 through 6. The thermocouples were monitored three times a week and temperatures stabilized at 70°F. VDRAG contractors began full excavation to 16' BGS in Rows 7 and 8. Approximately 6,273 drums have been excavated from Disposal Area 5. VDRAG contractors constructed two additional staging pads in Disposal Area 5. Ohio EPA Solid Waste issued violations to the VDRAG for improper solid waste/construction debris stockpiling. VDRAG decided to remove the hard fill material off site. VDRAG contractors continued gas piping/enclosed flare construction. A total of nine roll-off boxes (180 cubic yards) of soil/debris contaminated with TCLP lead excavated from Rows 2 through 6 and three roll-off boxes containing 402 shredded drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan.
- From January 3 through 19, 2000, VDRAG contractors completed excavation down to 16' BGS in Rows 7 through 8. VDRAG plans to excavate Row 9 an additional three feet. Row 9 is currently at a depth of approximately 13' BGS. A total of 8,411 drums have been excavated to date from Disposal Area 5. One roll-off box containing shredded drums and debris failed for ignitability and disposal options are being researched by the VDRAG. VDRAG contractors completed sampling stockpiled excavated soil/debris from Rows 7 and 8 on staging pad #2. The first 12 out of 24 samples collected showed high levels of TCLP TCE. Staging pad #5 and #6 will be sampled next week. Ohio EPA gave the VDRAG until January 14 to remove the hard fill stockpiled in the northwestern portion of Area 5. CRA Julian Hayward will be replaced by Ian Richardson as project manager for CRA. The enclosed flare combustor was installed and is 2/3 completed. The flare has been running 5 days a week. The goal is to open all vents, run 24 hours/7 days a week, and to be able to fine tune the methane between 22% and 25%. Stack testing will be conducted in March and the temperature of the flame will be 1,400°F. Digital readings on the flare will indicate flare temperature and flow rate. The fourth round of interim groundwater sampling will be conducted the week of January 24th. USEPA analyzed two piezometer water samples collected from Grid I9 and J9. Analysis showed the following VOCs in exceedance of their maximum contaminant levels (MCLs): 1,1,1-TCA as high as 1,100 ppb (MCL of 200 ppb); cis-1,2-DCE as high as 35,000 ppb (MCL of 70 ppb); ethylbenzene as high as 2,300 ppb (MCL of 700 ppb); total xylenes as high as 20,300 ppb (MCL of 10,000 ppb); toluene as high as 5,300 ppb (MCL of 1,000 ppb); TCE as high as 6,800 (MCL of 5 ppb); and vinyl chloride as high as 13,000 (MCL of 2 ppb). CRA is continuing the VE Treatability study. Ohio EPA is

currently in review of the final RI/FS draft Work Plan submitted by CRA. A total of thirteen roll-off boxes containing 1,849 shredded drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan. A total of 38,800 gallons of non-hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal. A total of eleven roll-off boxes (220 cubic yards) containing soil/debris contaminated with PCBs and TCE were transported to Waste Management, in Model City, New York, for disposal.

B. Next Steps

- SCS Engineers to install an enclosed flare system for landfill gas abatement system. All LFG systems will be manifolded into the enclosed flare.
- Continue off-site disposal of bulked drums.
- Conduct full excavation to the limit of waste from grids in Rows 7 through 11.
- PRPs to explore on-site treatment using vapor extraction of TCE-contaminated soil/debris material. Preliminary bench-scale testing is being conducted in CRA laboratory.
- Continue weekly update meetings with local agencies.

C. Key Issues

- On September 16, 1999, a public meeting was conducted at Stebbins High School.
- On September 27, 1999, USEPA conditionally approved the Vapor Extraction Treatability Study Work Plan.
- On October 10, 1999, USEPA approved the VDRAG the use of staging piles on the site.
- A total of 8,411 drums have been removed to date from 36 out of 82 (44%) 50' by 50' grids in Disposal Area 5. Of those drums excavated, 1,382 were from Rows 2 through 6, and 7,029 from Rows 7 through 9.
- Subsurface drum wastestreams are potentially impacting local groundwater near City of Dayton well fields.

V. COST INFORMATION (estimated as of January 15, 2000)

Personnel	Budget	Used to Date	Remaining
START (TDD #S05-9806-005)	\$200,000	\$149,971	\$ 50,029
USEPA	\$150,000	\$100,000	\$ 50,000
TOTALS	\$350,000	\$249,971	\$100,029

VI. DRUM INFORMATION

- See attached Disposal Area 5 - Drum Excavation Grid Table.

VII. DISPOSAL INFORMATION (as of January 18, 2000)

- 55 roll-off boxes containing bulked solid-drummed waste from 5,563 drums have been disposed by microencapsulation at Environmental Quality's, Wayne Disposal Landfill, in Belleville, Michigan.
- 290 roll-off boxes (5,800 cubic yards) containing TCE-contaminated soil/debris have been disposed by microencapsulation at Environmental Quality's, Wayne Disposal Landfill, in Belleville, Michigan.
- 131 drums containing PCB solids were transported into two roll-off boxes to ChemWaste Management, in Port Arthur, Texas, for proper disposal.
- 13 roll-off boxes (260 cubic yards) containing PCB-contaminated soil/debris have been transported to Environmental Quality's, Wayne Disposal Landfill, in Belleville, Michigan.
- 11 roll-off boxes (220 cubic yards) containing soil/debris contaminated with PCBs and TCE were transported to Waste Management, in Model City, New York, for disposal.
- 9 roll-off boxes (180 cubic yards) containing TCLP lead-contaminated soil/debris have been transported to Environmental Quality's, Wayne Disposal Landfill, in Belleville, Michigan.
- A total of 1,628 gallons of hazardous liquids were transported to Waste Management, Sauget, Illinois, for disposal.
- 1 drum containing PCB-contaminated liquid (55 gallons) was transported to ChemWaste Management, in Port Arthur, Texas, for proper disposal.
- 14 drums containing sulfides were transported to City Environmental, in Detroit, Michigan, for proper disposal.
- 142,076 gallons of decontamination water has been disposed by proper treatment at City Environmental and Perma-Fix disposal facilities.