

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT**

I. HEADING

DATE: May 30, 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 (mould.kevin@epa.gov)
R. Karl, USEPA, ERB Chief, Chicago, IL (karl.richard@epa.gov)
J. El-Zein, USEPA, Chief, RS-1, Grosse Ile, MI (el-zein.jason@epa.gov)
C. Ropski, USEPA, ESS, Chicago, IL (ropski.carol@epa.gov)
L. Rosales, USEPA, Office of Public Affairs, Chicago, IL (rosales.leo@epa.gov)
C. Kawakami, USEPA, ORC, Chicago, IL (kawakami.cynthia@epa.gov)
G. Powell, USEPA, ERT, Cincinnati, OH (powell.greg@epa.gov)
D. Mickunas, USEPA, ERT, Edison, NJ (mickunas.dave@epa.gov)
T. Williams, USEPA, RPM, Chicago, IL (williams.thomas@epa.gov)
M. Laur, USEPA, ORD, RTP, NC (laur.michele@epa.gov)
M. Simon, USEPA, ORD, Cincinnati, OH (simon.michelle@epa.gov)
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 #13 with attached photographs of: (1) VDRAG contractors excavating drums in Row 7; (2) VDRAG contractors conducting stack testing on the enclosed flare; and (3) the drum removal grid chart for Area 5.

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 - RI/FS concurrent
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 and manifolded into an enclosed flare. VDRAG contractors initiated a drum removal in Disposal Area 5 in November, 1998. To date, 14,178 drums have been removed from Disposal Area 5 (west side of site), which represents approximately 55% of Disposal Area 5.

2. Removal activities to date (since last POLREP)

- During the month of January 2000, VDRAG contractors completed the excavation in Rows 7 through 8 to a depth of 16' BGS, and Row 9 an additional three feet from 13' BGS to 16' BGS. One roll-off box containing shredded drums excavated from Rows 7 through 9, was sampled and analytical results revealed the contents within the rolloff box failing for ignitability. VDRAG contractors completed sampling stockpiled excavated soil/debris from Rows 7 through 9 on staging pads #2, 5, and 6. All 24 samples collected from staging pad #2 showed elevated levels of TCLP TCE, with an average TCLP TCE concentration of 5.1 ppm and a high reading of 15 ppm TCLP TCE. CRA Julian Hayward was replaced by Ian Richardson as project manager for CRA. CRA continued to conduct the Vapor Extraction Treatability study. Ohio EPA in review of the final RI/FS draft Work Plan submitted by CRA.

The enclosed flare combustor was installed and 3/4 completed. A few sensor problems and problems related to the LEL and oxygen detector were being experienced. The flare was run for 18-hour periods to allow for stabilization. The goal was to open all landfill gas 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 May and the temperature of the flame will be 1,400°F. USEPA will oversee the stack testing. Compliance probes on leg 1 of the LFG system (1-a, 1-c, and 1-d) were found to be out of compliance with methane readings greater than 5%. VDRAG contractor (SCS Engineers) to explore how to fix this problem.

The fourth round of interim groundwater sampling was conducted. USEPA analyzed two piezometer water samples collected from Grid I9 and J9. Analysis showed the following VOCs in exceedance of 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). These results are consistent with the initial Row 9 piezometer water sampling conducted in June 1999.

A total of nineteen roll-off boxes containing 2,755 shredded, excavated drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan. A total of 35,930 gallons of non-hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal.

A total of 1,625 gallons of hazardous liquid was transported to ChemWaste Management, Port Arthur, Texas for disposal by incineration. A total of fourteen roll-off boxes (280 cubic yards) containing soil/debris contaminated with PCBs and TCE were transported to ChemWaste Management, in Model City, New York, for disposal.

- During the month of February 2000, VDRAG contractors continued to monitor the thermocouples placed in Rows 2 through 6. No elevated temperatures were experienced. VDRAG contractors removed drums and soil/debris waste in Rows 7 through 9 to the bottom of the waste (or till layer). The bottom of the waste is approximately 24 to 26 feet BGS. Perimeter air monitoring utilizing the Voyager units did not show any elevated levels of VOCs. Analytical results from staging pad #5 showed 3 out of 38 soil/debris samples exceeding TCLP TCE, with an average of 0.97 ppm TCLP TCE and a high of 1.2 ppm TCLP TCE. Analytical results from staging pad #6 showed 0 out of 27 samples exceeding any TCLP or PCB parameters. VDRAG contractors sampled soil/debris staging pad #3. There is a large concrete mass in grids I-7, I-8, and J-8. VDRAG contractors will remove the concrete mass. Additional drum and soil/debris waste is located beneath the concrete mass. Four gas cylinders were excavated from Row 8 and will be disposed off-site.

VDRAG contractor is operating the enclosed flare 10 to 12 hours per day. TGP1b-d and TGP1b-c continued to show methane percentages greater than 5%. VDRAG stated that the system may switch to operating on a 6 hours 'on' and 6 hours 'off' routine.

A total of thirteen roll-off boxes containing 1,703 shredded, excavated drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan. A total of 17,600 gallons of hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal.

- During the month of March 2000, VDRAG contractors completed excavation activities to the limit of waste in Rows 7 through 9. VDRAG contractors completed post excavation sampling in Rows 7 through 9. VDRAG contractors sampled soil/debris staging pad #4. On March 15, a total of 12,197 drums had been excavated to date from Area 5. VDRAG contractors constructed staging pad #7. Three roll-off boxes (which contained shredded, excavated drums) showed analytical results with exceedences in TCLP TCE and PCBs. One roll-box has a TCLP TCE concentration of 980 ppm and a PCB concentration of 56 ppm. Analytical results from staging pad #3 showed 26 out of 36 samples contaminated with elevated levels of TCLP TCE. VDRAG contractors began to remove the concrete obstruction in grids I-7, I-8, and J-8. A thick layer (approximately 12 feet in some spots) of concrete is located in grids I-7, I-8, and J-8. Drums are located within the concrete layer.

USEPA received the final Vapor Extraction Treatability Study report from CRA. Preliminary evaluation of the study indicated that vapor extraction may work on decreasing the elevated TCLP TCE concentrations in the soil/debris material.

The enclosed flare system ran on a 6 hours 'on' and 6 hours 'off' schedule at the beginning of the month and was then switched to a 3 hours 'on' and 3 hours 'off' schedule. TGP1b-d continued to show methane percentages greater than 5% at the beginning of the month and then decreased below 5% near the end of the month. USEPA submitted final comments to the stack testing protocol to CRA. CRA requested to utilize Method 25 instead of Method 18 for stack testing the gas emitting from the enclosed flare.

A total of four roll-off boxes containing 358 shredded, excavated drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan. A total of 45,400 gallons of hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal. A total of 45 drums of TCE/ignitable waste was transported to EQ's, Wayne Disposal Landfill, in Belleville, Michigan. A total of four roll-off boxes containing 492 shredded, excavated drums and contents contaminated with TCE/PCB were transported to ChemWaste Management, in Model City, New York, for disposal. One roll-off box containing 150 shredded, excavated drums and contents contaminated with TCE/ignitable waste was transported to ChemWaste Management, Sauget, Illinois, for disposal.

- During the month of April 2000, VDRAG contractors began backfilling in Rows 7 and 8 per protocol. VDRAG contractors extracted the clean soil/debris 'cells' from stockpile staging pad #3 for use as backfill in Rows 7 and 8. Analytical results from staging pad #4 indicated 36 out of 36 soil/debris samples were contaminated. Five samples were contaminated with elevated levels of TCLP TCE (as high as 52 ppm) and PCBs (as high as 160

ppm). The other 31 samples were contaminated with elevated levels of TCLP TCE (as high as 62 ppm). VDRAG contractors continued to remove the concrete obstruction in grids I-7, I-8, and J-8. Drums were encountered during the concrete removal. As of April 19, 2000, approximately 12,371 drums had been removed from Area 5. Stockpile staging pad #1 will be re-covered with a 16-mm poly liner by the end of the month.

A Treatability Study meeting between USEPA and the VDRAG was tentatively scheduled for April 19, but was canceled by the VDRAG and will be rescheduled in May or June 2000.

The enclosed flare system operated on a 3 hours 'on' and 3 hours 'off' schedule, then switched to a 2 hours 'on' and 4 hours 'off' schedule in the middle of the month, and then switched to a 1.5 hours 'on' and 4.5 hours 'off' schedule which appears to be solving the past methane problems in TGP1b-d. The enclosed flare system is operating at approximately 100 cubic feet per minute. TGP1b-d methane percentages consistently began showing less than 5% on April 19. USEPA verbally approved the stack testing plan. Stack testing on the enclosed flare is tentatively scheduled for mid-May 2000.

A total of 25,800 gallons of hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal. A total of 52,100 gallons of non-hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal. A total of ten roll-off boxes containing soil/debris contaminated TCE/PCB were transported to ChemWaste Management, in Model City, New York, for disposal.

- During the month of May 2000, VDRAG contractors completed backfilling in Rows 7 and 8 per USEPA-approved protocol. VDRAG contractors completed the removal of the concrete mass obstruction in grids I7, I8, and J8 to the limit of waste, and the associated drums and soil/debris mixed within the obstruction. VDRAG contractors initiated full drum excavation activities within 5 grids in Row 10. Excavation will initially be completed to a depth of approximately 12 to 15 feet below ground surface. Numerous drums have been found and many are containing liquid contents. Analytical results from a USEPA-split liquid composite drum sample revealed the following: PCE at 2,810 ppm (limit of 0.7 ppm); TCE at 90,000 ppm (limit of 0.5 ppm); ethylbenzene at 24,900 ppm; toluene at 3,720 ppm; and xylenes at 106,000 ppm. Analytical results from a USEPA-split solid composite drum sample revealed the following: TCLP PCE at 1.0 ppm (limit of 0.7 ppm) and TCLP TCE at 100 ppm (limit of 0.5 ppm). Post excavation sampling was completed in grids I-7, H-8, I-8, J-8, I-9, and J9. As of May 23, 2000, approximately 14,178 drums had been excavated and removed from Area 5.

The enclosed flare system operated on a 2 hours 'on' and 4 hours 'off' schedule. On May 18, 2000, stack testing was conducted on the enclosed flare. All compliance probes remain at less than 5% methane.

A total of 31,600 gallons of non-hazardous wastewater was transported to Perma-Fix, in Dayton, Ohio, for treatment and disposal. A total of 31 roll-off boxes containing soil/debris contaminated TCE/PCB were transported to ChemWaste Management, in Model City, New York, for disposal. A total of fifteen roll-off boxes containing 1,483 shredded, excavated drums and respective contents were transported for off-site disposal to EQ's, Wayne Disposal Landfill, in Belleville, Michigan.

B. Next Steps

- Conduct a public meeting on June 20, 2000 with USEPA and Old North Dayton representatives.
- SCS Engineers to continue operation of the enclosed flare landfill gas system. All LFG system vents and piping have been manifolded into the enclosed flare.
- Continue off-site disposal of bulked drums containing solid and liquid hazardous waste.
- Conduct full excavation to the limit of waste from Area 5 grids in Rows 10 and 11.
- Conduct a meeting with USEPA and VDRAG to discuss on-site treatability options and to present the data from the vapor extraction treatability study. Bench-scale vapor extraction testing was conducted by CRA.
- Continue weekly update meetings with local agencies every Wednesday at 1300 hours.

C. Key Issues

- A total of 14,178 drums have been removed to date from 45 out of 82 (55%) 50' by 50' grids in Disposal Area 5. Of those drums excavated, 1,382 were excavated from Rows 2 through 6, and 12,796 were excavated from Rows 7 through 10.
- Subsurface drum wastestreams are potentially impacting local groundwater near City of Dayton well fields.
- A meeting between USEPA and VDRAG management, lawyers, and technical personnel was conducted on May 11, 2000, in Chicago, Illinois, to discuss removal activities at the site.

V. COST INFORMATION (estimated as of May 13, 2000)

Personnel	Budget	Used to Date	Remaining
START (TDD #S05-9806-005)	\$225,000	\$169,225	\$ 55,775
USEPA	\$150,000	\$125,000	\$ 25,000
TOTALS	\$375,000	\$294,225	\$ 80,775

VI. DRUM INFORMATION

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

VII. DISPOSAL INFORMATION (as of May 23, 2000)

Wastestream	Quantity	Containment Migration Control	Disposal Option	Disposal Facility
Bulked solid drummed waste	102 roll-off boxes (10,013 drums)	N/A	Microencapsulation	Environmental Quality Belleville, Michigan.
TCE-contaminated solid/debris	290 roll-off boxes (5,800 cubic yards)	N/A	Microencapsulation	Environmental Quality Belleville, Michigan.
PCB-contaminated soil/debris	13 roll-off boxes (260 cubic yards)	N/A	Incineration	ChemWaste Management Port Arthur, Texas.
PCB solids PCB liquid	2 roll-off boxes (bulkied 131 drums) 1 drums (55 gal.)	N/A	Incineration	ChemWaste Management Port Arthur, Texas.
PCB-contaminated soil/debris	13 roll-off boxes (260 cubic yards)	N/A	Microencapsulation	Environmental Quality Belleville, Michigan.
PCB/TCE-contaminated soil/debris	55 roll-off boxes (1,100 cubic yards)	N/A	Landfill	ChemWaste Management Model City, New York.
TCLP lead-contaminated soil/debris	9 roll-off boxes (180 cubic yards)	N/A	Landfill	Environmental Quality Belleville, Michigan.
Hazardous liquid	99,479 gallons	N/A	Treatment	ChemWaste Management Sauget, Illinois. ChemWaste Management Port Arthur, Texas.
Sulfide drums	14 drums	N/A	Treatment	City Environmental Detroit, Michigan.
TCE/ignitable solids TCE/ignitable solids	1 roll-off box (bulkied 150 drums) 45 drums	N/A	Landfill	ChemWaste Management Sauget, Illinois.
Non-hazardous water	226,217 gallons	N/A	Treatment	City Environmental Detroit, Michigan. Perma-Fix Dayton, Ohio.
PCB/TCE-contaminated soil/debris	4 roll-off boxes (bulkied 492 drums)	N/A	Landfill	ChemWaste Management Model City, New York.