UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

INSPECTION REPORT

Waste Management
Kettleman Hills Facility
35251 Old Skyline Road
Kettleman City, CA 93239

INTRODUCTION

On November 12, 2010, the U.S. EPA Office of Enforcement and Compliance Assurance, Air Enforcement Division (AED) and EPA Region 9 conducted an unannounced air monitoring inspection at the Waste Management, Inc., Kettleman Hills Facility, located at 35251 Old Skyline Road, Kettleman City, California. The facility borders the west side of the San Joaquin Valley approximately 2.6 miles west of the intersection of Interstate 5 and State Route 41. The geographic coordinates are North Latitude 35° 57' 48.78" and West Longitude 120° 00' 21.45". Environmental monitoring, waste treatment, and waste management operations at the facility are regulated by environmental permits and rules administered by the U.S. EPA, the California Environmental Protection Agency Department of Toxic Substances Control (DTSC), and the California Regional Water Quality Control Board, Central Valley Region.

The air monitoring inspection was conducted by Mr. Cary Secrest, AED, and Ms. Jennifer Downey, EPA Region 9. Attending the survey were Messrs. Paul Turek and Bob Henry of Waste Management, Inc.

AIR MONITORING INSPECTION OBJECTIVES

The purpose of the air monitoring inspection was to determine if the facility emits significant concentrations of volatile organic compounds (VOCs), including benzene. To conduct the survey, EPA staff used calibrated photo-ionization detectors (PIDs) to conduct air monitoring surveys of ambient VOC and benzene concentrations near and downwind of potential sources, including hazardous waste ponds P-9, P-14, and P-16 and the hazardous waste Drum Storage Unit (DSU). In addition, Mr. Cary Secrest used an infrared gas imaging camera to survey the ponds for emissions of VOCs. Mr. Secrest is a Certified Infrared Thermographer (Infrared Training Center, #41167, exp. 10/06/2015). The instruments used during the survey include the following:

Rae Systems, "ppbRae 3000," S/N 594-901619; detection limit 1 ppbV of VOC.
Rae Systems, "UltraRae 3000," S/N 596-901440; detection limit 50 ppbV of benzene.
FLIR Systems Inc., model GF320 gas imaging camera, S/N 44400813.

ON-SITE INSPECTION

At 13:00 on November 12, 2010, Mr. Secrest and Ms. Downey met Messrs. Turek and Henry at the Waste Management Inc. Kettleman Hills office. The EPA staff described the purpose of the visit, and obtained information about the facility's operational status and historical air quality.

The following information was obtained during the office visit:

1. The facility was operating at normal capacity at the time of the site visit.
2. Waste generators provide Hazardous Waste Profiles for pre-approval before shipping waste to the site. The organic content of liquid waste is limited by the company to 100 ppm, even though its permit allows up to 1,000 ppm.
3. Hazardous wastes are stored in ponds P-9, P-14, and P-16 (pond P-15 stores fresh water for road dust control). Other sources of potential ambient air contamination are the DSU, where drums of hazardous waste are stored in a structure with a roof but no walls, and open-top landfill leachate tanks located next to the ponds.
4. The facility operates a weather station that records hourly wind speed and direction data. The facility also operates three air monitoring stations that collect 24-hour samples every 12 days. The samples are analyzed for organic compounds and particulate metals. The air monitoring program is required by the DTSC and is implemented by the facility's contractor, Wenck Associates, Inc., 11113 Houze Road, Suite 200, Roswell, Georgia, 30076. EPA staff obtained a copy of the company's most recent Quarterly Ambient Air Monitoring Program Report for the period April 2010 through June 2010, dated September 2010.

Both PIDs were started by 13:29. At 14:05, EPA and company personnel began a driving tour of the site, stopping at ponds P-9, P-14, and P-16, and at the DSU. During the driving tour, the PIDs were used to sample the facility ambient air upwind and downwind of the landfill. In addition, EPA personnel conducted PID walking surveys downwind of the ponds and the DSU. Figures 1, 2, and 3 show the locations of the PID survey lines. The PID data was averaged at 15-second intervals and is included as Attachment 1 to this report. With the exception of several 15-second readings of 1 to 5 ppbV of VOCs downwind of the DSU, and four 15-second readings of 1 to 10 ppbV of VOCs in the general landfill area, no VOCs, including benzene, were detected. There are no known organic gases that would present a public health risk at those ambient concentrations and durations.

Mr. Secrest conducted gas imaging video surveys of ponds P-9, P-14, and P-16. A video was also recorded at P-9 while a liquid waste tanker truck was off-loading waste into the pond. No organic gases were evident during the gas imaging surveys.

Figure 1. PID Survey Line, Ponds 14, 15, 16.

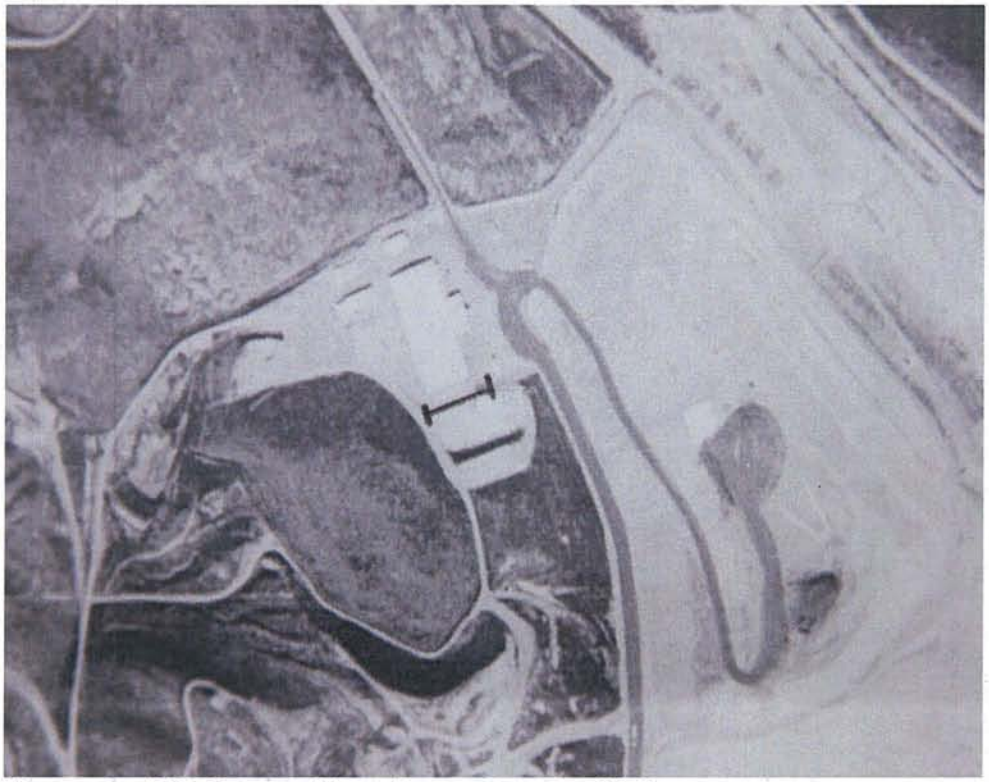

Figure 2. PID Survey Line, Drum Storage Unit

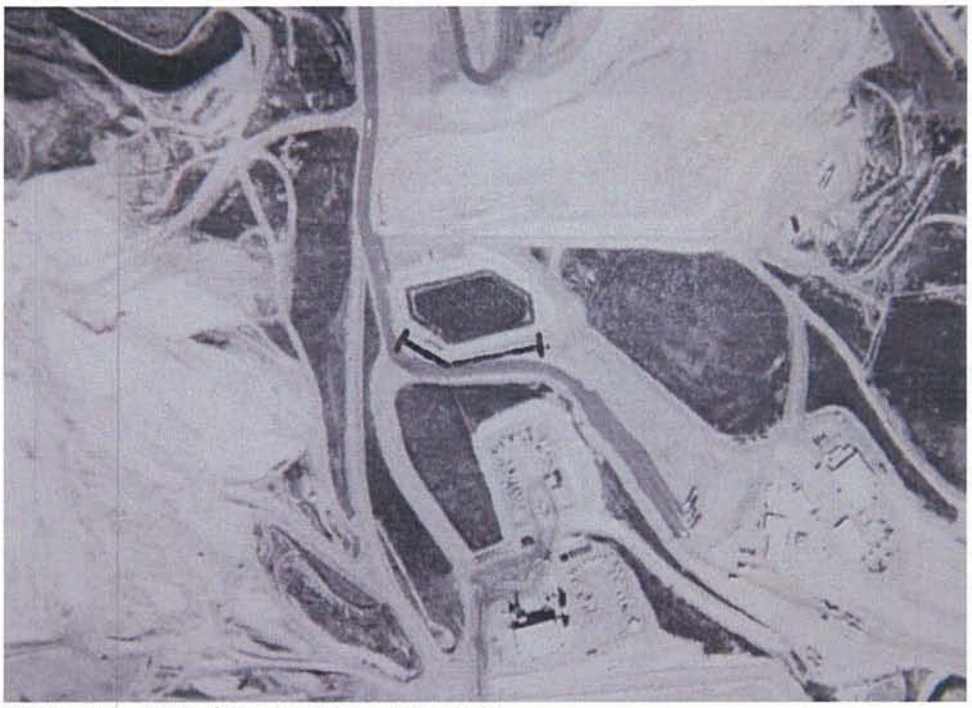

Figure 3. PID Survey Line, Pond 9.

CONCLUSIONS

Air monitoring data collected by the PIDs indicates that the waste water treatment ponds and associated leachate tanks, and the DSU were not significant sources of VOC emissions at the time of the unannounced inspection. Gas imaging of the ponds, including during the off-loading of hazardous waste, also did not indicate significant emissions of organic gases.

EPA reviewed Waste Management's Quarterly Ambient Air Monitoring Program Data Report for the period April 2010 through June 2010. Waste Management analyzed air samples for 40 gases such as benzene and xylene, carbonyl compounds such as formaldehyde, and particulate metals such as arsenic and barium. The ambient samples showed slightly elevated concentrations of ten toxic organic compounds, all in the single-digit, parts-per-billion range and less where adverse public health impacts would not be expected. The metals were reportedly found at background levels.

Based on the information obtained during the air monitoring inspection and our review of Waste Management's quarterly report, the Kettleman Hills facility did not appear to be a significant source of the measured ambient pollutants at the time of the inspection.

RECORDS

The following records and electronic files are available by contacting Mr. Cary Secrest, United States Environmental Protection Agency, Washington, D.C., at (202) 564-8661:

1. FLIR video files, Ponds 9, 14, and 16.
2. PID Calibration Records
3. Field Notes

Attachment 1: PID Data