

N2688  
Manla  
Washtenaw  
(Summary)

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection**

N268836753

FACILITY: Advanced Disposal Services Arbor Hills Landfill Inc		SRN / ID: N2688
LOCATION: 10690 W. SIX MILE RD, NORTHVILLE		DISTRICT: Jackson
CITY: NORTHVILLE		COUNTY: WASHTENAW
CONTACT: Thomas Flannagan, General Manager		ACTIVITY DATE: 02/16/2016
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Summary of FY2016 Compliance related activities and inspection for Arbor Hills Landfill (under Advanced Disposal Services). This is a Title V Major Source PCEs and FCE. Compliance and complaint investigation took place over entire year beginning in January 2016.		
RESOLVED COMPLAINTS:		

Individual PCEs were performed on numerous dates throughout the year beginning in January 2016. Commencing with an odor complaint situation beginning early January 2016 and continuing to the end of the FY 2016 on September 30th. Numerous activities took place over the FY including complaint investigations, odor observations, site- inspections, and meetings with one of more of the three companies associated with Arbor Hills Landfill; Advanced Disposal Service, Republic Services, and Fortistar Methane Group. (3 Sectioned ROP). US EPA became involved in February 2016 and issued 114 Information requests to all three companies. At the time of this PCE / FCE compliance determination is non compliance due to the existing Fortistar non-compliance with failed SO2 Testing and pending escalated enforcement action. The off-site landfill gas odor and complaint situation also appears to be non-compliance however AQD has not issued a violation to date.

**THIS REPORT DOCUMENTS AQD COMPLIANCE ACTIVITIES PRIOR TO THE PCE INSPECTION DATE OF 2/16/2016:**

US EPA conducted an unannounced inspection and sampling/monitoring event on 2/16/16 and AQD and OWMRP staff accompanied them during this inspection. US EPA submitted a copy of their inspection report and results of air monitoring / sampling. Those reports are attached to this report to file.

**COMPLAINT INVESTIGATIONS:**

(3) Complaint investigations were conducted and reports are logged in MACES prior to the 2/16/16 inspection. Investigation dates are 2/6/16, 1/28/16 and 1/5/16.

**ODOR EVALUATION / OBSERVATION REPORTS:**

(13) Odor evaluations were conducted prior to the 2/16/16 inspection and are logged in MACES. Odor evaluation dates are 2/14, 2/12, 2/10, 2/05, 2/03, 1/29, 1/28, 1/26, 1/21, 1/20, 1/15, 1/07, 1/06.

**COMPLAINTS RECEIVED:**

January 2016, AQD received 38 odor complaints associated with Arbor Hills Landfill.

February 2016, AQD received 91 odor complaints associated with Arbor Hills Landfill.

**COMPLIANCE SUMMARY**

At the time of the EPA compliance inspection with AQD and OWMRP staff present, the compliance status of the Arbor Hills Landfill facilities was unknown. Significant off-site odors had been identified. Compliance information was being collected and reviewed and continued observations, inspections and meetings were being conducted to determine compliance. It appears excessive landfill gas resulted in the off-site odors and subsequent residential complaints. Republic and Advanced ongoing and proposed construction activities at the time of the 2/16 inspection indicate significant wellfield

**improvements and expansion was required to address the excess landfill gas emissions.**

NAME \_\_\_\_\_

DATE \_\_\_\_\_

SUPERVISOR  \_\_\_\_\_

N2688  
Mamla  
Washtenaw  
(PCE  
Inspection)

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

ACTIVITY REPORT: Self Initiated Inspection

N268833395

FACILITY: Advanced Disposal Services Arbor Hills Landfill Inc		SRN / ID: N2688
LOCATION: 10690 W. SIX MILE RD, NORTHVILLE		DISTRICT: Jackson
CITY: NORTHVILLE		COUNTY: WASHTENAW
CONTACT: Thomas Flannagan, General Manager		ACTIVITY DATE: 02/16/2016
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Unknown	SOURCE CLASS: MAJOR
SUBJECT: Unannounced facility inspection by US EPA region 5. DKV AQD, and Alex Whitlow (OWMRP) accompanied EPA during inspection. Other AQD staff (JK and SM) accompanied EPA staff in the GMAP (ambient air monitoring van) during the same inspection. EPA: Kenneth Ruffatto, Inspector; Scott Hamilton, Monitoring.		
RESOLVED COMPLAINTS:		

**ARBOR HILLS LANDFILL CONTACTS PRESENT DURING UNANNOUNCED COMPLIANCE INSPECTION:**

**Advanced Disposal Services (ADS) present:** Tom Flannagan, General Manager, [Thomas.Flannagan@advanceddisposal.com](mailto:Thomas.Flannagan@advanceddisposal.com), (248) 412-0684; Dave Rettell, P.E., East Region Landfill Manager, [dave.rettell@advanceddisposal.com](mailto:dave.rettell@advanceddisposal.com), (248) 305-2402; Jennifer Baker, Director of Environmental Compliance, BEL Environmental Engineering.

U.S. EPA, Region V, lead compliance inspection. EPA scheduled the unannounced compliance inspection on this date with prior notification to the MDEQ-AQD. EPA also included Monitoring staff and they brought their Geospatial Monitoring Van. EPA provided AQD and the AHLF with copies of their formal written inspection report. EPA also submitted GMAP Monitoring data results report and maps. These reports have been placed in the AHLF plant file with this AQD report.

EPA present: Ken Ruffatto (KR), Environmental Engineer, Air Enforcement and Compliance Assurance, (IL/IN), Scott Hamilton, Physical Scientist, Air Monitoring and Analysis Section, and Bilal Qazzaz, Physical Scientist AMAS.

DEQ- AQD present: Diane Kavanaugh Vetort (DKV), Scott Miller (SM) and Jerry Krawiac, Detroit Office (JK)

DEQ- OWMRP present: Alex Whitlow (AW)

On February 16, 2016, at approximately 2:00 PM AQD met EPA representatives at the Northville Park parking lot on Beck Road. We then traveled to the Arbor Hills Landfill (AHL), located at 10690 W. Six Mile Road, Northville, MI 48168. Upon our arrival we entered the facility and met with Tom Flanagan. The inspection included a site tour and inspection and the EPA's Geospatial Monitoring of Air Pollution (GMAP) Van conducted monitoring on-site and in the surrounding area, primarily downwind of the AHLF and in the residential areas where complaints are prevalent.

The GMAP Van collected air monitoring data for emissions of Methane, Hydrogen Sulfide, and EPA collected one or more Suma Canisters - grab sampling. The GMAP obtains measurements for methane and hydrogen sulfide.

**BACKGROUND**

MDEQ AQD and OWMRP both have regulatory oversight of MSW Landfills. This is an ongoing odor complaint situation involving residents of the subdivisions to the east, northeast, and southeast. The identified odor source is the AHLF, a Municipal Solid Waste (MSW) LF subject to the New Source Performance Standard (NSPS) Subpart WWW, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart AAAA, and is a Major Stationary Source with a three Sectioned, Renewable Operating Permit, MI-ROP-N2688-2011.

The ongoing odor complaint situation may continue until such time as Advanced Disposal (Section 1) and Republic Services (Section 2) can address the landfill gas (LFG) collection issues in the north facing slope and active areas. It appears this may need to include expansion of the well field and the adding of LFG wells where none currently exist. This means that the well field will need rebalancing and or an increase in vacuum and potentially more LFG control. AHL's current gas collection and control system design plan (GCCS) indicated that the existing controls, namely the Arbor Hills Energy, LLC - FORTISTAR (Section 3) Turbine plant (landfill gas to energy) and LFG Treatment system was sufficient control for the life of the existing landfill design. In addition, Republic owns/operates two permitted Enclosed Flares as back up control.

AQD and OWMRP have both conducted complaint investigations and odor observations in addition to on-site inspections prior to today's EPA inspection. AQD initially met with Tom Flanagan, Operations Manager for Advanced Disposal on January 5th. He was notified of the complaints we received and acknowledged significant landfill gas odor had been experienced by him and employees on site and in the parking lot. Tom told me they also receive calls and complaints directly. He appeared to be genuinely concerned about the odor complaints and expressed his commitment to working with Republic to investigate and address why there is excess landfill gas and odor. The identified area most likely the source of LFG odor thus far is the Cell 4, a newly constructed area. Cell 4 abuts and overlays Cells 1, 2 and 5 and is located on the northern most side of the AHL along 6 Mile. Predominant southwest winds and recent cold, inversion weather conditions have contributed to the odor impacts off-site it appears. The most common time periods reported for odor complaints are early mornings and evenings/overnight.

Republic and Fortistar have ownership of and responsibility for the active gas collection system consisting of LFG Wells and piping to the Treatment System and Turbine plant or Enclosed Flares. Fortistar is a contractor of Republic. Fortistar employs the Well and Surface Monitoring Technician. Each Well is required to be monitored monthly and tuned to operating parameter standards for Oxygen, Pressure and Temperature. The entire landfill, excluding active areas, or dangerous areas identified in the GCCS plan is required to have surface monitoring conducted with an approved flame ionization detector (FID) on a quarterly basis. Any reading above 500 parts per million methane (background identified in the Subpart WWW) is required to be corrected and re-monitored on a schedule identified in the standard.

### COMPLIANCE INSPECTION

Today's inspection was the lead of Ken Ruffatto, US EPA, Region V., and he requested specific records for compliance review and conducted a physical inspection in the active solid waste area(s). We drove with Tom Flanagan around all the perimeter roads and to the active filling areas.

A primary focus was to inspect the newest Cell 4 area believed to be the primary LFG odor source and observe for odors. Cell 4 is divided into separate sections identified as 4A, 4B, 4C and 4D. Cells 4A/B are completed and waste is in place that AHL has said is not quite 2 years old. The 4A/B are filled and covered, with no LFG Wells at the time of initial complaints. The NSPS Subpart WWW requires Wells be added within 5 years if active and 2 years if closed and at final grade. Cell 4C is constructed and not filled and Cell 4D is the current location of the Shop Building on the site. A new shop is in the process of being built across 6 Mile to the north in the area near the existing ADS Composting area.

During the inspection DKV and AW accompanied KR and this included driving and walking in variously locations over the AHL site. Throughout the inspection I periodically detected different LFG odor intensities and durations. Most everyone with us indicated smelling LFG at some point in time.

Some information EPA obtained during the inspection:

1. The landfill collects @ 10,000 tons per day of MSW and C & D wastes.
2. Cell 4 started accepting waste in May 2014.
3. A new wellfield of @ 15 wells was put into Cell 4, as well as a clay liner placed between the old cells and Cell 4 to mitigate odors. 11 of 15 were online during the inspection. (AQD notes this was an early Phase of many construction phases that followed).
4. The gas to energy (Fortistar) turbine plant is capable of a gross output of @ 23 MW of electricity at an average landfill gas flow of @ 7,000 scfm.

KR also brought a FLIR camera and this was used as we drove and walked the landfill site to detect VOCs or gas escaping from the cover, wells, or cells. No leaks were seen with this camera. KR also took numerous photographs of the site.

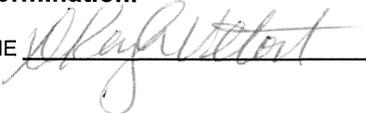
Upon leaving the AHL site at @ 5:30 PM AQD accompanied EPA and their GMAP Van to conduct additional monitoring on the surrounding public roadways of the landfill. Napier Road was one location where landfill gas odor was detected. Odor was distinct but fleeting, not lasting long in any one location along Napier Road.

#### COMPLIANCE SUMMARY

AQD and OWM believe the compliant and odor situation is serious and the cause of the excess landfill gas needs to be immediately identified and corrective actions taken. AQD indicated that while we have continued to receive complaints and conduct odor observations we have not verified a Rule 901 violation thus far. We will continue to respond to complaints and conduct period odor evaluations in the area.

Both AQD and OWM will continue to conduct inspections, odor observations and respond to complaints. The potential for a Rule 901 violation due to the odors being identified and a violation notice being issued is a real concern and was discussed with AHL companies previously. All three companies need to monitor compliance with their ROP conditions and the federal NSPS Subpart WWW is contained in the Republic Section 2 of the ROP primarily.

At this time an AQD compliance determination is pending the results of the EPA inspection(s) and determination.

NAME  DATE 9/29/16 SUPERVISOR 