

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

N603527393

FACILITY: DELTA SOLID WASTE MANAGEMENT AUTHORITY		SRN / ID: N6035
LOCATION: 5701 19TH AVENUE N, ESCANABA		DISTRICT: Upper Peninsula
CITY: ESCANABA		COUNTY: DELTA
CONTACT: Don Pyle, Landfill Manager		ACTIVITY DATE: 09/26/2014
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled district/asbestos inspection of landfill.		
RESOLVED COMPLAINTS:		

FACILITY: Delta Solid Waste Management Authority, a.k.a. "Delta County Landfill" (ROP# MI-ROP-N6035-2012)

INSPECTION DATE: 9/26/2014

MDEQ-AQD STAFF:

- Joseph Scanlan, EQA
- Joel Asher, EQA

FACILITY REPRESENTATIVE:

- Don Pyle, Landfill Manager

LOCATION:

Delta Solid Waste Management Authority (DSWMA) is located at 5701 19th Avenue, Escanaba, in Delta County, Michigan. The facility consists of 277.9 acres located in the N 1/2 of Sec. 22 and S 1/2 of Sec. 15, T39N, R23W, Wells Township, Delta County. The facility is located approximately 2.1 miles due west of US-2. There are residential neighborhoods approximately 0.35 miles to the north and 0.45 miles to the northwest from the northern-most boundary line of DSWMA's Northern Fill Area north of 19th Avenue. Nearest residential structure to the west is approximately a half mile; to the south of the currently operating cell approximately one mile. Development to the east is commercial and industrial.

SUMMARY OF OPERATIONS:

Delta Solid Waste Management Authority (DSWMA), more commonly referred to as the 'Delta County Landfill', is a Class II sanitary municipal solid waste landfill and is owned by DSWMA and the City of Escanaba. DSWMA currently accepts sludge, asbestos containing wastes, fly ash, industrial waste, and miscellaneous solids along with municipal household waste. In July of 2009, DSWMA received approval for a proposed landfill expansion, the Northern Fill Area which increases the maximum design capacity of the landfill from 1.65 million cubic yards to 7.85 million cubic yards. DSWMA also includes two closed Type III landfill cells which contain only construction demolition waste and fly ash.

Natural biological processes occurring in the landfill transforms the waste constituents, producing leachate and landfill gas. Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas consists mainly of methane, carbon dioxide, and nonmethane organic compounds (NMOC). The NMOC is the primary regulated air pollutant associated with landfill gas generation. Asbestos is disposed of along cell boundaries at graduated depths corresponding to the slope of the cell face and latitude and longitude coordinates and elevations of these deposits regularly surveyed.

Landfill gas from the existing stationary source (EU-LANDFILL) is collected through an active gas collection and control system (GCCS; also EU-ACTIVECOLL) and routed to one open flare gas control system (EU-OPENFLARE). DSWMA has expanded the GCCS into the recently permitted Northern Fill Area, however new cells have 5 years after use begins before the GCCS must be online and operational for that particular cell. The current active landfill gas collection and control system came online in early 2012. The GCCS has leachate 'knockouts' for sample collection as well as drains for the leachate to enter the city's sanitary sewer system. DSWMA is the furthest customer from the city's wastewater treatment

plant and as additional sewage waste is accumulated enroute to the treatment plant the leachate and other untreated sewage becomes homogenized, eliminating the negative impacts leachate may otherwise directly have on the plant.

DSWMA currently owns and operates a single compactor and dozer, which are currently housed in a pole-barn type outbuilding adjacent to the active cell. Once operations began at the Northern Fill Area these and any newly acquired machines will be housed in newly-constructed pole buildings near the new cell, north of 19th Avenue. One quarter (25%) of these new buildings will be heated by a 250k BTU ceiling-mounted furnace (EU-FURNACE) which is fired by accumulated waste oil. Oil is stored initially in a 250 gallon AST to settle out and then the upper 2.5' of the tank are siphoned into a main 1100 gallon double-walled AST.

HISTORY:

The 'old side' of the DSWMA landfill was unlined and the subject of poor management and numerous violations with the State regarding poor waste disposal practices and groundwater contamination. Closure of this portion of the landfill took place from 1995 until closure was deemed complete in 1997. Record keeping was nonexistent to substandard for this area resulting in very few waste disposal records. Landfill operator Mr. Don Pyle was hired in 1998. Mr. Pyle instituted new protocols for operations and record keeping.

The landfill has outgrown its existing footprint where it is currently operating, however construction has already begun on a newly permitted area across 19th Avenue where landfill operations will commence in 2015. This area is referred to as the Northern Fill Area and is already plumbed into the DSWMA's existing GCCS.

REGULATORY APPLICABILITY:

The stationary source is located in Delta County, which is currently designated by the USEPA as attainment/unclassified for all criteria pollutants. Additionally, this stationary source is not considered a major source of HAP emissions because the potential to emit of any single HAP regulated by the federal Clean Air Act, Sec. 112, is less than 10 tons per year and the potential to emit of all HAPs combined is less than 25 tons per year.

No EUs are currently subject to PSD regulations.

The stationary source is subject to 40 CFR, part 70 because the source is subject to the federal NSPS for Municipal Solid Waste Landfills which requires a 40 CFR Part 70 Title V permit. The stationary source is also subject to the NSPS for Municipal Solid Waste Landfills 40 CFR Part 60, Subparts A and WWW, the later because its design capacity exceeds 2.5 million Megagrams (Mg) and 2.5 million cubic meters and is required to install a landfill GCCS; emissions are at or greater than 50 Mg/yr.

The stationary source is subject to the asbestos regulations found in 40 CFR Part 61 because the landfill accepts asbestos containing waste (EU-ASBESTOS).

The use of cleaning solvents containing halogenated compounds are regulated pursuant to Act 451, Rules 611 and 707 (FG-COLDCLEANERS).

EU DETAILS:

No.	Emission Unit/Flexible Group	Description	Permit #	Comp. Status
1.	EU-LANDFILL	The general municipal solid waste landfill in which the collected landfill gas is sent primarily to a control system.	MI-ROP-N6035-2012	C

2.	EU-ACTIVECOLL	Landfill GCCS using gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment.	MI-ROP-N6035-2012	C
3.	EU-OPENFLARE	Open flare is an open combustor without enclosure or shroud.	MI-ROP-N6035-2012	C
4.	EU-ASBESTOS	Landfill actively accepts asbestos waste.	MI-ROP-N6035-2012	C
5.	EU-FURNACE	250,000 Btu/hr waste oil furnace.	MI-ROP-N6035-2012	C
6.	FG-COLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation on or after July 1, 1979.	MI-ROP-N6035-2012	Ukwn

Emission Limit(s):

- EU-LANDFILL cannot exceed 500ppm above background level methane concentrations;
- None for EU-ACTIVECOLL, EU-OPENFLARE, EU-ASBESTOS, EU-FURNACE
- N/A for FG-COLDCLEANERS

Material Limit(s):

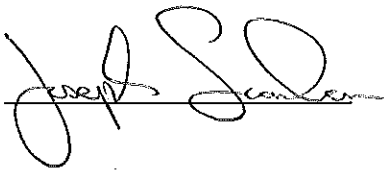
- None for EU-LANDFILL, EU-ACTIVECOLL, EU-OPENFLARE, EU-ASBESTOS
- EU-FURNACE has limits on quantity of waste oil burned (1 gal/hr), as well as: arsenic (5 ppm); cadmium (2 ppm); chromium (10 ppm); lead (100 ppm); total halogens (1000 ppm)
 - *A waste oil sample was collected from the settling tank by myself and sent for analysis to Fibertech Environmental Services; results received on 10/22/2014;*
 - *Analytical lab report results on waste oil sampled from the settling tank during inspection showed EU-FURNACE to be in compliance with these limits.*
- FG-COLDCLEANERS has limits on using cleaning solvents which contain more than 5% by weight of halogenated compounds.

Recordkeeping:

- EU-LANDFILL requires records kept and maintained on file of the design capacity, current amount of solid waste in place & year-by-year acceptance rate; annual recalculation of site-specific density and design capacity. Paper or electronic formats.
 - *These records are accessible and maintained.*
- EU-ACTIVECOLL requires records kept and maintained on file for monthly pressure readings at gas collection header; monthly temperature and oxygen readings at each well; plot map showing each existing and planned well; schematic of all well installations; presence of asbestos; dates of well installation, age of waste where installed.
 - *15 wells total in collection system*
 - *The well head monitor was out for repairs at the time of inspection--shipped the week prior to repair shop. In addition, the backup/spare handheld unfortunately became inoperable the morning of our arrival. No records for September 2014. Records were available for August (8/29).*
- EU-OPENFLARE requires records kept and maintained on file regarding flare type, VE readings, heat content determination, flow rates (exit velocity/max velocity), presence of flare pilot flame, periods of operations where flare or pilot flame is absent
 - *The main shut-off valve had been recently replaced;*
 - *Maintenance had recently been performed on the ignition system and spark arrestor;*
 - *Occasionally high winds will blow out the flare;*
 - *Some of the landfill waste is 25 yrs old and just does not consistently produce volumes of gas at the minimum pressure required of 150 ft³/min;*
 - *Most current readings of flare showed the velocity and temperature of gas entering the flare @ 154.3 - 156 ft³/min @ 113 degrees Fahrenheit.*
- EU-ASBESTOS requires records kept and maintained on file for waste shipment; location, depth and area, and quantity of asbestos waste on a map or diagram; nature, date of deposition.
 - *Asbestos containing waste is placed on cell boundary lines at graduated depths corresponding to the slope of the active face of the cell;*
 - *Locations are recorded on an annual survey and coordinates/elevations are displayed on a map;*
 - *81.53 tons of asbestos-containing waste was collected in 2013;*
 - *Cost for disposal of asbestos-containing waste is double the cost for regular municipal waste;*
 - *DSWMA requires 24-hour advance notice prior to receiving shipments of asbestos-containing waste.*
- EU-FURNACE requires records kept and maintained on file for amount of oil in gallons burned in furnace; amount, date, generator name & location of any used oil collected from off-site locations; total halogen content of all used oil collected from off-site locations; hours of furnace operation.
 - *Waste oil records are readily accessible;*
 - *A waste oil sample was collected from the settling tank by myself and sent for analysis to Fibertech Environmental Services; results received on 10/22/2014;*
 - *Analytical lab report results on waste oil sampled from the settling tank during inspection showed EU-FURNACE to be in compliance with material limits;*
 - *No furnace is currently in use or operable at the moment; new 250k Btu/hr furnace in new compactor building has not been hooked up and older furnace new one is replacing is out of service; new furnace should be operable winter of 2014;*
 - *Typically furnace will run 24/7 during the colder months*
- FG-COLDCLEANERS requires records kept and maintained on file for solvent temperature; manufacturer and installation data, Rule 281(h) exemptions; 201 exemptions; Reid vapor pressure for each solvent; and operating procedures.

SUMMARY:

This facility appears to be meeting the requirements set forth in ROP# MI-ROP-N6035-2012 and no violations of the Air Pollution Control Rules or Asbestos NESHAP were observed during this inspection.

NAME 

DATE 10/31/14

SUPERVISOR _____

Date 09/26/14
Time 11:31:09

Delta Solid Waste Management Authority, MI

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Grid Summary Report

Summary Report for For the Period 01/01/2013 - 12/31/2013

Sites: 1, 2

Materials AS -- AS Grids - zzzzzzzzzz
Material Types - 2 Accounts 0 - 999999 Customer Types - Z

Date	Grid	Material	Customer	Tickets	Count	Volume	Net Wt	Charge
		AS		66	0	0	81.53	8,309.39
			Report Total	66	0	0	81.53	8,309.39



Analytical Laboratory Report
Laboratory Project Number: 64565
Laboratory Sample Number: 64565-001

Order: 64565
 Page: 2 of 3
 Date: 10/22/14

Client Identification:	MDEQ/AQD - Lansing District Office	Sample Description:	Waste Oil	Chain of Custody:	00001
Client Project Name:	Delta Solid Waste Management Authority	Sample No:	N6035A	Collect Date:	09/26/14
Client Project No:	N6035	Sample Matrix:	OIL	Collect Time:	12:00

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Ignitability (Waste Characterization) (EPA 1010A)

Aliquot ID: 64565-001

Matrix: Oil

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Ignitability	190		°F	45	1.0	NA	NA	10/14/14	WK14J14A	NRV

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)

Aliquot ID: 64565-001

Matrix: Oil

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		µg/kg	100	10	10/13/14	PT14J13A	10/13/14	T414J13A	JLH
2. Cadmium	150		µg/kg	50	10	10/13/14	PT14J13A	10/13/14	T414J13A	JLH
3. Lead	18000		µg/kg	1000	10	10/13/14	PT14J13A	10/13/14	T414J13A	JLH

Total Halogens (SW 846 9076 (MLI))

Aliquot ID: 64565-001A

Matrix: Oil

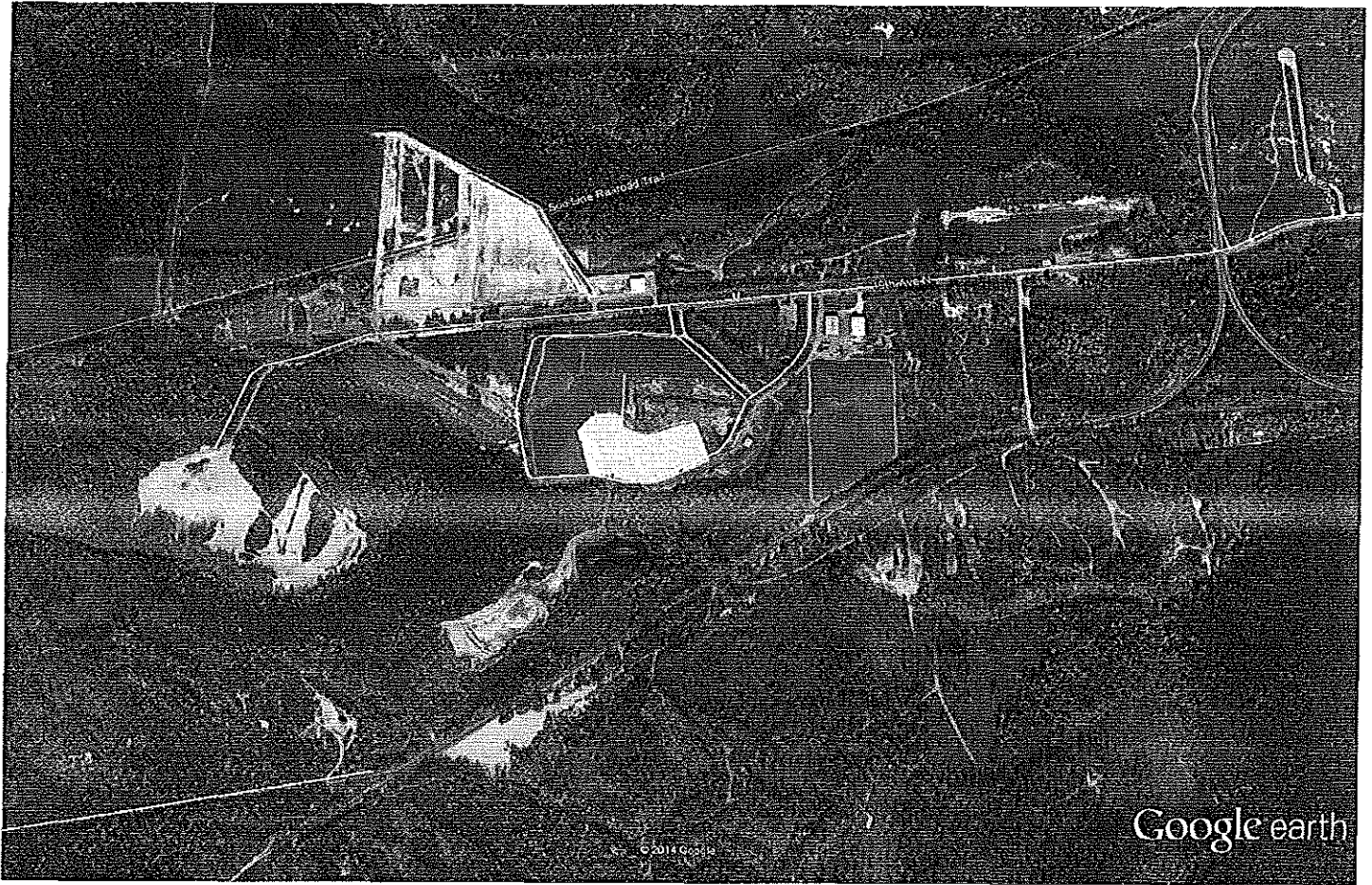
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Total Halogens	1300		mg/kg	21	1.0	NA	NA	10/15/14	NA	MA

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Google earth

