

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N603331017

FACILITY: DAFTER SANITARY LANDFILL INC		SRN / ID: N6033
LOCATION: 3962 W 12 MILE ROAD, DAFTER		DISTRICT: Upper Peninsula
CITY: DAFTER		COUNTY: CHIPPEWA
CONTACT: TIM HARROW , SITE MANAGER		ACTIVITY DATE: 08/26/2015
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced inspection of Title V source to determine compliance with MI-ROP-N6033-		
RESOLVED COMPLAINTS:		

FACILITY: Dafter Landfill Inc (MI-ROP-N6033-2011)

INSPECTION DATE: 8/26/2015

MDEQ-AQD STAFF:

- Joseph Scanlan, EQA

FACILITY REPRESENTATIVE:

- Tim Harrow, Landfill Operations Manager, Waste Management

LOCATION:

Dafter Sanitary Landfill (DSL) is located near the village of Dafter in Chippewa County, on 12 Mile Road near Mackinac Trail. The surrounding area is rural.

SUMMARY OF OPERATIONS:

DSL began accepting waste in 1981. The facility contains five landfill cells: A, B, C, D, and E. Cell A is closed, and has passive vents. Cells B, C, D, and E are active and have 14 passive vents installed in August 2009.

On February 12, 2004, the then Department of Environmental Quality (DEQ) Waste and Hazardous Materials Division issued a new Construction Permit to the DSL that increased the total permitted waste capacity from 1,322,000 cubic yards to 5,312,000 cubic yards. The Landfill became subject to 40 CFR Part 60, Subpart WWW New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills which requires that any municipal solid waste landfill that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters obtain a Part 70, Renewal Operating Permit (ROP). In accordance with Air Pollution Control Rule 211(1) (d) the facility submitted ROP application number 200400083 for an initial ROP. The application was received by the Air Quality Division on April 16, 2004, as specified in Rule 210 (5), and the facility obtained an application shield. The current Renewal ROP application number 201400197 was received timely on December 19, 2014, and the facility obtained an application shield.

A landfill means an area of land or an excavation in which wastes are placed for permanent disposal. DSL is classified as a Type II municipal solid waste landfill that has been accepting waste since 1981. A Municipal Solid Waste (MSW) landfill or Type II landfill according to Act 451, Part 115, Solid Waste Management is:

“A landfill which receives household waste, municipal solid waste, incinerator ash or sewage sludge and which is not land application unit, surface impoundment, injection well, or waste pile. A municipal solid waste landfill also may receive other types of solid waste, such as commercial waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial waste. Such a landfill may be publicly or privately owned.”

Natural biological processes occurring in landfills transform the waste's 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). NMOC is the primary regulated air pollutant associated with landfill gas generation, which was promulgated as a regulated air pollutant under 40 CFR Part 60, Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) in the 2013 submittal.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	1.16
Non-Methane Organic Compounds (NMOC)	0.40
Particulate Matter (PM)	1
Volatile Organic Compounds (VOCs)	1
PM10	<1
PM 2.5	<1

Individual Hazardous Air Pollutants (HAPs) **	Pounds per Year
Acrylonitrile	197
Benzene	87
Carbon Disulfide	26
Carbonyl Sulfide	17
Chlorobenzene	16
Ethyl Benzene	287
Ethyl Chloride (Chloroethane)	47
Hexane	332
Methyl Chloride (Chloromethane)	36
Methyl Ethyl Ketone	299
Methyl Isobutyl Ketone	110
Methylene Chloride	711
Propylene Dichloride	12
1,1,2,2-Tetrachloroethane	109
Tetrachloroethylene (Perchloroethylene)	362
Toluene	2121
Trichloroethylene	217
Vinyl Chloride	269
Xylenes (isomers and mixture)	752
Total Hazardous Air Pollutants (HAPs)	6007

**As listed pursuant to Section 112(b) of the federal Clean Air Act.

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process specific emission limits or standards.

REGULATORY ANALYSIS

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is located in Chippewa County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the source is subject to NSPS, Subpart WWW per 40 CFR Part 60.752(b). The source is subject to NSPS, Subpart WWW because DSL's design capacity exceeds 2.5 million megagrams and 2.5 million cubic meters. EULANDFILL<50 at the stationary source is subject to the New Source Performance Standards for Municipal Solid Waste Landfills promulgated in 40 CFR Part 60, Subparts A and WWW.

The stationary source submitted a Tier 2 Landfill Gas Sampling and Analysis Report in December 2014. The site specific NMOC concentration was determined to be 8.3 parts-per-million by volume (ppmv) as hexane with an emission rate of 0.36 Mg/year. Projected annual NMOC emission rate was calculated as 0.38 Mg/year for the year 2020 and a projected peak emission rate of 0.43 Mg/year for the year 2049. Due to an NMOC emission rate of less than 50 Mg/year, DSL is not yet required to install a landfill gas collection and control system.

No emissions units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451.

The stationary source operates various, Act 451, Rule 201 exempt equipment including several existing gasoline (spark ignition SI) or diesel (compression ignition CI) internal combustion engines of less than 10,000,000 BTU/Hr maximum heat input. The RICE include gasoline-fired, 10 horsepower, non-emergency generators, gasoline and diesel fired pressure washers, pump, and an air compressor. Federal regulations, the New Source Performance Standards, 40 CFR Part 60, Subpart IIII and Subpart JJJJ and the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart ZZZZ were reviewed for applicability to these RICE. At the time of the ROP DSL demonstrated the current standards were not applicable based on the dates equipment was ordered/purchased/constructed; prior to applicable dates of the standards. DSL also stated all of their SI and CI RICE are not "stationary" but instead meet the definition "non-road" engines pursuant to 40 CFR 60.1068.3. This is because they are portable or transportable according to the definition. The designation of these engines as non-road, non-stationary engines establishes that they are not subject to the specific requirements of 40 CFR Part 60, Subparts IIII & JJJJ and 40 CFR Part 63, Subpart ZZZZ.

EUASBESTOS at the stationary source subject to the National Emission Standard for Hazardous Air Pollutants for asbestos promulgated in 40 CFR Part 61, Subparts A and M.

The flexible group FGCOLDCLEANERS and emission group EU-002 that covered existing and future exempt cold cleaners, regulated by Part 55, Air Pollution Control, Act 451, Rule 611 and 707, has been removed. The small parts washer has been decommissioned and removed. There is no longer the potential for volatile organic compound emissions from this emission group.

The stationary source has a fugitive dust control program. They also operate a 300,000 gallon leachate storage tank. In 2010, DSL installed self-igniting (pilot or solar) flares on some existing passive vents and leachate risers as voluntary control of potential odors under the Part 55, Air Pollution Control, Act 451, Rule 278, and Rule 285(aa) exemption.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units are subject to the federal Compliance Assurance Monitoring rule under 40 CFR Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

The emission limitation(s) or standard(s) for municipal solid waste landfills are exempt from the federal Compliance Assurance Monitoring (CAM) regulation under 40 CFR Part 64, because municipal solid waste landfills are addressed in 40 CFR Part 60, Subpart WWW, NSPS and 40 CFR Part 63, Subpart AAAA, MACT. Therefore, municipal solid waste landfills are exempt from CAM requirements.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

INSPECTION

On 8/26/2015 I conducted an unscheduled visit of Dafter. PPE worn during this inspection included steel-toed boots, safety vest, safety glasses and hardhat. No odors were noted downwind and outside of the facility. All haul roads, the plant yard, and the active parts of the landfill had no noticeable visible emissions during the inspection and appeared to be in good repair.

Mr. Harrow informed me that the retired parts cleaner had been removed from site. Records were obtained in the office where he provided copies of the asbestos waste handling records and disposal locations. Waste manifests for all other municipal waste, etc., were accessed using Waste Management's internal database.

EMISSION UNIT DETAILS

Emission Unit ID	Description of Emission Unit	ROP/PTI#	Installation/Modification Date	Compliance Status
	This emission unit is of a landfill which has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, but actual emissions based upon an established Tier 2 value in		1981 / 2-12-	

EULANDFILL	the landfill calculation are less than 50 megagrams. This landfill also has received a volume expansion permit to increase design capacity from the DEQ after May 30, 1991, and therefore making the landfill subject to NSPS WWW.	MI-ROP-N6033-2011	2004	C
EUASBESTOS	The landfill is actively or has accepted asbestos waste in the past.	MI-ROP-N6033-2011	1981	C

EULANDFILL

I. EMISSION LIMIT(S) – NA

II. MATERIAL LIMIT(S) – NA

III. PROCESS/OPERATIONAL RESTRICTION(S) – NA

IV. DESIGN/EQUIPMENT PARAMETER(S) – NA (Landfill < 50 Mg/year)

V. TESTING/SAMPLING – Tier 2 testing to demonstrate the NMOC annual emissions rate was performed in 2014 and demonstrated that the facility was below the 50 Mg threshold for NMOC annual emissions (0.36 Mg/year). Current modelling indicates that NMOC emissions in 2049 would be 0.43 Mg/year, still below thresholds prescribed in 40 CFR WWW.

VI. MONITORING/RECORDKEEPING – 5 year record retention on-site of design capacity report, current amount of solid waste in-place, and year-by-year waste acceptance rate were all provided upon request.

VII. REPORTING – All required ROP reporting has been submitted in a complete and timely manner.

EUASBESTOS

I. EMISSION LIMIT(S) – NA

II. MATERIAL LIMIT(S) – NA

III. PROCESS/OPERATIONAL RESTRICTION(S) – The entire facility was adequately fenced and properly signed to deter the general public. Asbestos containing material is logged in, surveyed for latitude, longitude, and elevation, and buried properly.

IV. DESIGN/EQUIPMENT PARAMETER(S) - The facility is currently not required to install gas collection. However, in the event that they were, all locations of asbestos containing materials taken in at the facility have been recorded on a map of the facility.

V. TESTING/SAMPLING – NA

VI. MONITORING/RECORDKEEPING – Review of records of the last 12 months demonstrated that the records are kept in a timely manner. Information relating to generator identification, transporter identification, quality of material, containment, and location of material are all being kept in a compliant manner.

VII. REPORTING – Semi-Annual and Annual Reporting is being performed in a timely manner. There are no records of requests to disturb placed waste and no indications of the need to do so.

VIII. STACK RESTRICTIONS – NA

IX. OTHER REQUIREMENTS—NA

EXEMPT SOURCES

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

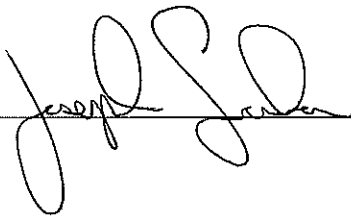
Exempt	Description of	ROP	PTI Permit
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Emission Unit ID	Exempt Emission Unit	Exemption	Exemption
EUGEN001	16 horsepower Gasoline internal combustion engine: Generator	R 336.1212(4)	R 336.1285(g)
EUGEN002	16 horsepower Gasoline internal combustion engine: Generator	R 336.1212(4)	R 336.1285(g)
EUPUMP001	16 horsepower Gasoline internal combustion engine: Pump	R 336.1212(4)	R 336.1285(g)
EUPRSSWSHR001	16 horsepower Gasoline internal combustion engine: pressure washer	R 336.1212(4)	R 336.1285(g)
EUPRSSWSHR002	<1MMBTU/HR Diesel internal combustion engine: pressure washer	R 336.1212(4)	R 336.1285(g)
EUPRSSWSHR003	<1MMBTU/HR Diesel internal combustion engine: pressure washer	R 336.1212(4)	R 336.1285(g)
EUACOMP001	38 horsepower Gasoline internal combustion engine: Compressor	R 336.1212(4)	R 336.1285(g)
EUPROHTER001	80,000MMBTU/HR Propane heater	R 336.1212(4)	R 336.1282(b)(i)
EUPROHTER002	105,000MMBTU/HR Propane heater	R 336.1212(4)	R 336.1282(b)(i)
EUPROHTER003	105,000MMBTU/HR Propane heater	R 336.1212(4)	R 336.1282(b)(i)

SUMMARY

No violations of ROP #MI-ROP-N6033-2011 were observed at the time of this inspection and the facility appears to be in compliance with the ROP.

NAME



DATE

10/9/15

SUPERVISOR _____