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

N603546830

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 - 10/20/16		**ACTIVITY DATE:** 11/01/2018
STAFF: Sydney Bruestle	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Onsite inspection to verify compliance with MI-ROP-N6035-2017		
RESOLVED COMPLAINTS:		

On November 1, 2018 Michael Conklin and I (Sydney Bruestle) performed an onsite inspection at Delta Solid Waste Management Authority located at 5701 19th Avenue N. Escanaba, Michigan. While onsite we met with Mr. Don Pyle, Landfill Manager. Mr. Pyle was able to give us an overview of past and present operations at the facility, as well as provide us all records required by MI-ROP-N6035-2017.

Facility Description:

The Delta Solid Waste Management Authority (DSWMA) is a municipal solid waste (MSW) landfill. The landfill is more commonly referred to as the "Delta County Landfill" (Delta County LF). The Facility is owned by DSWMA and the City of Escanaba. It consists of 277.9 acres located in the N ½ of Section 22 and the S ½ of Section 15, T39N, R23W, Wells Township, Delta County, Michigan. The stationary source is in a rural setting about 2.5 miles NW of the City of Escanaba and is surrounded by undeveloped areas that are primarily wooded or wetlands. A sports club located to the east is the nearest developed property.

Overall, Delta County LF is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) landfill. A Type II Southern Landfill has been closed since July 26, 2016. A newer Type II Northern Expansion began accepting waste May 18, 2015 and is the current active area. There are two closed Type III landfills which contain only construction demolition waste and fly ash. The Type III cells are not subject to the requirements of the NSPS or NESHAP for Municipal Landfills or Part 70 permitting.

On July 9, 2009, the MDEQ Waste and Hazardous Materials Division sent DSWMA an approval for a construction expansion permit (Northern Expansion). The proposed landfill expansion increased the maximum design capacity of the landfill site from 1.65 million cubic yards to 7.85 million cubic yards (6.0 million cubic meters). Since the landfills design capacity exceeds 2.5 million Mg/2.5 million cubic meters the stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 requiring a Title V renewable operating permit.

The newest cell started receiving waste, the facility will begin installation of the active gas collection system summer 2019.

While onsite I performed a compliance evaluation for the following emission units and flexible groups, the requirements are outlined in MI-ROP-N6035.

EU-LANDFILL:

***Description:* This emission unit represents the general Municipal Solid Waste (MSW) Landfill in which the collected landfill gas is sent primarily to a treatment system.**

***Pollution Control*: Landfill gas is collected by an active gas collection system and is routed to an on-site Open Flare (EU-OPENFLARE).**

Emission Limits:

Methane Concentration: 500 ppm above background level (per calendar quarter)

Actual: Mr. Pyle was able to show me records of the most recent quarterly surface scan performed on October 19, 2018 (October 2018- December 2018). All levels of methane were below 500 ppm. Mr. Pyle gave me a copy of the results (attached to the hard copy of this report).

Design/Equipment Parameters: The permitee shall have a collection and control system that captures the landfill gas generated within the landfill. In Compliance: gas collection is routed to a flare.

Testing/Sampling:

- The permittee conducts surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals on a quarterly basis. The last scan was done October 2018. The Facility uses a portable monitoring device (SC. V. 1., SC. V.2)
- The Facility has not observed an exceedance during a quarterly surface monitor scan

Monitoring/Recordkeeping:

- The facility has a program to monitor monthly for cover integrity and implements cover repairs as necessary (SC.VI. 1)
- The facility maintains up-to-date, readily accessible, on-site records of the design capacity report, the current amount of solid waste in place, and the year-by-year waste acceptance rate (SC. VI. 2.)

Reporting:

- *Delta County Landfill Promptly reports deviations and submits semiannual/annual ROP certifications (SC. VII 1-3)*
- *The Facility submitted a south landfill closure report February 01, 2018 (attached to the hard file of this report) (SC. VII. 5)*

Other Requirements:

- *The collection system remains in operation for the closed portion of the landfill. (SC.IX. 1-6)*

EUACTIVECOLL:

Description: This emission unit represents the active landfill gas collection system at the landfill that uses gas mover equipment to draw landfill gas from the wells and moves the gas to the control equipment

Pollution Control Equipment: Open flare is an open combustor without enclosure or shroud (EU-OPENFLARE)

Process/Operational Restrictions:

Delta County Landfill follows the following operational restrictions (SC.III. 1-5):

- In the event the collection or control system is inoperable, the gas mover system is shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere are closed within 1 hour.
- Gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
    - 5 years or more if active
    - 2 years or more if closed or at final grade
- The collection system is operated with negative pressure at each wellhead except under the following conditions:

- A fire or increased well temperature. The facility records instances when positive pressure occurs in efforts to avoid a fire.
- Use of a geo-membrane or synthetic cover.
- A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows

- The Facility operates each interior wellhead in the collection system with a landfill gas temperature less than 55°C and with an oxygen level less than 5 percent.
- The Facility operates the installed collection system in accordance with the provisions of 40 CFR 60.753, 40 CFR 60.755, and 40 CFR 60.756.

Design/Equipment Parameters:

Delta County Landfill meets the following applicable design/Equipment Parameters for EU ACTIVECOLL (SC IV. 1-7.):

- The collection system is designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment.
- Each well or design component in the collection system is placed as specified in the approved design plan. Each well has been installed no later than 60 days after the date on which the initial solid waste has been in place for a period of 5 years or more if active; or 2 years or more if closed at final grade. Gas is collected at a sufficient extraction rate and the system is designed to minimize offsite migration of subsurface gas. The facility monitors gas levels surrounding the property lines.
- Each well has a thermometer.
- Delta County Landfill sites active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas
  - Collection devices within the interior and along the perimeter areas are certified, by a professional engineer, to achieve comprehensive control of surface gas emissions.
  - The following issues have been addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat. (40 CFR 60.759(a)(1), 40 CFR 63.1955(a))
- The gas collection devices are constructed using the following procedures:
  - The landfill gas extraction components are constructed of polyvinyl chloride (PVC)
  - Vertical wells are placed to endanger underlying liners and shall address the occurrence of water within the landfill

Monitoring/Recordkeeping:

Delta County Landfill meets the following monitoring and record keeping requirements (SC. VI. 1-7):

- The facility measures and records gauge pressure in the gas collection system at each individual well head and maintains negative pressure. Corrective action is taken whenever positive pressure exists.

- The facility monitors each well monthly for temperature and oxygen. If an exceedance occurs corrective action is taken within 5 calendar days.
- The facility keeps the following records for the life of the control equipment
    - The maximum expected gas generation flow rate
    - The density of wells, horizontal collectors, surface collectors, or other gas extraction devices
- The facility maintains a plot map showing each existing and planned collector in the system.'
- Delta County Landfill keeps records of exceedances with details of the location and frequency
- The facility maintains the following information:
    - A diagram of the collection system (including well position)
    - The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based
    - Documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material.
    - A sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area.
    - Provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill and provisions for the control of off-site migration.
    - The dates of each well installation

Reporting:

Delta County Landfill reports deviations on an annual and semi-annual basis and submits and ROP certification annually.

EUOPENFLARE:

Description: Open flare is an open combustor without enclosure or shroud. The initial performance testing for the open flare has already been performed and therefore is not required by this table.

Process/Operational Restrictions:

Delta County Landfill follows the following operational restrictions (SC.III. 1-8):

- The flare is always operated when the collected gas is routed to it.
- The flare operates with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours
- The flare is designed to operate with an exit velocity less than the velocity, Vmax

Monitoring/Recordkeeping:

Delta County Landfill meets the following monitoring and record keeping requirements (SC. VI. 1-5):

- The delta county landfill installed a heat sensing device to indicate continuous presence of a flame
- The facility maintains records regarding the flare type, VE readings, heat content determination, flow rate, and exit velocity determined during the performance test.
- The facility maintains records of the following:
    - Records indicating presence of the flare pilot flame
    - The net heating value of the gas being combusted in the flare
    - The actual exit velocity of the flare
    - The maximum permitted velocity, Vmax

Reporting: Delta County Landfill reports deviations on an annual and semi-annual basis and submits and ROP certification annually.

EU-ASBESTOS:

Description: This landfill is actively accepting or has accepted asbestos waste in the past.

Process/Operational Restrictions:

Delta County Landfill receives asbestos containing waste and meeting the following operational requirements:

- There were no visible emissions where the asbestos containing material is deposited
- Warning signs and an adequate barrier are preset
- The perimeter of the disposal site is fenced in a manner adequate to deter access by the general public

Monitoring/Recordkeeping:

The facility meets the following requirements for all asbestos-containing waste material received (SC. VI. 1-4):

- Maintains waste shipment records that include the following information (copies of the most recent asbestos receivals are attached to the hard file of this report:
    - The name, address, and telephone number of the waste generator
    - The name, address, and telephone number of the transporter(s)
    - The quantity of the asbestos-containing waste material in cubic meters (cubic yards)
    - The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
    - The date of the receipt.
    - As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

- Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record).

- Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area storage.

- Documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection

- The facility maintains records of one the following regarding any active disposal site where asbestos containing materials have been deposited.

  - USEPA Method 22 readings demonstrating no visible emissions from any active disposal site where asbestos containing materials have been deposited. These readings are to be taken for 15 minutes each operating day.

  - Records of the date asbestos waste is received, the amount and type of material that has been used to cover the asbestos waste, and documentation that the cover material was applied

Reporting:

Delta County Landfill reports deviations on an annual and semi-annual basis and submits and ROP certification annually.

EUFURNACE:

Description: Clean burn multi-oil furnace; 250,000 Btu/hr heat output rating; 1.7 gph/hr fuel usage

Emission Limits: 10% Opacity: The visible emissions from the oil furnace were 0% while I was onsite.

Material Limits:

Material	*Content Limit*	*Analysis done February 23, 2018*
Arsenic	5 ppm	Non-detect (reporting limit of 3.5 ppm)
Cadmium	2 ppm	Non-detect (reporting limit of 1.4 ppm)
Chromium	10 ppm	Non-Detect (reporting limit of 3.5 ppm)
Lead	100 ppm	Non-detect (reporting limit of 3.5 ppm
Total Halogens	1000 ppm (or 0.1% by weight)	0.052 % weight
Flash Point	100 degrees F minimum	Greater than 200 Degrees F
Fuel Oil Consumption	1.7 gallons per hour	1.7 gallons per hour

The waste oil meets all material limits.

Process/Operational Restrictions (SV. III. 1-2):

- Delta County Landfill only fires No. 1 and No. 2 virgin fuel oils, or waste oil or used oil fuel that is generated by the applicant, either on-site or off-site, or by household "do-it-yourselfer" used oil generators

- Delta County Landfill of fires waste oil or used oil that is pretreated (i.e. sedimentation, filtration, etc.) to

reduce water, sediment, and low boiling-point components

Testing/Sampling (SC. V. 1-3):

- Once per calendar year Delta County Landfill performs a fuel oil analysis on a representative sample from the water oil tank to verify compliance with the material limits in SC. II. 1-7. The last analysis was done on February 23, 2018, a copy of the analysis is attached to the hard file of this inspection report.

FGCOLDCLEANERS:

Description: 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 prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979, but before December 20, 2016.The Facility

The facility removed the only cold cleaner they had onsite in May 2018. The requirements of FGCOLDCLEANERS will apply to any future units Delta County Landfill may install.

40 CFR Part 60, Subpart WWW

The facility is subject Part 60 subpart WWW. They are currently complying with all requirements of the regulation, including control systems, gas collection systems, maintenance plans, monitoring, and record keeping. At the time of my inspection it appeared the facility was following MI-ROP-N6035-2017 and all other applicable state and federal air quality regulations.

The current active GCCS was required to be installed and operated by Delta County LF under the NSPS Subpart WWW as of April 22, 2012 (30 months after their actual NMOC emissions reached 50 Megagrams (Mg) (55 tons)).

Delta's NMOC emissions are equal to or greater than 50 Mg/year, and they were required to submit an approvable landfill GCCS plan that satisfies the requirements of NSPS Subpart WWW. Some of the requirements of NSPS Subpart WWW require the design plan to specify equipment that can fulfill specific capture and destruction efficiencies that includes reduction of NMOC from a control system by 98 weight percent or from a combustion device to less than 20 parts per million by volume. It is expected that this design plan will include the expanded active landfill gas collection system that will be routed to a landfill gas combustion device. An active system mechanically pulls the landfill gas from the landfill gas wells. Within 18 months after the design plan has been submitted, the equipment specified by the approved design plan shall be installed and operating properly.

NAME _____ DATE 12/17/18 SUPERVISOR _____