DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N240759528

FACILITY: Forest Lawn Landfill		SRN / ID: N2407
LOCATION: 8230 W Forest Lawn Road, THREE OAKS		DISTRICT: Kalamazoo
CITY: THREE OAKS		COUNTY: BERRIEN
CONTACT: John McEvoy , Environmental Manager - Section 1 of ROP		ACTIVITY DATE: 08/25/2021
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Announced Scheduled Inspection. The inspection had to be scheduled since the facility is now Closed.		
RESOLVED COMPLAINTS:		

On August 25, 2021 AQD staff (Matt Deskins) went to conduct a scheduled inspection of the Forest Lawn Landfill (FLL) located in Three Oaks, Berrien County. Staff had to schedule the inspection since FLL is now closed (they ceased taking in waste in January of 2017) and is now considered in Post-Closure care. When FLL was in operation, it was a licensed Type II municipal solid waste landfill and they have a Renewable Operating Permit (ROP No. MI-ROP -N2407-2021) that the AQD has issued to them for their various emission units. The ROP use to contain two sections with section 1 pertaining to the landfill operations and section 2 to a company called APTIM who at one time owned and operated the Leachate Evaporator. Upon Closure of the Landfill, FLL ended their contract with APTIM and took over the ownership of the Leachate Evaporator. However, it is staff's understanding that the evaporator is no longer in use but will remain in the ROP until it is either dismantled/removed or rendered inoperable. The landfill is also currently subject to the following Federal Regulations:

New Source Performance Standard (NSPS) for Municipal Solid Waste (MSW) Landfills promulgated under 40 CFR Part 60 Subparts A and WWW. See "NOTE" under #3 below regarding applicability of WWW moving forward.

Federal Plan Requirements for MSW Landfills promulgated under 40 CFR Part 62 Subpart OOO. The Federal Plan will apply until a State Plan is Approved or the AQD receives delegation for the Federal Plan. Subpart OOO took effect on June 21, 2021 and will be replacing Subpart WWW requirements. In the future the Federal Plan Requirements may be rolled into the ROP.

National Emission Standard for Hazardous Air Pollutants (NESHAP) for MSW Landfills promulgated under 40 CFR Part 63 Subparts A and AAAA. Also referred to as Maximum Achievable Control Technology (MACT). NOTE: An updated version of this regulation takes effect on September 27, 2021. However, the current AAAA still references WWW so technically the WWW requirements still apply until the September 27, 2021 date.

NESHAP for Asbestos promulgated under 40 CFR Part 61 Subparts A and M.

The purpose of the inspection was to determine FLL's compliance with Renewable Operating Permit (ROP No. MI-ROP-N2407-2021) as well as any state or federal air regulations. Staff had scheduled the inspection with John McEvoy (Environmental Manager) for 10:30 a.m. so staff departed the district office at approximately 8:55 a.m.

Staff arrived at the FLL at approximately 10.20 a.m. and proceeded into the office area parking lot since the gate was open. Staff noticed quite a few vehicles, people, and heavy equipment in the parking lot area. Staff proceeded to park their vehicle and before they got out John had walked over to greet staff. Staff then asked John if Geed Salam or anyone else from their consulting group would be joining us on the inspection. John said that both Geed and Summer Hitchens of Impact Environmental weren't going to attend but Geed could be reached by phone if necessary. Staff then thanked John for coming to meet with staff and staff mentioned that similar to the last inspection, they might not be there that long since

Summer had already sent staff all the records that staff would have normally reviewed on site when it was open. Staff mentioned that they would probably just be taking a tour of the landfill and checking out the various emission units contained in the ROP. John said that wasn't a problem and that he blocked out most of his day for the inspection just in case. John said that he is usually at the site once per week to check on things anyway. The following is a summary of staff's discussions with John prior to going on a tour of the landfill.

Staff asked John about all the activity that was currently going on at the site and John mentioned that they were just finishing up some landfill gas collection system work. He said that they re-drilled 9 wells that they were having oxygen issues with along with running some new laterals due to vacuum issues. Staff then asked what they were doing with the waste from those activities and John said it is being put in roll-off containers and hauled away to County Line Landfill in Indiana.

Staff then asked John about the Enhanced Monitoring Plan (EMP) and the wells with higher temperatures associated with it. NOTE: As mentioned in previous inspection reports, starting back in 2010 there have been concerns regarding numerous wells that have exhibited elevated temperatures well above NSPS requirements. After initial internal discussions between AQD, the Materials Management Division of EGLE (MMD), and the EPA, followed by a meeting with landfill personnel and their consultant, we approved them to operate the wells at the higher temperatures but they had to develop an EMP for them for which they did. According to John, the wellfield area covered by the EMP has stayed stable and the most recent revision to the EMP, submitted in August of 2019, still reflects current conditions. Staff and John then discussed the new federal landfill regulations and staff mentioned that moving forward, any wells that exceed the temperature requirement of the new regulations and that aren't covered by the current EMP, will have to follow the new procedures outlined by the new regulations. John mentioned that he understood that and will make sure to relay that information to their consultant as well. Staff then went on a tour of landfill and asked John some additional questions about current operations. The responses to those questions will be included under the various emission units of this inspection report.

The following is a summary of the ROP emission units for the landfill, the things staff noted, and the landfill's compliance status with them.

EULANDFILL: Appears to be in COMPLIANCE.

The facility has an approved active gas collection and control system (GCCS) as well as associated control systems (Open Flare). As mentioned earlier, the leachate evaporator isn't in use anymore but when it did it typically utilized ~400 to 500 scfm of landfill gas. The facility was conducting quarterly surface emissions monitoring (SEMS) as required but they recently switched to doing it semi-annually (Started this in January of 2021) as allowed under the NSPS WWW UAR cited below:

40 CFR 60.756(f)

"Each owner or operator seeking to demonstrate compliance with §60.755(c), shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in §60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring."

It appears that they are keeping the appropriate records as required. FLL contracts with SCS Consultants (SCS) to do their SEMS and they use a Landtec SEMS 5000 monitor to do so. Staff had reviewed the previous 4 reports of the SEMS monitoring that Summer Hitchens had

e-mailed him. The records reviewed included instrument calibration data, a map showing the route traversed while doing the monitoring, weather conditions, etc. Staff did not note any issues with their monitoring and no exceedences of 500 ppm were documented. The facility and or their consultant monitors cover integrity on a monthly basis and takes care of any issues if necessary. The facility has a record of the amount of waste in place but they don't need to track the year by year acceptance rate anymore since it is now closed. The facility has a Startup, Shutdown, and Malfunction Plan (SSM) which staff has looked at during previous inspections but did not ask to look at. It has never needed to be updated. The facility has been submitting the required Annual and/or Semi-Annual ROP Reports as well the SSM reports to the district office on time. A Closure Report for FLL was submitted as well back on September 19, 2018 (Date Received by MMD).

EUACTIVECOLL: Appears to be in COMPLIANCE.

The facility has an approved GCCS that is constructed out of appropriate materials (either Carbon Steel, Stainless Steel, HDPE, or PVC). Prior to closure, the high temperature wells mentioned earlier were re-drilled and had Carbon Steel well casings and some had Stainless Steel wellheads installed on them. As part of the landfill's closure, they submitted a Closure Report that included drawings showing the locations of all piping and wells in the GCCS system. They have 174 gas wells that are monitored. The wells in the collection system are equipped with sampling ports and temperature gauges as required. FLL also contracts with SCS to conduct their monthly well head monitoring and they use a GEM 5000 that records static pressure (vacuum), oxygen, and temperature as is currently required. John said that their contract with SCS requires them to do the well monitoring bi-monthly to better keep an eye on the conditions of the wellfield. If any of the required well head monitoring parameters should exceed NSPS permitted limits, the timeframe for corrective actions appears to be adhered to. If corrective actions cannot be completed in the timeframes allowed, alternate operating scenarios and/or compliance timelines for compliance are being requested. Staff had reviewed the last 6 months of wellfield data that Summer had e-mailed previously. As mentioned earlier, the landfill developed an EMP back in 2010 for wells with elevated temperatures and it has been updated as necessary. The EMP reports are submitted quarterly to us. All collected landfill gas is being routed to a control system which is now just an open flare. A site map and spreadsheet are being maintained indicating the location and depths of asbestos as required. The required Annual and/or Semi-Annual Reports as well as the SSM reports are being submitted on time.

EUAIRSTRIPPER: Appears to be in COMPLIANCE.

The Air Stripper was shut down in April 2021 and they have now entered into a 3-year monitoring period which was allowed by MMD. Prior to it being shut down, the facility was conducting monthly visible emissions monitoring as required. The facility was also monitoring and recording influent and effluent water flow rates into and from the air stripper on a weekly basis. The facility was also sampling the influent and effluent in the timeframes required and keeping track of yearly VOC emissions. The facility was monitoring and recording the hours of operation on the air stripper. Most of the information staff reviewed was also required by the DEQ's Water Resources Division for their Discharge Monitoring Reports (DMR). Historically, SCS would monitor the system and Golder and Associates would do the sampling that is required on the system. John had said that Vinyl Chloride was the main contaminant present and only in a very minute quantity.

EUOPENFLARE: Appears to be in COMPLIANCE.

The facility appears to be operating the flare properly and any time collected gas is routed to it. The flare was manufactured by LFG Specialties and it is equipped with a ultra-violet flame sensor along with various alarms that shut down the flare depending on the conditions. If the flare does shut down, a pneumatic valve closes that prevents landfill gas from being

discharged directly out the flare. The flare is equipped with a circular chart recorder that records the flow and temperature of the flare. The flare is also equipped with a digital recorder as a back-up which can record up to six months of data. Staff noted during the inspection that the flow to the open flare was approximately 2,750 scfm and the combustion temperature was 910 degrees Fahrenheit. The blower system was pulling approximately -43.2 inches of vacuum on the wellfield. John said that they still have John Zink come out on a semi-annual basis to service the flare. John also said that they still use a company called Dreisilker Electric Motor who come out on a quarterly basis to do vibration tests on the blowers and their motors to make sure everything is alright. The flare will still be in use for years to come so no equipment removal report has needed to be submitted to date.

EUASBESTOS: Appears to be in COMPLIANCE

The facility has warning signs, fencing, and/or natural features surrounding the property which should adequately deter access by the general public. Prior to closure, FLL had maintained all the required records which included: shipping records (manifests) of the generator, transporter, and quantity of asbestos accepted. The facility has a map along that indicates the depth and location of all the buried asbestos. The facility submitted a copy of a map showing asbestos locations and depths in their closure report to MMD.

EUEVPASYS (Leachate Evaporator): Appears to be in COMPLIANCE.

The leachate evaporator, as mentioned previously, is now owned by Forest Lawn Landfill but is not used. John said it was officially shutdown/mothballed back on December 31, 2019 and it hasn't been used since. John said that all leachate is trucked off site now and they average 4 trucks a day Monday through Friday. Each load is about 6,100 gallons and it is hauled to a wastewater treatment plant down in Lafayette, Indiana.

INSPECTION CONCLUSION:

Overall, FLL appears to be in COMPLIANCE with both federal and state air regulations contained within ROP No. MI-ROP-N2407-2021 at the present time. Staff thanked John for his time and departed the facility at approximately 1:00 p.m.

NAME Matt Deshon DATE 9-1-21 SUPERVISOR RJL 9|20|21