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MANILA

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

A806550244

FACILITY: Disposal and Recycling Technologies		SRN / ID: A8065
LOCATION: 8647 Lyndon, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Don Kaniowski , Process Supervisor		ACTIVITY DATE: 08/16/2019
STAFF: Stephen Weis	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Compliance inspection of the Clean Earth facility (formerly DART) in Detroit. The Clean Earth facility is scheduled for inspection in FY 2019.		
RESOLVED COMPLAINTS:		

Location:

Clean Earth (A8065)
8647 Lyndon Street
Detroit 48238

Date of Activity:

Friday, August 16, 2019

Personnel Present:

Steve Weis, EGLE-AQD Detroit Office
Jeff Moncman, Plant Manager, Clean Earth Detroit
Patrick Magasark, Maintenance Supervisor, Clean Earth Detroit
Don Kaniowski, Clean Earth Detroit

Purpose of Activity

A self-initiated inspection of the Clean Earth facility in Detroit was conducted on Friday, August 16, 2019. Disposal and Recycling Technologies, Inc. of Detroit, which was acquired by Clean Earth in September of 2018, was on my list of sources targeted for an inspection during FY 2019. The purpose of this inspection was to determine compliance of operations at the Clean Earth facility with applicable rules, regulations and standards as promulgated by Public Act 451 of 1994 (NREPA, Part 55 Air Pollution Control), and with applicable Federal standards.

Facility Site Description

The Clean Earth facility is located on the south side of Lyndon Street about ¼ mile east of Wyoming Avenue, across from the intersection of Lyndon and Wisconsin Streets. The facility is located on a roughly 2.4-acre parcel, which includes a large building on the western half of the parcel that contains the facility offices, processing area, storage and warehousing. The east portion of the property is a paved area that is the loading and offloading area.

The properties along Lyndon in the vicinity of the Clean Earth facility contain various commercial and light industrial facilities. Universal Bearing Company (8521 Lyndon) is located directly to the east of Clean Earth, and VernDale Products, Inc. (SRN P0866) is located to the east of Universal. The property to the south and southwest of the facility is a Wayne County Road Commission Roads Maintenance Yard.

There are extensive residential areas to the north and south of the Clean Earth facility. The nearest residences to the north of the facility are located to the north of the businesses, on the north side of Lyndon, approximately 75 yards from Clean Earth's north property line. On the south side of the facility there is a narrow, vegetated buffer area that looks to be a former rail right-of-way. The closest residences to the south are located just over 100 yards away.

Facility Operations

The Clean Earth facility in Detroit was formerly owned and operated by Disposal and Recycling Technologies, Inc., or DART. Regarding DART's history at this location, I found a press release dated November 22, 2012 that provided that DART was "Headquartered in Michigan and servicing environmental customers throughout the Midwest for the past 8 years at DART's treatment and recycling plant in Detroit...". The press release also stated that the DART Detroit facility operated as a waste treatment and ethanol recycling plant, which converted alcoholic beverages and products into fuel grade ethanol.

There is information in the DART facility file in the form of an e-mail message from EGLE Office of Waste Management and Radiological Protection staff (then referred to as DEQ Waste and Hazardous Materials Division) written in March of 2006 that stated that the DART facility opened about a year prior to that date. There are also several references from the Waste staff to the DART facility's treatment and processing of used oil. It had been communicated to me in the past by DEQ/EGLE Waste staff that the DART facility's primary activity was used oil treatment and processing.

Clean Earth purchased DART in September of 2018. The purchase included DART's two facilities – the Detroit facility, and a RCRA Part B hazardous waste treatment, storage and disposal facility (TSDF) in Charlotte, North Carolina. A press release from Clean Earth's website dated September 12, 2018 that provides details about the acquisition of DART by Clean Earth is attached to this report for reference. The company website (www.cleanearthinc.com) provides the following description of the Clean Earth facility in Detroit:

"This Clean Earth location in Detroit, Michigan provides a variety of services for managing, treating and recycling non-hazardous industrial waste streams including wastewater treatment, PFAS wastewater treatment, waste oil treatment and disposal, sludge treatment, and drum/container processing.

In addition, Clean Earth's Detroit location also provides product destruction and reclamation to securely store, destroy and/or shred obsolete, damaged, outdated products for off-spec or otherwise unsalable consumer products.

Clean Earth provides companies an environmentally conscious product destruction service. Plastic, cardboard, glass and aluminum packaging can be recycled, and shredding and repacking technologies are utilized to provide a variety of alternative fuels and products such as ethanol, bio-diesel, oils, soaps, lotions and alternative fuel."

Clean Earth was acquired in July of 2018 by Harsco Corporation, which is headquartered in Pennsylvania. Clean Earth operates as a division of Harsco (the other divisions are Harsco Environmental and Harsco Rail).

During my site visit, I was told that the Clean Earth facility in Detroit is a non-hazardous waste treatment facility. At the time of my visit, the company was still setting up some aspects of the facility. I was told that a wastewater treatment process for treating wastewaters containing PFAS (per- and polyfluoroalkyl substances) is being constructed. The engineering plans for the process have been submitted to the Great Lakes Water Authority (GLWA) for their review. The facility treats liquid industrial waste, the majority of which is leachate. The facility has an on-site laboratory which is used to analyze and characterize waste. The liquid waste is treated using carbon filtration and a Lamella clarifier for solids removal. Leachate is treated using chemicals (peroxide and hypochlorite, added using a metering pump) and activated carbon. The facility does not use heat to treat the liquid waste. There are currently 10 tanks located within the building structure that are used to treat liquid waste.

There is a 250,000-gallon galvanized steel, bottom-fill receiving pit that is currently used to receive catch basin collectate. The collected material is allowed to settle in the pit, with the water portion being pumped out for discharge and the solids collected for disposal. I was told that Clean Earth may cease accepting catch basin material and usage of the receiving pit.

Clean Earth also engages in commodity recycling at the facility, such as beer and aluminum.

There are currently 15 employees at the facility, and the facility potential operates on a 24 hours per day, 7 days per week schedule.

Inspection Narrative

I arrived at the facility at 11:40am. I was met by Jeff Moncman, Plant Manager and Patrick Magasark, Maintenance Supervisor of Clean Earth Detroit. We went to the conference room in the office portion of the

facility, and we were joined by Don Kaniowski of Clean Earth Detroit.

We began the site visit by discussing the facility background. I was told that the Clean Earth purchased the facility in September of 2018, and that Clean Earth, itself, was purchased by Harsco Corporation, which is headquartered in Pennsylvania, in July of 2018. I was told that the facility was fully operational in terms of accepting and treating liquid waste and material collected from catch basins. An example of the catch basin material is material that is collected by National Industrial Maintenance Inc.'s vacuum trucks. I was also told that Clean Earth may cease accepting this type of waste, and may cease using the 250,000-gallon receiving pit that is currently used to accept and treat this type of material at the facility.

I was told that Clean Earth has been tearing out old equipment in the building since June or July of 2019, including a filter press, a couple of tanks, and a carbon filter. The Clean Earth staff also told me that a wastewater treatment process for treating wastewaters containing PFAS is being constructed. At the time of my site visit, I was told that the engineering plans for the PFAS treatment process have been submitted to GLWA for their review.

Facility staff told me that the facility primarily handles liquid industrial waste, the majority of which is leachate. There is a holding tank outside of the facility's building structure, and holding and processing tanks inside of the building, 10 of which are currently in use. There is currently no heating of the liquid waste as part of the treatment process. The treatment tanks are vented to a packed tower scrubber. It was explained that liquid waste is treated using carbon filtration and a Lamella clarifier for solids removal, and that leachate is treated using chemicals (peroxide and hypochlorite) and activated carbon. Don explained that dissolved air flotation (DAF) and air sparging are not used as part of the liquid waste treatment process. Don said that the facility's effluent discharge permit with GLWA currently allows the facility to discharge 700,000 gallons per day to the municipal sewer system.

We left the conference room and walked around the facility. We first observed some of the tanks inside of the building, and the scrubber. The scrubber is a Monroe Environmental packed tower scrubber (with a serial number of 19-7728-1).

I was told that there is one boiler in the building that came with the property, and that is not currently functioning. We took a look at the boiler, and I copied the information from the boiler plate – the unit is a Kewanee model H3S-200-GO2, and it has a listed maximum rated heat input capacity of 8.369 MMBTU per hour. While we were looking at the boiler, I asked if there are any emergency engines/generators at the facility; I was told that there are none.

We walked around the receiving pit area, and in the warehouse area of the facility. I was told that the facility is also engaged in commodity recycling, and I was given the examples of aluminum and beer as commodities that are recycled at the facility.

After we concluded our walk-through of the facility, we had a conversation summarizing the site visit. The DART facility did not have any AQD permits. I was told that Clean Earth is still setting up the PFAS waste processing equipment. I advised Clean Earth staff that they may need to obtain an AQD permit to address the operation of the treatment equipment, particularly the PFAS treatment equipment. The Clean Earth staff said that they would let me know when they knew more specific information about the process equipment that will be installed at the facility.

I left the facility at 1:10pm.

Permits/Regulations/Orders/Other

Permits

As mentioned in the last section of this report, the DART Detroit facility did not have any active AQD Permits to Install (PTIs) addressing the operations at their facility. As of the date of the site visit and the writing of this report, Clean Earth does not have any active PTIs, and has not applied for a PTI.

The waste treatment operations at the Clean Earth facility could meet exemption criteria as put forth in Michigan Administrative Rules (Rule(s)) 278 – 291. Rule 285(2)(m) exempts "lagoons, process water treatment equipment, wastewater treatment equipment, and sewage treatment equipment..." from the requirement to obtain a PTI, with the exception of "lagoons and equipment primarily designed to treat volatile organic

compounds in process water, wastewater, or groundwater, unless the emissions from the lagoons and equipment are only released into the general in-plant environment", sludge incinerators and dryers, and heat treatment processes. Clean Earth does not utilize any incinerators or dryers, and they do not currently heat the waste that they accept as part of the on-site treatment process. The treatment equipment and process does not appear to be specifically designed to treat volatile organic compounds – any used oil that is treated has a relatively low VOC content, and leachate is treated for a variety of parameters, from solids/sediment removal to the removal of metals, nitrogen, sulfur compounds, chlorides and volatiles. Regarding the proposed PFAS treatment process, some literature about PFAS compounds classifies them as semi-volatile organic compounds. Emissions from the treatment equipment at the Clean Earth facility may be low enough to meet the exemption criteria in Rules 290 and 291. To this point, Clean Earth has not provided information to demonstrate the applicability of permit exemption criteria in accordance with Rule 278a; EGLE-AQD has also not requested such a demonstration, as referenced in Rule 278a(2).

There are facilities that have equipment and operations similar to that at Clean Earth that have a PTI, but often the permits were issued to address odor concerns at those facilities. To this point, there are no ongoing odor issues associated with the Clean Earth facility.

As mentioned previously, there are no boilers in use at the facility. There are some ceiling-mounted heaters around the facility that would meet the PTI exemption criteria put forth in Rule 282(2)(b); they are natural gas-fired, and the maximum rated heat input capacity of these units is well below 50,000,000 BTU per hour.

I contacted staff with EGLE's Office of Waste Management and Radiological Protection (OWMRP) to make sure that they know about the pending PFAS compound treatment process at the Clean Earth facility. I received a response from Jeanette Noechel of OWMRP in which she let me know that she is planning a visit to and inspection of the facility, and indicated that I could join in. Clean Earth will be asked to prepare a demonstration of their air permitting status in relation to the operations (present and proposed) at their Detroit facility.

Compliance Determination

Based upon the results of the August 16, 2019 site visit, the Clean Earth facility in Detroit appears to be in compliance with applicable rules and regulations based on current operations. There will be follow up with the facility regarding their air permitting status.

Attachments to this report: A copy of the press release from Clean Earth's website that provides details about the acquisition of DART by Clean Earth; a copy of information from Clean Earth's website regarding the Detroit facility.

NAME

Steve Wes

DATE

1/13/20

SUPERVISOR

JK