Page 1 of 2

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

B618932871				
FACILITY: City of Charlotte Waste Water Treatment Plant		SRN / ID: B6189		
LOCATION: 1005 Paine Dr., CHARLOTTE		DISTRICT: Lansing		
CITY: CHARLOTTE		COUNTY: EATON		
CONTACT: Matt Griffith, Superintendent of Utilities		ACTIVITY DATE: 12/14/2015		
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR		
SUBJECT: Self-initiated inspect odor control equipment.	ion to determine compliance with the City of Charlotte's	s 2 PTI's for a waste digester gas burner and ozone		
RESOLVED COMPLAINTS:				

Inspected by: Michelle Luplow (author) and Dave Thompson (Permit Engineer) Personnel Present: Matt Griffith, Superintendent of Utilities (mgriffith@charlottemi.org)

<u>Purpose:</u> Conduct an unannounced, self-initiated compliance inspection by determining compliance with City of Charlotte's Permits to Install (PTI) Nos. 472-77 (ozone generators) and 563-78 (digester waste gas burner). There are no records on file that the Air Quality Division (AQD) has ever inspected this source in the past.

**Facility Background/Regulatory Overview:** The City of Charlotte Wastewater Treatment Plant (WWTP) treats the city's domestic and industrial wastewater before discharging to the Battle Creek River. Treatment is done using preliminary treatment; primary, secondary and tertiary clarifiers; digesters; trickling filters and a grit tank. Matt Griffith, Superintendent of Utilities, said that they no longer use chlorine to disinfect the water; UV light is used instead. He said the ozone odor control equipment permitted under PTI 472-77 is gone, and therefore I will request that PTI 472-77 be voided. Replacement odor control is a packed bed scrubber which uses a combination of reaction with scrubber chemicals and a packed bed to remove odors. This replacement control technology is not exempt from the need to obtain a PTI because Rule 285(m)(i)(iv) does not allow odor control equipment to be installed without a permit. I will request that the City of Charlotte apply for a PTI for the new control equipment within 2 weeks of the signature date on this report.

**Inspection:** This was an unannounced self-initiated compliance inspection. At approximately 1:30 p.m. on December 14, 2015, Dave Thompson and I met with Matt Griffith. I provided M. Griffith with a DEQ "Environmental Inspections: Rights and Responsibilities" brochure, a July 2014 Permit to Install Exemption Handbook, and the Boiler NESHAP outreach brochure for the new Boiler MACT navigation tool.

# Other Equipment located onsite

Table 1. Emergency Generators

Engine	<u>HP</u>	BTU/hr	<u>Fuel</u>	PTI Exemption	Federal Regulation
Onan Model # 2000DFP- 17R19030L	355	903,193	Diesel	NA	Area Source MACT Subpart ZZZZ

Table 2. Boilers

<u>Boiler</u>	MMBTU/hr	Fuel	PTI Exemption.	Installation Date	Federal Regulation
Peerless Model# 7FDA-1642	1.202	Methane Gas (from digester), but has capacity to burn fuel oil no. 2 (at 8.5 gal/hr)	TBD	1978	Exempt from Area Source Boiler MACT JJJJJJ (gas-fired boiler, exempt); Exempt from NSPS Subpart Dc; under 10 MMBTU/hr
Peerless Model# 7FDA-1643	1.202	Natural gas only used, but has capacity to burn fuel oil no. 2 (at 8.5 gal/hr)	Rule 282(b) (ii)	1978	Exempt from Area Source Boiler MACT JJJJJJ (gas-fired boiler, exempt); Exempt from

		NSPS Subpart Dc;
		under 10 MMBTU/hr

#### PTI No. 563-78 for a digester waste gas burner

M. Griffith showed us the burner, which is similar in appearance to a very short candlestick flare. He explained that they take it out of service, generally from October to March (this year they took it out of service the week of 11/24/15). for the winter because not much methane gas is generated from the digesters during the winter months. The digester waste gas burner is used only to burn off the residual methane gas that the methane boiler doesn't have the capacity to burn. The only permit requirement for this unit is that visible emissions should not be greater than 20% opacity. Because the unit was not operating I was not able to verify compliance with this condition.

#### Boilers

The WWTP has 2 boilers: one is fired on methane, the other on natural gas. Both are used to heat water for the facility in addition to heating the digesters (which are maintained at 95-96°F). The methane boiler burns methane gas that is generated from the water treatment digesters and does so throughout the year. During the winter months the methane gas production decreases and this is when the facility initiates the operation of the natural gas –fired boiler (in addition to the methane-fired boiler) to maintain facility hot water/heat and digester temperatures. Both boilers have the capability to run on fuel oil no. 2, but according to M. Griffith, neither of them has used fuel oil no. 2.

The natural gas-fired boiler is exempt per Rule 282(b)(ii) for fuel-burning equipment used for service water heating which burn a combination of no. 2 fuel oil and natural gas and are rated at or below 20 MMBTU/hr. The City of Charlotte has installed this methane-fired boiler without obtaining an Air Quality permit to install. The boiler may be exempt per Rule 282(g), but the City of Charlotte will have to demonstrate that sulfur dioxide emissions from the boiler do not exceed 1 pound per hour. I will request that the City of Charlotte demonstrate that the methane-fired boiler meets the exemption, and if it does not, the City of Charlotte will be in violation of Rule 201 for failing to obtain a permit to install and a violation notice will be issued.

## Boiler MACT NESHAP JJJJJJ for area sources of HAPs

Neither of the Peerless boilers are subject to the Boiler MACT JJJJJJ; they are exempt because they are considered "gas-fired boilers."

Boiler NSPS (New Source Performance Standard) Subpart Dc (40 CFR 60 Subpart Dc) Neither of the boilers are subject to the NSPS because they are rated at less than 10 MMBTU/hr.

## **Emergency Engine**

## RICE MACT ZZZZ Emergency Engines

Using the EPA's Stationary Reciprocating Internal Combustion Engines (RICE) regulatory navigation quiz (<u>http://www.epa.gov/ttn/atw/rice/output/quiz.html</u>), City of Charlotte's engine is determined to be an existing emergency compression ignition engines less than or equal to 500 HP at an area source of HAP, constructed before June 12, 2006.

Michigan currently does not have the delegated authority to enforce the area source RICE MACT ZZZZ at this time, but I have made the facility aware that this regulation is applicable and enforceable by the EPA.

The City of Charlotte Wastewater Treatment Plant currently is in compliance pending submittal of a permit to install application for the packed bed scrubber for odor control and pending the demonstration that the methane-fired boiler meets exemption

NAME MUCHAN Lugaloro **Rule 282** 

DATE

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

M078432594

81010402004			
FACILITY: GENESYS AMBULATORY HEALTH SERVICES		SRN / ID: M0784	
LOCATION: 3935 BEECHER RD, FLINT		DISTRICT: Lansing	
CITY: FLINT		COUNTY: GENESEE	
CONTACT:		ACTIVITY DATE: 12/17/2015	
STAFF: Nathaniel Hude	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR	
SUBJECT: Building has been de	molished and emission units removed. This site should be	e removed from the inspection list.	
RESOLVED COMPLAINTS:			

I drove to this site and found that the building had been demolished. At one time the site was a hospital which had a ETO Sterilizer (PTI 595-94 which has been voided), three 282(b) exempt boilers, and two number 2 fuel oil fired emergency generators that may have been subject to 40CFR60 JJJJ or 40CFR63 ZZZZ.

This facility does not require further inspections. MACES "Operating Status" has been changed to "Permanently Closed" under the Facility Information tab.

NAME

DATE 12-18-15 SUPERVISOR

.