

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

P053654335

FACILITY: CHARLEVOIX WASTEWATER TREATMENT PLANT		SRN / ID: P0536
LOCATION: 15116 LAKE SHORE DRIVE, CHARLEVOIX		DISTRICT: Cadillac
CITY: CHARLEVOIX		COUNTY: CHARLEVOIX
CONTACT:		ACTIVITY DATE: 07/24/2020
STAFF: Kurt Childs	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: PTI 114-16 Compliance Inspection.		
RESOLVED COMPLAINTS:		

I conducted a compliance inspection of the City of Charlevoix Wastewater Treatment Plant to determine compliance with PTI 116-14 and the air pollution control rules. The Charlevoix WWTP had a history of odor complaints from nearby residents. Numerous upgrades have been made to the plant including the construction of a biofilter for control of odorous compounds from the headworks building, primary clarifier tanks, and sludge tank.

I met with Mr. Randy Wurst, the plant manager. We toured the plant and he explained the operation of the biofilter and identified the different processes it controls. The biofilter is located at the west end of the plant behind the sludge tank. It consists of a small building housing the blower fan, nutrient additive system and process operating controls, and the biofilter itself. The biofilter is a fiberglass vessel containing organic material that is initially seeded with bacteria, irrigated with water and nutrients as needed. Air collected from the headworks building, clarifiers and sludge tank is drawn by way of the blower motor into the biofilter vessel. The biofilter is not equipped with a stack but has a raised cover that creates a gap around the circumference of the vessel through which the air is exhausted.

At the time of the inspection the biofilter was operating and there were mild sulfur-like odors in the immediate vicinity of the biofilter. Odors were not detected off site or elsewhere on the WWTP grounds. According to Mr. Wurst, the biofilter has been operating consistently for the past four years. Maintenance is conducted every 120 days based on a work order (copy attached) that is generated by the facility's maintenance software.

The clarifier tanks and sludge tank have covers that and are vented to the biofilter. In the headworks building the biofilter piping collects air from above the tank that receives wastewater and also from the general in-building air.

The biofilter system was supplied by Envirogen Technologies. The PTI requires that the plant have an O&M plan and follow it including recommended recordkeeping. Envirogen Technologies provided the WWTP with an operations and maintenance program for the biofilter on a CD. The AQD did not have a copy of the plan so I requested that Mr. Wurst send an electronic copy of the plan to me. He provided a copy of the Envirogen Technologies "Operations and Maintenance manual for the Biofilter Odor Control System". Sections 3 and 4 of the manual includes the primary details of the O&M plan (attached). The WWTP's maintenance work order software is programmed to issue scheduled maintenance work orders for the biofilter in accordance with the O&M plan.

During our tour it was noted that the WWTP also has a new emergency generator. It is a 450KW diesel fired unit. Additional information regarding the generator was requested and Mr. Wurst was informed it may require a permit and have additional Federal requirements. Following the inspection Mr. Wurst provided the attached information which indicates the generator engine is exempt from requiring an Air Permit to Install in accordance with Rule 285(g), internal combustion engines that have less than 10 MMBtu heat input. It looks like this engine would have around 4.2 MMBtu/hour max. The engine is subject to NSPS Part 60, Subpart IIII but most of the requirements apply to the manufacturer. I recommended Mr. Wurst review the USEPA RICE compliance assistance tool.

As a result of the inspection and records review it appears that the Charlevoix Wastewater Treatment plant is in compliance with PTI 116-14 and the Air Pollution Control Rules.

NAME _____

DATE _____

SUPERVISOR _____