

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

B554937761

|                                                                        |                               |
|------------------------------------------------------------------------|-------------------------------|
| FACILITY: OWOSSO WASTEWATER TREATMENT PLANT                            | SRN / ID: B5549               |
| LOCATION: 1410 CHIPPEWA TRAIL, OWOSSO                                  | DISTRICT: Lansing             |
| CITY: OWOSSO                                                           | COUNTY: SHIAWASSEE            |
| CONTACT: Timothy Guysky, Plant Superintendent                          | ACTIVITY DATE: 11/15/2016     |
| STAFF: Julie Brunner                                                   | COMPLIANCE STATUS: Compliance |
|                                                                        | SOURCE CLASS: MINOR           |
| SUBJECT: Scheduled Inspection of the Owosso Wastewater Treatment Plant |                               |
| RESOLVED COMPLAINTS:                                                   |                               |

**On November 15, 2016, I conducted an unannounced, scheduled inspection of Owosso Wastewater Treatment Plant (B5549) in Owosso.**

Facility Name and Address:

Owosso Wastewater Treatment Plant  
1410 Chippewa Trail  
Owosso, Michigan 48867

Facility Contact:

Timothy Guysky, Plant Superintendent  
Phone No. 989-725-0562  
Email – timothy.guysky@ci.owosso.mi.us

Last AQD Inspection Date: 8/7/06Compliant @ Last AQD Inspection: YesFacility Description:

The Owosso Wastewater Treatment Plant is a municipal wastewater treatment facility owned and operated by the City of Owosso. The plant serves four (4) municipalities - City of Owosso, City of Corunna, Owosso Township, and Caledonia Township. It is located on the northern side of Owosso beside the Shiawassee River. The area surrounding the plant is mixed use with residential and commercial properties surrounding it.

Commencement of Operations: early 1980sMax Plant Capacity: 18 million gallons per day (mgd)Current Flow Rate: 3 - 4 mgdNo. of Staff: 11Shifts/Day: 3Days of Operation/Week: 24/7Odor Complaints? None recently.

In 2010 to 2012, there were numerous odor complaints from the surrounding area, and a study was performed to determine the cause. The plant was not identified as the problem but hydrogen sulfide (H<sub>2</sub>S) gases leaking from the wastewater collection system were determined to be the main culprit. The pipes in the collection system were lined to prevent gas leakage. Now the biggest source of odors is from the house vents when water has been sitting in the pipes due to lack of flow. Odor complaints from wastewater treatment plants are handled by the Water Division.

Boilers? Yes

The facility had two (2) natural gas-fired boilers. One boiler has been dismantled and the second is being replaced with an air vent system.

Emergency Generators? No

There are plans to install an emergency generator in the next five years. Any emergency generator could be subject to the Maximum Achievable Control Technology (MACT) standard: 40 CFR 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

Depending on the manufacture date of the RICE, New Source Performance Standards (NSPS), 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines or 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines could apply.

Cold Cleaners? No

List of Active Air Use Permits:

Permit to Install (PTI) 228-71 – (A) CARBON REGENERATION FURNACE, (B) SLUDGE INCINERATOR WITH SCRUBBER; Voided PTI 407-75 (8/9/78) - SLUDGE INCINERATOR - 6 HEARTH WITH VENTURI SCRUBBER - RESUBMISSION (SEE 228-71 A&B) – I think information from this PTI was merged into PTI 407-75A which was voided December 7, 1994.

PTI 1008-84 for a lime storage and transfer system.

Regulatory Review:

The facility is a minor source of any regulated air contaminants including hazardous air pollutants (HAPs) and not subject to the Title V Renewable Operating Permit (ROP) program.

Michigan Air Emissions Reporting System (MAERS):

The facility is not required to report emission information to MAERS.

**Inspection:**

Arrived: 9:37 AM

Departed: 11:05 AM

Weather: 45°F, SE@4 MPH, UV Index 1 Low

No visible emissions were observed from any of the facility exhaust stacks upon arrival. No odors were identified surrounding the facility.

A pre-inspection meeting was conducted with Mr. Timothy Guysky (Plant Superintendent). The purpose of my visit and facility operations were discussed. The original idea for the plant design was conceived in the 70s. A grant was received in the early 80s to build an all physical/chemical (no biological) wastewater treatment plant.

The physical/chemical wastewater treatment plant only operated a few months before the design concept was proven to not work. Biological processes were added, and equipment was repurposed in order to make the plant functional. Some of the permits for the physical/chemical process equipment have been voided including the carbon regeneration furnace and fluidized bed sludge incinerator. Mr. Guysky was amenable to voiding the rest of the active permits, PTI 228-71 and PTI 1008-84 for a lime storage and transfer system. The equipment covered by these PTIs is in various stages of being dismantled and removed.

Rule 285(m):

The wastewater treatment plant at Owosso consists of two flocculator/clarifiers for physical removal of solids from the wastewater. Then the wastewater goes to the first of three trickling filter towers. The enclosed towers are a biological treatment process that went on-line in 1986 to remove organics and ammonia from the wastewater. The towers are filled with plastic media on which biomass grows. The first trickling filter is the primary treatment and the other two towers are polishing. The wastewater then goes to chlorination (hypochlorite bleach solution), high pressure filtration, and flows through multiple fiberglass tanks (~15,000 gallons each) that were originally used for carbon treatment. The carbon is no longer in the tanks. The wastewater then passes through clarifiers or settling tanks for aeration and solids removal prior to discharge at the outfall to the Shiawassee River.

Sludge produced from the biological process is dewatered in a large centrifuge and dropped into a dumpster which goes to a landfill. The old filter press, lime storage silos and old sludge incinerator are non-functional. Plans are in place to remove the equipment for the lime process, and old sludge incinerator.

The facility processes are exempt per Rule 285(m) for lagoons, process water treatment equipment, wastewater treatment equipment, and sewage treatment.

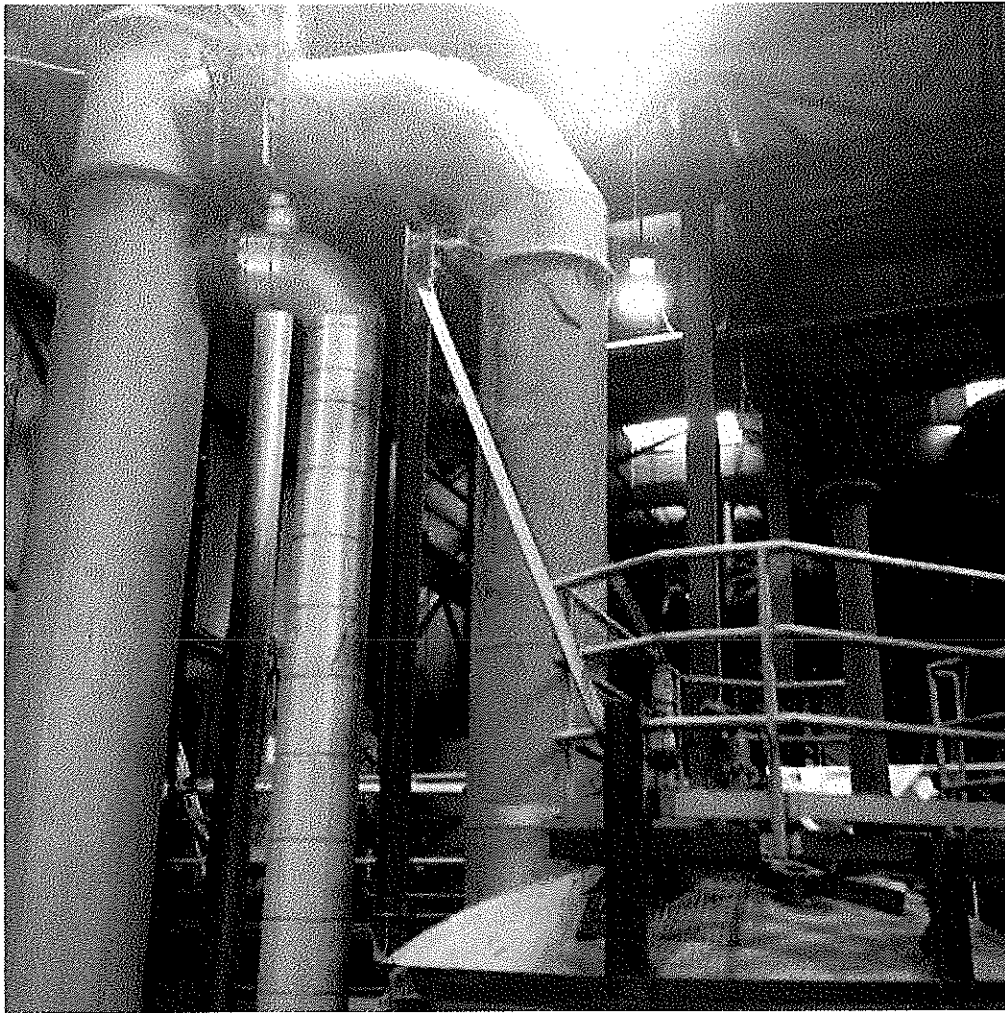
Summary:

The facility appeared to be in compliance with all applicable rules and regulations. All process equipment at the facility is operating under permit exemptions.

PTI 228-71 and PTI 1008-84 were voided on November 16, 2016 as the equipment is no longer in service, and/or in various stages of being dismantled and removed.



Image 1(Lime Storage Silos) : Part of the lime storage system



**Image 2(Sludge Incinerator)** : Disconnected sludge incinerator - to be removed.



**Image 3(Sludge incinerator) :** Old sludge incinerator

NAME Julie P. Bruner

DATE 11/30/16

SUPERVISOR B.M.

