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

N792243939

FACILITY: CHELSEA WWTP		**SRN / ID:** N7922
LOCATION: 6780 MCKINLEY, CHELSEA		**DISTRICT:** Jackson
CITY: CHELSEA		**COUNTY:** WASHTENAW
CONTACT: Ray Schmidt , Water/WW Superintendent		**ACTIVITY DATE:** 03/22/2018
STAFF: Zachary Durham	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Scheduled inspection of equipment exempt from requiring a permit to install, including odor control devices and emergency engines.		
RESOLVED COMPLAINTS:		

Contact

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Purpose

This was a scheduled, unannounced inspection of the waste water treatment facility in Chelsea, MI and associated odor control equipment and emergency backup generators. I arrived on site at about 1:30pm on 3/22/2018 and met with Kurt Kopf, a facility operator.

Background

This facility was previously inspected on 6/30/2011 by Diane Kavanaugh Vetort in regards to odor complaints from the surrounding residents. This inspection was not the result of odor complaints received.

The facility has several carbon canisters on site to control odors from the sludge storage. The two smaller units are gravity fed under normal pressure and are used constantly during daily operations. The larger unit is connected to a blower that has odor laden air pushed through it when the sludge tank is being emptied out. Chelsea has been able to reduce loadout events to once per year with expanded storage that was commented on during the last inspection. The sludge is land applied by injection to crop land.

Three emergency generators (1 x 1988, 1 x 2007, 1 x 2008) are located on site. These units are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) as written in 40 CFR Part 63, Subpart ZZZZ. In addition, the two newer engines from 2009 are subject to the New Source Performance Standard (NSPS) in 40 CFR Part 60, Subpart IIII for Compression Ignition (CI) Rotating Internal Combustion Engines (RICE).

Compliance Evaluation

A rule update in December 2016 has since removed the exclusion of odor control equipment from the PTI exemption rules. The odor control equipment therefore does not require a Permit to Install (PTI) and is exempt under Rule 285(2)(m).

The three emergency engines are all below the requirement to obtain a PTI as each are below 10 MMBtu/hour maximum heat input capacity as stated in exemption Rule 285(2)(g).

Per 40 CFR 63.6590(c)(1) the 2 new (2007 and 2008 model year) area source RICE comply with NESHAP ZZZZ by complying with NSPS IIII.

The existing RICE from 1988 is only subject to NESHAP ZZZZ, of which the State of Michigan does not have delegation for area sources.

NSPS IIII states under 40 CFR 60.4205(b) that owners and operators of emergency stationary RICE shall comply with emission standards per 60.4202 of the subpart, which in this case refers to 60.4202(2). The

emission standards referenced in 60.4202(2) then refer to certification emissions standards set by 40 CFR 89.112, otherwise known as Tier I – Tier III certified engines.

Attached to this report are the engine specification sheets for two engines installed at the site in 2009. The larger one, a 500 kW generator set was manufactured in 2007 and identifies that the engine is certified to US EPA standards per 40 CFR 89 Tier II emission standards. The smaller 200kW generator set was manufactured in 2008 and is certified under 40 CFR 89 Tier III emission standards.

Kurt indicated the engines are maintained according to manufacturer specifications and that regular maintenance and readiness testing are performed by a City of Chelsea mechanic. The three engines were observed to have the following hours on their non-resettable hour meters:

- 1988 250kW Cummins = 501.8 hours
- 2007 500kW Cummins = 1433 hours
- 2008 200kW Cummins = 473 hours

The engines are exercised once per week, usually on Wednesday's.

Compliance Determination

After onsite inspection and review of applicable engine certification documents, I have determined this facility to be in compliance with State of Michigan and federal air quality rules and regulations.

Recommendations

I recommend that this facility maintain it's normal inspection schedule of about every 5 years, or as need in the event nuisance odors are reported.

Image 1(Gravity fed carbon) : This is one of two passive, gravity fed carbon canister that controls for odors on

a continuous basis.

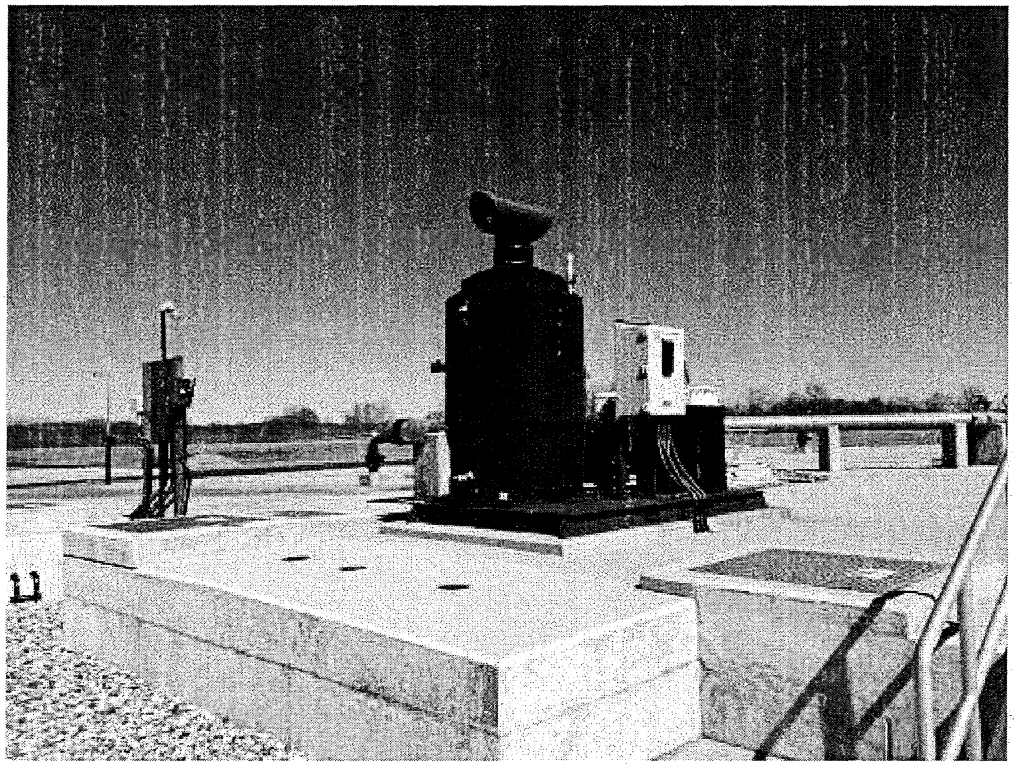

Image 2(Powered carbon) : This is a larger, blower powered carbon canister that potentially odorous air is vented through during unloading of biosolids from the storage tank.

NAME Jack Durham DATE 4/6/18 SUPERVISOR