B3240
MANILA

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

B324032189

FACILITY: FRITZ ENTERPRISES INC		**SRN / ID:** B3240
LOCATION: 23550 PENNSYLVANIA RD, TAYLOR		**DISTRICT:** Detroit
CITY: TAYLOR		**COUNTY:** WAYNE
CONTACT: David Splan ,		**ACTIVITY DATE:** 10/23/2015
STAFF: Usama Amer	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Targeted Inspection of an Opt-out Source		
RESOLVED COMPLAINTS:		

On October 23, 2015, I conducted scheduled annual inspection of the Fritz Enterprises, Inc. Taylor facility located at 23550 Pennsylvania Road, Taylor, Michigan. I was accompanied during my inspection by Mr. David Ludke, Plant Manager, Mr. David Splan, Corporate Vice President, and Mr. Rick Mial, Corporate Environmental Manager.

The company's business at this facility involves ferrous and non-ferrous metal reclaiming with scrap/junk automobiles as the main raw material although other miscellaneous scrap such as household items (lawnmowers, appliances, etc.) are accepted. The facility is located on several acres of open land and is surrounded mainly by medium to heavy industrial and commercial operations. They buy the junked scrap automobile bodies from fixed accounts and the general public. They operate 5 days a week (Monday to Friday) and occasional Saturdays, from about 7 a.m. to 4:30 p.m. On Saturday, they operate from 7 a.m. – 1 p.m. and buy scrap from the public.

Wayne County Permit Numbers C-9509 & C-9510

The facility shreds scrap automobile and other similar scrap materials with metallic components. These materials are feed into an electric motor run hammer mill shredder with water sprays for fugitive dust control. The shredded pieces from the auto shredder unit are sent through a classifier and then to 3 magnetic drums where metal and non-ferrous materials are separated. The separated ferrous materials are then conveyed to a giant vacuum type of equipment known as "Super Z Box", which is controlled by a cyclone separator to further clean out unwanted materials. The non-ferrous material goes to a separate conveyor then into 4 different screens for further sizing. The sized non-ferrous materials converged and dropped into an eddy current separator for further removal of unwanted materials. The non-ferrous product is conveyed into a building and sorted away from the unusable material. A wheel loader dumps material into different stockpiles in the yard for storage until sold for further processing at other locations, while the remnants are sent to the landfill.

The previous activity of adding ferrous containing burnt municipal waste, from the Detroit Incinerator, to its raw material stock has ceased in October, 2010.

This facility recycles/produces 76% ferrous and 4%-5% non-ferrous with the rest being waste. The waste is handled by Republic Waste Services. At the present time, the ferrous material is delivered to various steel mills to be used as raw material for their respective steel making processes. The non-ferrous materials are sent to the Fritz facility in Belleville for cleaning and sorting. Sorted and cleaned aluminum materials are sent to Fritz secondary aluminum facility in River Rouge for melting.

* S. C. 16 stipulates that the PM from the "Super Z Box", controlled by the cyclone separator, shall not exceed 0.009 grain/dry std ft^3, 1.16 lb/hr nor 1.81 tpy.

- The 0.009 grain/dry std ft^3 limit was established in the PTI based on a proposed limit in the PTI application. A copy of the PTI application is available in the company's file. Prior to applying for the PTI, the company conducted a stack test in May, 1993. A copy of the stack test report is attached with this report (Attachment C). The emission factor of 0.009 grain/dry std ft^3, and the stack air flow rate of 21,990 cfm were the initial basis for calculating the annual and hourly PM emission rates.

Attachment A shows that the 2014 annual hours of operations to be 1,388.1 hrs.

(0.009 grains/ft^3) * (1 lb/7000 grains) * (1388.1 hrs/yr) * (21,990 ft^3/min) * (60 min/hr) * (ton/2000 lb) = 0.18 tpy

(0.18 ton/yr) * (2000 lb/ton) * (1 yr/1388.1 hrs) = 1.69 lb/hr

Note: In Attachment A, the facility reported the hourly PM emission rate to be 0.27 lb/hr in compliance with the 1.16 lb/hr limit. However, the facility's PM lb/hr calculated emission rate was in error, as it based the calculations on 8,736 hr/yr rather than the actual annual hrs of operations of 1,388.1 hrs.

Using the above calculations for the hours of operations for January through September, 2015, as reported on Attachment B.2, the facility will be in compliance with the stipulated annual, but in noncompliance with the hourly, PM emission limits.

The hours of operations are not to be reported based on a 12-month rolling time period.

The annual PM emission rate = 0.913 tpy < 1.81 tpy

(0.913 ton/yr) * (2000 lb/ton) * (1 yr/1075.87 hrs) = 1.7 lb/hr

1.7 lb/hr is in noncompliance with the PM limit of 1.16 lb/hr stipulated in Special Condition No. 16 of Wayne Co. Installation Permits C-9509 and C-9510. Therefore, a VN will be issued to the company to address this noncompliance.

Attachments B.1 & B.2

No visible emissions were observed from the cyclone separator; thus, the company is in compliance with S. C. 17.

S. C. 18 is omitted.

The cyclone separator is installed and operating properly; thus, the company is in compliance with S. C. 19.

The company has and implements a fugitive dust emission control program; thus, the company is in compliance with S. C. 21.

There is no yearly throughput limit. The highest tonnage recorded for March, 2014 was 1255 tons, and for February, 2015 was 1458 of material processed through the Super Z box, which were below the permit limit of 100 long tons (224,000 lbs). ; The company is in compliance with S. C. 22.

I did not evaluate the stack height requirement in S.C.23.

No visible emissions were observed from the roadways, parking lot or the storage piles; thus, the company is in compliance with S. C. 24. A copy of the fugitive dust plan is available in the Company's file. A sample of the daily records of sweeping the roadways is included in attachment D.

The highest operating hours per day (based on a monthly total of days ran and hours ran excluding downtime) were 8.39 hours/day in November 2015, and 7.66 in February, 2015, which were below the permit limit of 10 hours per day. The total yearly hours of operation were 1404 hr/yr for 2014, and 1076 hrs thus far in 2015. These annual operating hours are below the permit limit of 3,120. This information indicates compliance with S.C. 25. Attachments B.1 & B.2

S.C. 26 – 28 are not applicable at this time.

Wayne County Permit Numbers C-11358 & C-11359

This permit was issued for a previous 2 stationary diesel engines (2,000 HP & 1,200 HP) that ran a miscellaneous shredder, a sorting screen and a casting operation. The purpose of these permits was to exempting the facility from Title V requirements. These engines were grandfathered, but the facility applied for an air use permit for the purpose of limiting their potential NOx emissions to below the major source threshold.

Both engines were shut down in 2001. The 2,000 HP engine and the casting and the miscellaneous shredders were removed from the site permanently in 2006/2007; therefore, Special Condition no. 26 is now obsolete. The 1,200 HP engine has been dismantled, but not removed. Therefore, this permit will remain active until the engine is completely removed. According to Mr. Splan, there are no emergency generators on site.

All the special conditions of these permits are considered obsolete.

CONCLUSION

Based solely of evaluation of permits C-9509 and C-9510, the facility was found to be in noncompliance with the hourly PM emission limits. Therefore, a VN was issued to the company, on October 29, 2015, to address this noncompliance. The VN stipulated a response to the noncompliance by November 19, 2015.

AMENDMENT

The VN of 10/29/15 is RESOLVED

On 11/18/15, the company provided accurate calculations of the PM hourly emission rate, which confirmed compliance with the 1.16 pounds per hour limit stipulated in Special Condition No. 16 of Wayne Co. Installation Permits C-9509 and C-9510. See Attachment E.

NAME Sam Amer DATE 11/19/15 SUPERVISOR JK