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MAWILA

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

P055834164

FACILITY: ADAMO DEMOLITION CO - FINTEC 1107 CRUSHER		SRN / ID: P0558
LOCATION: 320 E SEVEN MILE ROAD, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Denise Danneels, Office Manager		ACTIVITY DATE: 03/31/2016
STAFF: C. Nazaret Sandoval	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Targeted Inspection for FY 2016		
RESOLVED COMPLAINTS:		

**I. FACILITY BACKGROUND**

Adamo Demolition Company (hereinafter Adamo) is part of the Adamo Group with headquarter in Southeast Michigan at 320 East 7 Mile Road, Detroit MI 48203. Adamo's main business is the demolition of residential, industrial and commercial structures. The company owns heavy machinery utilized to conduct demolition work.

One piece of equipment (which is the subject of this inspection) is a Non-Metallic Mineral Portable Crushing Plant identified as the Fintec 1107 Portable Jaw Crusher. The Fintec 1107 operates under the General Permit to Install (PTI) No. 101-10 issued on April 29, 2010 by the Department of Environmental Quality (DEQ), Air Quality Division (AQD). The PTI was issued based on the information provided by Adamo on the General Permit to Install Application form EQP5756, certified by the applicant for its accuracy on April 23, 2010. According to that information, the maximum rated capacity for the Fintec 1107 portable crusher shall not exceed 75 tons per hour. The equipment is a "stand-alone" portable primary crusher powered by a diesel engine. The equipment can be relocated more than once within a year period and the frequency and duration of the operations is determined by the type of projects and the scope of the jobs.

**II. INSPECTION NARRATIVE**

On March 31, 2016, staff from the DEQ-AQD conducted an announced inspection of the Fintec 1107 Portable Jaw Crusher. The purpose of the inspection was to determine Adamo's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; and the conditions of the General Permit to Install (PTI) No. 101-10.

On the date of the inspection the Fintec 1107 was not in operation, it was stored in the building's garage yard. Consequently, AQD staff could not evaluate compliance with the process and operational conditions and the visible emission limits (Opacity Limits) established in the PTI.

The inspection included a meeting with Ms. Denise Danneels, General Office Manager at Adamo. The original permit application submitted to AQD in 2010 and the PTI requirements were discussed during the meeting. AQD staff requested production records and other pertinent information necessary to evaluate compliance with the permit conditions.

Ms. Danneels indicated that the crusher has not been used in 2016. She confirmed that the last time the equipment was in operation was on December 2015, as it had been indicated by the relocation notices received by AQD Detroit district office. The records collected during the inspection correspond to the year 2015.

During the meeting we also discussed the Michigan Air Emissions Report (MAERS) for emission year 2015. The MAERS report was submitted electronically by ADAMO on February 1, 2016 and the review was completed by AQD staff on March 22, 2016.

Here is a summary of the records that were collected and/or discussed during the visit or provided via email during the following weeks after the inspection:

1) Relocation notices for year 2015 -The relocation notices submitted by Adamo and received by AQD were briefly discussed to confirm the equipment operation periods for year 2015.

2) Production records for year 2015 - Daily production records were collected for the months that the equipment was used in 2015. The summary for 2014 and 2015 usage by month was also provided by Adamo. For details about the review of these records refer to Section VII of this report.

3) Method 9 Visible Emissions (VE) Test Results - Adamo provided a copy of a report documenting the results of the initial VE test conducted on September 9, 2010

4) Pre-demolition asbestos containing material survey and asbestos abatements closeout documents -The documents collected during the inspection correspond to the demolition of a vacant building demolished in 2015 in West Bloomfield.

5) Water usage during dust suppressant applications for year 2015 - Water application records were collected during the inspection. For details about the records review, please refer to the Fugitive Dust Control Plan on Section VII of this report.

6) Manufacturer Manual with Technical Data for the Fintec 1107 Crusher Plant and Performance Data for the Caterpillar C9 Diesel Engine used at the Power Unit - The Fintec 1107 manual was provided by Adamo via email on April 11, 2016. The engine information had been provided on March 16, 2016, in response to AQD request during MAERS report audit.

At the closure of the meeting AQD staff indicated that the documentation provided would be further evaluated to determine final compliance with the General Permit PTI 101-10 and other state and federal regulations pertaining Air Quality. The information and the records collected during and after the inspection have been evaluated within the subsequent sections of this report.

### **III. EQUIPMENT DESCRIPTION**

According to the technical data included in the manufacturer manual for the Fintec 1107, the main elements of the Fintec 1107 are:

- A Feeder/Feeder Hoper
- A Jaw Crusher
- A Power Unit with a Diesel and Hydraulic Tanks
- A Control Box
- Main and Side Conveyors

The Fintec 1107 is a track-mounted primary crusher system ( i.e. Portable Plant) that has been designed to work in tandem with a Sandvic CJ211 1100 mm (44") x 700 mm (28") single-toggle, hydraulic wedge-adjust jaw crusher. The system is tough enough for quarry duty, yet it is fully transportable and designed to accept up to a 26-in wide feed, making it ideal for recycle and contract crushing.

According to the manufacturer, the performance of the Sandvic Jaws (i.e. estimated capacities in tons per hour -TPH -output) will depend on the "Closed Side Setting" (CSS). The minimum CSS at which the crusher can be operated depends on the feed size distribution, the material's crushability, the degree of contamination and moisture in the feed, and the type of jaw plates fitted.

For the CJ211, the capacities will vary from 110-160 TPH in the closed setting (2 to 3 inches) and from 300 to 490 TPH with the setting wide open at about 8 inches.

For additional details about the Fintec 1107, the Sandvic CJ211 and the C9 – 350 BHP Diesel Engine, refer to the technical data information included in the Appendix of this report, which will be filed in the facility folder.

#### **IV. COMPLAINT/COMPLIANCE HISTORY**

There is no history of complaints for the operation of this portable crusher.

#### **V. OUTSTANDING CONSENT ORDERS**

NA

#### **VI. OUTSTANDING VIOLATIONS**

During the inspection conducted on March 31, 2016 AQQ staff identified a violation of R336.1203(1)(a). As indicated earlier, Adamo had applied for, and was issued, PTI No. 101-10 for a nonmetallic mineral crusher with a maximum rated capacity of 75 tons per hour. Pursuant to the inspection, Adamo had provided the technical specifications for the Sandvik CJ211 Jaw installed on the portable Fintec 1107 Crusher. The information indicated that the rated capacity varies depending of the opening of the jaw and can exceed 300 tons per hour at its wide open setting. Therefore, the rated capacity information provided in 2010 was incorrect and does not correspond to the maximum rated capacity of the equipment under PTI No. 101-10. Consequently, AQD issued a Violation Notice (VN) to Adamo on April 14, 2016.

Adamo responded to the VN with a letter dated April 29, 2016 which was received by AQD Detroit Office on May 3, 2016. Adamo submitted a revised EQP5756 form correcting the rated capacity for the crusher. The violation remains unresolved until a new PTI is issued.

In addition, the VN requested justification for the selection of 40 tons per hour as a representative production rate for the crusher operation during the visible emission (VE) testing performed on September 9, 2010. AQD accepts the justification cited in Adamo's response letter. However, AQD will reexamine this issue by accessing the production rate at which the facility is generally operated to determine if another VE testing would be required.

#### **VII. APPLICABLE RULES/PERMIT CONDITIONS**

As indicated earlier, the operations of the Fintec 1107 are regulated under the state rules throughout the provisions and requirements specified in the General Permit PTI 101-10. Facilities that crush and process nonmetallic minerals can operate under a General Permit to Install if the following conditions are met:

- Crush no more than 2 million tons per year at any one site.
- Locate and operate their crusher a minimum of 500 feet from any residential or commercial establishment or place of public assembly.
- Established and implemented a fugitive dust control program.
- Do not have any unresolved air quality enforcement violations with the U.S. EPA or the DEQ.
- Have an operation not currently covered under another company's Permit to Install.

AQD re-evaluated the listed conditions as part of the compliance evaluation conducted during

this inspection. The conditions will be addressed in the next sections of this inspection report.

Furthermore, as the maximum rated capacity of the portable Fintec 1107 Crusher exceeds 150 tons per hour, the equipment is subject to the federal Standards of Performance for New Sources (NSPS) for Nonmetallic Mineral Processing Plants at Title 40 of the Code of Federal Regulations (CFR) Part 60, Subpart OOO (40 CFR 60.670(a)(1) and (c)(2)). The owner or operator of a nonmetallic mineral crusher subject to the NSPS OOO is required to conduct an initial VE test in conformance with 40 CFR 40 CFR 60.672(b) using the test methods and procedures specified at 60.675(a),(b)(2),(c) and (e). These requirements are incorporated into the PTI at Special Condition (SC) 1.8. As specified at 40 CFR 60.672(b), "affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup". For compliance with these requirements, please refer to "Testing" on Section VII of this report.

For simplicity, the conditions of PTI 101-10 have been *paraphrased*. The following conditions apply to: FGCRUSHING:

### **Emission Limits**

**1.1** *The particulate matter (PM) emissions from each baghouse dust collector portion of FGCRUSHING shall not exceed 0.04 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis.*

### **Not Applicable**

This condition does not apply to the Fintec 1107 Portable Jaw Crusher. The equipment does not possess a baghouse dust collector for dust control.

### **Visible Emission Limits**

**1.2** *Visible emissions from FGCRUSHING shall not exceed the limits listed under permit conditions 1.2a to 1.2j (the list included opacity limit in percentage for each process equipment at the crushing facility).*

### **Not Evaluated**

These conditions were not evaluated because the equipment was not in operation.

### **Material Usage Limits**

**1.3** *The permittee shall not process more than 2,000,000 tons of any non-metallic mineral through FGCRUSHING per year per site.*

### **In Compliance**

AQD reviewed the daily production records for year 2015 and added them up to get the monthly and annual records. AQD staff compared the results with the yearly summary provided by Adamo. They were in agreement with the daily and monthly records. The facility processed a total of 45,450 tons in 2015.

According to the records the crusher operated during 49 days from March to June and 10 days during the month of December, for a total of 59 days in 2015.

The daily records were added to obtain the production per month, as follows:

March = 11,100 tons (14 days)  
April = 11,900 tons (15 days)  
May = 15,000 tons (16 days)  
June = 2,700 tons (4 days)

December = 4,750 tons (10 days)

**1.4** *The annual production limit of 2,000,000 tons per year per site shall not apply if FGCRUSHING is operated at a location that is covered by a site specific air use permit. At such a location, the annual material processed shall be in conjunction with the production limit contained in the permit for that location. All other conditions and restrictions of this permit shall apply when operating at such location.*

**Not applicable**

**1.5** *The permittee shall not crush any asbestos tailings or asbestos containing waste materials, as defined by the National Emission Standard for Hazardous Air Pollutants regulations, in FGCRUSHING.*

**In Compliance**

Adamo indicated that their business practice includes a pre-demolition survey to determine the presence of Asbestos Containing Materials (ACM). The objective of the survey is to identify the location, quantities and conditions of ACM within the surveyed areas. The information obtained from the survey is used to assist in the proper removal and disposal of the ACM before demolition activities. AQD requested documentation to demonstrate compliance with this practice.

During the inspection Adamo provided copies of two reports: "Pre-demolition ACM and Lead/Cadmium Paint Surveys" dated August 28, 2014 and "Asbestos Abatements Closeout Documents" dated October 12, 2015. Both documents are attached to the inspection report on file.

The subject of demolition was a two-story vacant building containing an automotive showroom area, offices, warehouse /garage areas and a parts department. The building, located at 7100 Orchard Lake Rd., West Bloomfield, appeared to have been demolished during the fourth quarter of 2015 and the Fintec 1107 was used to crush the concrete slab of the vacant building.

Based on the results of the assessment and according to a summary table on the ACM survey report, there were some quantities of ACM in the 12 x 12 floor tiles which could have been adhered to the concrete subflooring. The recommendation was to abate all floor tiles prior to demolition since the concrete was going to be crushed. It appears that all ACM identified in the survey and recommended for abatement was removed prior demolition.

At the completion of this report AQD has been notified that new regulations requiring testing of concrete to determine the presence of ACMs (as part of the concrete mix formulation) are being evaluated by the EPA.

**Process/Operational Limits**

**1.6** *The permittee shall not operate FGCRUSHING unless the program for continuous fugitive emissions control for all facility roadways, the facility yard, all storage piles, and all material handling operations specified in Appendix A has been implemented and is maintained.*

**In Compliance**

Implementation of the dust control program was not witnessed during the visit because the crusher was not in operation. However, AQD reviewed water application records.

Adamo provided water application records for the crushing operations conducted at the Willow Run Airport Hangar 2 (801 Willow Run Airport, Ypsilanti, MI 48198) during 49 days from March 15 to June 25 of 2015.

Based on the review of the records, a total of 17,949 cubic feet of water was used during that period as dust suppressant to mitigate dust emissions. According to Ms. Danneels, additional measures were taken during this project to prevent tiny abrasive particles from being sucked into jet engine intakes. For details about the specific water volumes per month, refer to the records in the facility file.

### **Equipment**

*1.7 Each crusher and screen shall be equipped with a water spray. A baghouse dust collector may be installed in lieu of water spray for any particular piece of equipment. The control equipment shall be properly operated as necessary to comply with all emission limits.*

### **Not verified during this inspection**

According to the technical specifications the crusher is equipped with water sprays and not a baghouse. AQD couldn't witness the water spray operation during this inspection because the crusher was not operating.

### **Testing**

*1.8 Within 60 days after achieving maximum production rate, but not later than 180 days after initial startup of FGCRUSHING, verification of visible emission rates and particulate emission rates from all NSPS subject crushers, screens, all transfer points on conveyors, and all other miscellaneous equipment associated with FGCRUSHING and covered by the NSPS Subpart 000, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and 000, will be required.*

### **In Compliance**

The initial VE testing was conducted on September 9, 2010 by a certified tester. The report, dated October 2010, prepared by Fishbeck, Thompson, Carr & Huber, and submitted on behalf of Adamo, states 40 tons per hour represents the routine maximum production rate for the Fintec 1107 Jaw Crusher.

A copy of the complete report with opacity observations (which included the data sheets used during the Method 9 VE testing) was provided by Adamo during the inspection. The VE test results indicated that the sources of particulate matter were in compliance with the fugitive emission limits (i.e. percent opacities) established in Table 3 of NSPS 40 CFR, Part 60, Subpart 000 which had been incorporated into the General Permit to Install PTI 101-10.

*No less than 14 days prior to the anticipated test date, visible emission observation procedures must be approved by the District Supervisor. Also, no less than 7 days prior to the anticipated test date, the permittee shall notify the District Supervisor of the test date.*

### **Unknown**

There are no records on file indicating AQD approval of the VE observation procedures. When the General Permit Application was submitted, Adamo did not schedule and specific test date. A handwritten note (by AQD permit engineer) on the permit application form indicates that the test was going to be conducted upon start-up of the operations.

### **Monitoring**

*1.9 The permittee shall keep, in a satisfactory manner, daily and annual records of the amount of material processed for each site at which the facility operates. All records shall be kept on file for a period of at least five years and made available to the Department upon request.*

### **In Compliance**

Refer to Section 1.3 above.

### **Recordkeeping/Reporting/Notification**

**1.10** The permittee shall notify the AQD, within 15 days after initial startup of FGCRUSHING, or the actual date of initial startup.

## Unknown

### Permit Dates

**1.11** The permittee shall label all equipment associated FGCRUSHING within 45 days of initial startup according to the company IDs specified in the application (Form EQP5756). Labels shall be in a conspicuous location on the equipment.

**Not verified during this inspection.**

### Miscellaneous/Allowed Modification

**1.12** The permittee shall not replace or modify FGCRUSHING, or any portion of FGCRUSHING, including control equipment, unless all of the following conditions are met:

- a) The permittee shall update the general permit by submitting a new Process Information Form (EQP5756) to the Permit Section and District Supervisor, identifying all existing and new or additional equipment added to the process a minimum of 10 days before the equipment is replaced or modified.
- b) The permittee shall continue to meet all general permit to install applicability criteria after the replacement or modification is complete.
- c) The permittee shall keep records of the date and description of the replacement or modification.
- d) The permittee shall notify the Air Quality Division, within 15 days after startup of any new or additional equipment, of the actual date of initial startup.
- e) All new or additional equipment that is subject to the federal NSPS Subpart OOO, which has not been previously tested, shall comply with the testing requirements of the NSPS.

## In Compliance

According with the information provided by Ms. Danneels, the original Fintec 1107 (or any portion of its components) permitted under PTI 101-10 has not been modified.

**1.13** The permittee shall not relocate FGCRUSHING to any new geographical site in Michigan unless all the following criteria are met:

- a) The facility shall have no outstanding unresolved violations of any of the Michigan Department of Environmental Quality Air Pollution Control rules, orders, or permits; or Federal air quality regulations.
- b) A notice of intent to relocate (Relocation Notice Form EQP5757); a copy of the original general permit forms (EQP5727, EQP5729 and EQP5756); any Process Information forms for previous modifications; and a proposed site plan identifying the proposed new geographical site and the probable duration at the new site shall be provided to the appropriate district office and the Permit Section not less than 10 days prior to the scheduled relocation. All residential or commercial establishments and places of public assembly within 1,000 feet of the proposed facility site shall be clearly identified on the proposed site plan.
- c) The crusher(s) shall be located a minimum of 500 feet from any residential or commercial establishment or place of public assembly.
- d) A copy of this general permit and conditions shall be clearly posted in the operator's office or workstation.

## In Compliance

AQD verified the relocation notices for years 2014 and 2015. According to the records; Adamo

has submitted the required documents following the procedures specified by permit condition 1.13 b) and c) cited above. In some instances AQD received the forms one day after the equipment has been relocated or a few days before the relocation. Adamo was reminded to submit the required documentation 10 days prior to the scheduled relocation.

### VIII. MAERS REPORT REVIEW

MAERS report for emission year 2015 was timely submitted by Adamo on January 8, 2016. AQD staff reviewed the report and provided a few comments to the company. AQD completed and passed the audit on March 22, 2016. For audit details refer to the compliance activity report in MACES database under number CA P055833854 and on file.

### IX. FINAL COMPLIANCE DETERMINATION

Compliance with permit requirements and conditions has been evaluated and the results of the evaluation have been specifically addressed in Section VII of this report. The portable Fintec 1107 crusher was not operating during the inspection. Consequently, AQD couldn't conduct visible emission observations to determine compliance with the visible emission limits listed under permit conditions 1.2a to 1.2j (Opacity Limits in %) for FGCRUSHING. Likewise, the implementation of the fugitive dust mitigation measures was not witnessed at the time of the inspection.

AQQ staff identified a violation of R 336.1203(1)(a). PTI No. 101-10 was issued to operate a crusher at a maximum rated capacity of 75 tons per hour. Pursuant to the inspection, Adamo provided technical data which indicated a crushing capacity that can exceed 300 tons per hour at its wide open setting. As a result of this discrepancy AQD issued a Violation Notice to Adamo on April 14, 2016. At the completion of this report, the violation is considered unresolved.

NAME Chandora

DATE 5/16/16

SUPERVISOR JIC