B3533
MANUAL

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

B353331982

FACILITY: EDW C LEVY CO PLANT 1		**SRN / ID:** B3533
LOCATION: 8800 DIX AVE, DETROIT		**DISTRICT:** Detroit
CITY: DETROIT		**COUNTY:** WAYNE
CONTACT: Thomas E. Green , Manager, Environmental Services		**ACTIVITY DATE:** 10/21/2015
STAFF: Todd Zynda	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Scheduled Inspection
INSPECTED BY: Todd Zynda, AQD
PERSONNEL PRESENT: Tom Green, Director Environmental Services; Ben Kreoger, Environmental Engineer; George Hoenicke, Plant Manager
FACILITY PHONE NUMBER: 313-429-2228
FACILITY FAX NUMBER: 313-429-2605
FACILITY WEBSITE: http://edwclevy.com/

FACILITY BACKGROUND

Edward C. Levy Company (Levy) Plant 1 processes blast furnace slag received from U.S. Steel and AK Steel. The facility is located at 8800 Dix Avenue, Detroit, Michigan. The facility currently operates two shifts from 6 AM to midnight, Monday through Friday. The facility currently has 30 employees. Property boundaries are as follows. Metal processing/scrap yard facilities are located immediately adjacent to the east. A cemetery is located to the west. A rail way line is located immediately adjacent to the facility on the north side of the property. A community park is located across Dix Avenue to the south. The nearest residential properties are located approximately 870 feet to the north, approximately 1,000 feet to the west, and 1,100 feet to the south of the facility.

PROCESS OVERVIEW

Upon arrival to Levy Plant 1, raw slag trucks pass under a water spray station to cool the slag. The cooled slag is dumped into a raw feed pile. The plant extracts metals from the slag using a magnet for sale to a third party. From the raw feed pile, the slag is loaded into a grizzly feeder by bulldozer. The screen on the grizzly feeder separates large/oversized particles from the small grained particles in the slag. From the grizzly feeder, the slag is transferred via a conveyor system to a primary cone crusher located in Tower 1. From the primary crusher, the material is sent to screens in Tower 2 prior to being crushed in one of three secondary cone crushers located in Tower 1. Each secondary crusher processes different sized material. The secondary crusher used depends upon how the material is screened. The type of final material produced ranges from slag sand, roofing slag, 21AA, 6AA, 4G, etc. 6AA comprises 60% of the finished product and is used as an aggregate for concrete production.

Equipment at the facility includes the following: 7 stacker conveyors which stack finished product; a primary cone crusher; 3 secondary cone crushers; a grizzly feeder; 7 screens; 23 conveyors; 4 feeders; 3 magnets used to remove iron from the unprocessed slag; 2 parts washers; and a natural gas-fired boiler with a maximum heat input capacity of 370,000 British thermal units per hour (BTU/hr).

REGULATORY ANALYSIS

The facility operates equipment under Wayne County Installation Permits C-8611 through C-8614 dated September 13, 1996. The above listed permits appear to be a Title V Opt-Out Permit by limiting particulate matter (PM) emissions to less than 100 tons per year. The facility also operates under its own Wayne County fugitive dust State Implementation Plan (SIP) Consent Order 16-1993 (revised September 9, 1994).

<u>New Source Performance Standards (NSPS)</u>

The facility is not subject to 40 Code of Federal Regulations (CFR) Part 60, Subpart OOO as slag is not

considered a nonmetallic mineral. The United States Environmental Protection Agency (USEPA) applicability determination dated November 4, 1998 is attached to this report for reference.

No other NSPS appear to apply. The regulation for metallic mineral processors (Subpart LL) relates to mining and recovery of materials from ore, which is not the situation at Plant 1.

National Emission Standards for Hazardous Air Pollutants (NESHAP)/Maximum Achievable Control Technology (MACT)

The facility currently does not operate equipment subject to 40 CFR Part 61 or Part 63 regulations.

INSPECTION NARRATIVE

On October 21, 2015 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda, conducted an inspection of Levy Plant 1. During the inspection, Mr. Tom Green, Director of Environmental Services, Mr. Ben Kroeger, Environmental Engineer, and Mr. George Hoenicke, Plant Manager, provided information and a tour of facility operations relating to air quality permits and regulations. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55 and Wayne County Installation Permits C-8611 through C-8614 and SIP Consent Order 16-1993.

At 1:30 PM, AQD staff, Mr. Todd Zynda, arrived onsite and was greeted by Mr. Kroeger, Mr. Green, and Mr. Hoenicke. During the opening meeting the facility operations and permit requirements were discussed. The pound per hour (pph) limits included Special Condition (SC) 17 through 23 within C-8611 through C-8614 were discussed. According to Mr. Green, the pph limits are currently not evaluated as there is no way for the facility to measure pph emissions. The facility does not calculate a pph or tons per year number for individual pieces of equipment. Mr. Green stated that the facility is currently planning to submit a permit to install (PTI) application within the next two weeks. A new PTI will provide clarification on SCs that the company is struggling to demonstrate compliance with. Other SCs (SC 28 – plant hour restrictions, SC 33 – dust density transmitter), were discussed that the facility believes are outdated and need to be revised in a new PTI. According to Mr. Green, the facility no longer processes light weight slag or fly ash.

Additionally, during the opening meeting, the potential to emit (PTE) was discussed. Based on the facility wide pound per hour limit (SC 17), Levy Plant 1 appears to be an ROP Opt-out source. Mr. Green stated the consultant (Arcadis) is preparing the PTI application that will evaluate the PTE for the facility. Mr. Green also inquired about including a flexible group within a new permit to allow for the operation of a portable crushing and screening plant when necessary. According to Mr. Green, the facility sometimes needs to bring in a portable plant to provide additional processing, and the current AQD general permit for portable plants may not be applied to processing slag. Mr. Green was informed that this request should be included in the PTI application and will be evaluated by a permit engineer.

Following an introductory meeting, a tour of the facility was conducted. The tour began with observation truck entry area. The trucks drive under a heat sensor and then to water spray area where the slag is cooled in truck for 3 to 5 minutes. Next the slag raw feed pile was observed. During the inspection a bulldozer was moving material to the grizzly feeder, while an excavator equipped with a magnet was removing metal pieces.

Following observation of the raw feed pile, the crushing tower and screening towers 1 and 2, conveyor system, and storage piles were observed. The crushing tower and screening towers are enclosed and equipped with water bars, minimizing fugitive emissions. During the inspection, storage piles located near Dix Avenue were equipped with water spray (sprinklers) on the top of the pile. According to Mr. Hoenicke, the storage piles have to be wetted, not only to control fugitive dust, but also to meet the customer specifications.

During the inspection, the roadways in the plant and outside the plant on Dix Avenue were heavily wetted. A sweeper vacuum truck was observed at the plant entrance.

The tour concluded with observation of the maintenance building. The building houses a garage area for repairing trucks and heavy equipment. The maintenance building houses a light machining area where any emissions are released to the general in plant environment, along with two parts washers.

On October 22, 2015, the AQD provided Levy Plant 1 with an older Wayne County Permit and City of Detroit Permits that are assigned address 8800 Dix Avenue. The below permits will be voided as the permitted equipment has been permanently removed from 8800 Dix Avenue.

Wayne County Installation Permit C-8828 – Portable Crushing Plant
City of Detroit Permits 14954 through 14956 – Asphalt Plant

On October 29, 2015, Mr. Kroeger provided the emission records for Levy Plant 1 via email.

APPLICABLE RULES/PERMIT CONDITIONS
For brevity, permit conditions and the language of federal and state rules have been paraphrased.
Wayne County Installation Permit Nos. C-8611 through 8614
SC 17. COMPLIANCE. Facility wide emissions shall not exceed 24.68 pounds per hour nor 20.4 tons per year. According to the records provided, facility wide emissions are outlined in the below table. The facility is in compliance with the tons per year emission limit. The pound per hour emission is calculated using the facility emissions for the year divided by the facility hours of operation.

	2013	2014	2015
Hours of Operation	2,360	2,228	2,012
Facility Emissions (tpy)	12.71	11.3	8.3
Calculated Pounds per Hour	10.77	10.14	8.25

SC 18, 20, and 21. NOT IN COMPLIANCE. Pound per hour and ton per year limits as they relate to the screening tower 1 and 2 and crushing and iron processing are not maintained by the facility.

SC 19, 22, and 30. NOT APPLICABLE. The conditions relating to light weight slag are not applicable as the facility no longer processes light weight slag.

SC 23 and 24. NOT APPLICABLE. The conditions relating to fly ash are not applicable as the facility no longer processes fly ash.

SC 25. COMPLIANCE. Visible emissions from any roadway, parking lot, storage pile and material handling shall not exceed 5 percent opacity. The facility appeared to meet this requirement at the time of inspection.

SC 26, 27, 35 and 36. NOT APPLICABLE. Conditions relating to 40 CFR Part 60, Subpart OOO are not applicable. United States Environmental Protection Agency (USEPA) applicability determination dated November 4, 1998 indicates that the facility is not subject to Subpart OOO.

SC 28. NOT IN COMPLIANCE. Shall not operate air cooled slag processing plant for more than 2,000 hours per year. The hours of operation for the facility are outlined in the above table are greater than 2,000 hours for 2013, 2014, and 2015. The facility asserts that they are in compliance as the total hours of operations is less than 2,520 hours, the summation of the hour limits for both air cooled slag and light weight slag (2000 hours plus 520 hours [SC 30] = 2,520 hours). A permit modification is necessary to revise the hours of operation for the facility.

SC 29. COMPLIANCE. Air cooled slag processing plant throughput shall not exceed 650 tons per hour or 1,300,000 tons per year. According the records provided, annual facility throughput are outlined in the below table. The facility is in compliance with the tons per year throughput limit. The tons per hour limit is calculated using the annual facility throughput divided by the facility hours of operation.

	2013	2014	2015
Hours of Operation	2,360	2,228	2,012
Facility Throughput (tpy)	1,097,210	977,565	710,613
Calculated Tons per Hour	465	439	353

SC 31. COMPLIANCE. Combined total tonnage of air cooled and lightweight slag shall not exceed 1,430,000 tons per year. The facility is in compliance with this conditions as described above in SC 29.

SC 32. COMPLIANCE. A written log of hours of operation and tonnage processed shall be maintained on a daily basis. The facility provided written logs of hours of operation and tonnage processed on a daily basis for August, September, and October 2015.

SC 33. COMPLIANCE. Shall not operate the plant unless dust density transmitter, knuckle stacker mechanism, conveyor belt wipers and water spray systems are installed and maintained. The knuckle stackers, and conveyors were in operation and appeared to be maintained to minimize fugitive dust emission. The facility currently does not operate a dust density transmitter (opacity meter?). During the inspection, the facility stated that they do not know what a dust density transmitter is, and that this condition should be revised during an upcoming PTI application.

SC 34. NOT IN COMPLIANCE. Shall maintain minimum moisture content of 1.5 percent by weight in the raw materials and processed slag. Records provided indicate the total moisture content was 1.3 percent for product 1107-5G BF during the January 1, 2014 through December 31, 2014 reporting period.

SC 37. COMPLIANCE. Shall not process asbestos. The facility does not process asbestos or asbestos containing material.

Permit to Install Exempt Equipment

Natural Gas Boiler
The 370,000 Btu/hr natural gas boiler at the facility appears to be exempt from PTI requirements under the following rule:

R336.1282(b)(i): "The requirement to obtain a PTI does not apply to..fuel burning equipment which is used for space heating..which burns natural gas and has a rated heat input capacity of not more than 50,000,00 Btu per hour.

Metal Machining Equipment
Metal machining equipment located within the maintenance building appear to be exempt from PTI requirements under the following rule:

R336.1285(l)(vi)(B): "The requirement to obtain a PTI does not apply to.. equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, , sanding, planning, buffing, etc... metal....and has emissions that are released only into the general in-plant environment.

Cold Cleaners
The cold cleaners at the facility are exempt from PTI requirements under the following Rule.

R336.1281(h): "The Requirement of R 336.1201(1) to obtain a permit to install does not apply to.. Cold cleaners that have an air/vapor interface of not more than 10 square feet."

The facility provided the safety data sheet (SDS) for the cold cleaners in the October 29, 2015 submittal.

The cold cleaner is not heated during use and has a vapor pressure of 2.1 mmHg (0.04 pounds per square inch [psi]). During the inspection the cold cleaners appear to be in compliance with applicable requirements of Michigan Rule 707.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:
Wayne County fugitive dust State Implementation Plan (SIP) Consent Order 16-1993 revised September 9, 1994 along with installation permits C-8611 through C-8614 require that the facility maintain records of fugitive dust control.

Unpaved Road and Lots/Paved Roads and Lots. COMPLIANCE. The facility must maintain records of date of treatment, control measure, responsible person's initials, name of product applied, etc. for treatment of unpaved and paved roads. The fugitive dust records provided by the facility indicate that records are maintained of either water application or vacuum truck. Additionally, the facility provided purchase receipts for calcium chloride application.

Storage Piles/Material Handling. NOT IN COMPLIANCE. The facility must maintain records of date of treatment, control measure, responsible person's initials, name of product applied, etc. for storage piles and material handling. At this time, the facility has failed to provide records of treatment of storage piles and material handling.

MAERS REPORT REVIEW:

The facility is required to submit Michigan Air Emissions Reporting System (MAERS). The facility submitted MAERS for reporting year 2014 in a timely manner. No issues were identified with the 2014 MAERS reporting (see MACES report CA_B353328851 for the 2014 MAERS review report)

FINAL COMPLIANCE DETERMINATION:

The facility is in noncompliance with several conditions of C-8611 through C-8614 (pound per hour and ton per year records, hours of operations, moisture content) along with fugitive dust record keeping requirements of SIP Consent Order 16-1993.

During the inspection on October 21, 2015, the facility stated that a PTI application would be submitted within two weeks o revise conditions of C-8611 through C-8614 that that facility believes are no longer applicable or need to be modified to reflect current facility operations. On November 10, 2015, email correspondence from Mr. Ben Kroger, Environmental Engineer, states that the "target date for submitting a PTI application for Levy Plant 1, is November 20, 2015." At this time, AQD has not received a PTI application for Levy Plant 1.

A violation notice will be issued.

NAME  DATE 12/1/15 SUPERVISOR JK