

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

M352654719

FACILITY: STATE CRUSHING, INC.-EAST		SRN / ID: M3526
LOCATION: 25501 Sherwood, WARREN		DISTRICT: Warren
CITY: WARREN		COUNTY: MACOMB
CONTACT: R.J. Orozco , Owner		ACTIVITY DATE: 08/13/2020
STAFF: Kerry Kelly	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY 2020 targeted, announced inspection		
RESOLVED COMPLAINTS:		

On August 13, 2020, I (Kerry Kelly, EGLE-AQD) conducted a targeted inspection at State Crushing- East located at 25501 Sherwood Ave. in Warren, Michigan. The purpose of the inspections was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (EGLE-AQD) Rules; Permit-to-Install (PTI) #154-12A; and Consent Order #37-2016.

Upon arrival at the site, I met with Mr. R.J. Orozco, State Crushing, Co-owner, and Mr. Bart Frisbee, State Crushing, Industrial Sales, assisted me during the on-site inspection. Ms. Jody Robinson, State Crushing, provided records electronically as requested.

SOURCE INFORMATION

State Crushing-East produces building and road aggregate from concrete it receives from road construction projects. The facility is immediately surrounded by industrial, commercial, and residential properties. The nearest residence is located approximately 380 feet west of the primary crusher at State Crushing. There is a local park approximately 875 feet east of the crusher. Since the crusher is located less than 500 feet from a residence, the facility did not qualify for a General PTI and was required to obtain a site-specific PTI in order to legally operate per Rule 201. The equipment was first permitted in 2012 in PTI #154-12. In 2019, State Crushing applied for a PTI (#154-12A) to replace the crusher in PTI #154-12 with an identical crusher and to install an additional conveyor. PTI #154-12A was issued to State Crushing, Inc. on February 18, 2020.

The facility is located in southwestern Macomb County. Macomb County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the 8-hour ozone standard.

State Crushing - East is classified as a minor source of hazardous air pollutants (HAP) and criteria pollutants.

PROCESS DESCRIPTION

State Crushing-East receives broken concrete from road construction projects. The concrete is loaded into a jaw crusher using a front-end loader. The jaw crusher reduces the size of the concrete by compressing it. Mechanical pressure is applied to the broken concrete using the crusher's two jaws, one jaw is fixed and the other reciprocates. The jaw crusher is powered by electricity from the grid. From the jaw crusher, the rocks produced are conveyed to a double deck screen. Material smaller than 5/8" in diameter falls to the second deck of the screen and is conveyed to a storage pile as 21AA aggregate. Material between 1" and 3" in diameter is caught up in the first deck of the screen and conveyed to a storage pile as 1" x 3" aggregate. Material larger than 3" in diameter is conveyed to a secondary impact crusher. From the secondary impact crusher, material is, once again, conveyed to the double deck screen where the process repeats itself until nothing but 21AA aggregate and 1" x 3" aggregate is produced as a final product. Equipment at the plant includes the following: 1 jaw crusher; 1 impact crusher; 1 double deck screen; 10 conveyors; 2 stackers; and a front loader. Water is used to control emissions from the crushers, screen, and conveyors. Water and calcium chloride are used to control dust from the unpaved roads and rumbles strips and wet sweeping are used to prevent/control dust from paved roads. Crushing was taking place during the first half of the inspection.

COMPLIANCE EVALUATION

PTI #154-12A

The emission units addressed in PTI #154-12 are; EUPROCESS, EUTRUCKTRAFFIC, and EUSTORAGE.

EUPROCESS includes a combination of equipment (screens, crushers, feeder, conveyor, etc.) used to reduce

larger materials down to smaller sizes, classify and sort materials into various product types, material handling, and transporting of material to storage areas.

EUTRUCKTRAFFIC includes all truck traffic for delivery of material products to customers; truck traffic from unloading area to processing area and loader traffic associated with processing equipment, storage pile handling and loading delivery trucks. All commercial truck areas and unpaved road portions.

EUSTORAGE pertains to the open area stockpiles of various material sizes and product types.

I inspected the following equipment, labeled as required in PTI #154-12A, at State Crushing - East on August 13, 2020:

EQUIPMENT	LABEL NUMBER
Primary Crusher (Kolberg-Pioneer Model VR2854)	12
Secondary Crusher	14
Deck Screen	15
Conveyor 1	1
Conveyor 2	2
Conveyor 3	3
Conveyor 4	4
Conveyor 5	5
Conveyor 6	6
Conveyor 7	7
Conveyor 8	8
Conveyor 9	9
Conveyor 10	10

Visible emissions shall not exceed the opacity limits in Appendix A of PTI #154-12A from the drop point and transfer point portions of EUPROCESS nor 5% from all wheel loaders, truck traffic, and material storage piles per SC I.1 of each emission unit table. I did not observe visible emissions from the drop points, truck traffic, or storage piles during the inspection.

State Crushing is prohibited, in SC II.1, from processing any asbestos containing material. Mr. Orozco stated that State Crushing does not accept or process any asbestos containing material such as materials from bridges or wall boards from buildings. Material limits of not more than 2,040 tons of material a day and not more than 343,000 tons of material per year through EUPROCESS are established in SC II.2. Ms. Robinson provided daily, monthly, and 12-month rolling production records for January 2018 through July 2020 (Attachment 1). Production is calculated by multiplying the number of hours operated by the maximum hourly production rate (200 tons per hour) as determined by State Crushing. The highest reported daily and 12-month rolling production of material during the reported period was 2,000 tons and 315,890 tons respectively, both of which are below the limits in SC II.1. and II.2.

Operation of any portion of EUPROCESS, EUTRUCKTRAFFIC, and EUSTORAGE is prohibited unless the fugitive dust control plan in Appendix B is being implemented and is maintained and an approved Malfunction Abatement Plan (MAP) is implemented and maintained for EUPROCESS and EUTRUCKTRAFFIC.

Appendix B requires:

- Dust on the site roadways and the plant yard be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet all applicable emission limits.
- Asphalt millings be installed over all unpaved roadways used for truck traffic. A layer of 1 X 3 crushed concrete will be applied over the asphalt millings.
- All paved roadways and the plant yards shall be swept as needed to minimize fugitive dust.
- Installation of rumble strips at the rear of scale, front of scale, and plant exit to Sherwood Road.
- All rumble strips be cleaned as needed to ensure proper functionality.
- Any material spillage on roads be cleaned up immediately.
- Signs indicating a speed limit of 5 mph be placed along the roadway in a location easily visible to truck drivers.
- The drop distance at each transfer point be reduced to the minimum the equipment can achieve.
- The transfer point from the re-circulating belt to the feed belt be equipped with an enclosed chute.

- A water line to the jaw crusher be properly installed, maintained, and operated.
- Water spray heads shall be properly installed, maintained, on each conveyor.
- Stockpiling of all nonmetallic minerals shall be performed to minimize drop distance and control potential dust problems.
- Stockpiles shall be watered on an as needed basis in order to meet the opacity limit of 5 percent. Equipment to apply water or dust suppressant shall be available at the site or on call for use at the site within a given operating day.
- On-site vehicles be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any side board, side panel or tailgate. Otherwise, the truck shall be tarped.
- Records of all watering/dust suppressant applications, sweeping of the paved roadways, and cleaning of rumble strips be kept and made available to AQD upon request.

During the inspection I did not see dust being generated from the unpaved roads. The roads appeared to be moist. According to Mr. Orozco, calcium chloride was applied to the unpaved roads on August 12, 2020. The invoice for this calcium chloride application was provided by Ms. Robinson (Attachment 2). State Crushing had records of sprinkler inspections and water applications on site for 2019 and 2020. Ms. Robinson and Mr. Frisbee also provided copies of these records for dates I requested (Attachment 3). It appears that applications of dust suppressants are being done as often as necessary to meet the applicable emission limits.

Asphalt millings and a layer of 1 X 3 crushed concrete were installed over all unpaved roadways used for truck traffic at State Crushing - East in 2017, as required in the fugitive dust plan. The plan does not require, however, the maintenance of the asphalt millings and 1 X 3's on the unpaved roads. During this inspection, asphalt millings and 1X3 were not noticeable. On-site inspections conducted by AQD staff in the past several years, including my inspection on August 13, 2020, indicate that State Crushing appears to be maintaining the roads sufficiently to meet applicable emission limits without additional applications of asphalt millings and 1 X 3 crushed concrete. I observed two 4 MPH speed limits signs posted on site during the inspection as required in the fugitive dust plan.

During the site walk-through, I observed that rumble strips were installed at the rear of scale, front of scale, and plant exit to Sherwood Road. The rumble strips appeared to be clean for proper functionality at the time of my inspection. According to Mr. Frisbee, the rumble strips are cleaned by the sweeping company and by staff on site if needed in between sweeping. During the inspection, the paved roads on site appeared to be clean and I did not observe fugitive dust being generated from the paved roads. State Crushing is keeping records of the sweeping and cleaning of rumble strips on site. In addition, Ms. Robinson sent electronic copies of the sweeping/rumble strip cleaning records for July 2017 through August 2020 (Attachment 4). These records indicate the paved roads and rumble strips are being swept three times a week during the operating season.

I observed a water line to the jaw crusher during the inspection. The crusher operator used this water line to spray the material as it was loaded into the crusher. Water spray heads were also installed and operating on all but one conveyor during the inspection. This spray head was repaired and Mr. Frisbee sent me a photo of this sprayer operating on September 9, 2020. According to records on site, all water lines are inspected daily and maintenance performed as needed. The drop distance at each transfer point was reduced to the minimum the equipment can achieve and the transfer point from the re-circulating belt to the feed belt was equipped with an enclosed chute during the inspection.

Stockpiling was being performed in a manner to minimize drop distances during my inspection. I did not observe dust being generated from the stockpiling of materials.

The truck I observed being loaded during the inspection appeared to be filled so that no part of the load was in contact within 6 inches of the side board, side panel, or tailgate.

State Crushing is prohibited from operating EUPROCESS and EUTRUCKTRAFFIC, in SC III.2 and SC III.2 respectively, unless a malfunction abatement plan (MAP) for each process is implemented and maintained. Ms. Robinson sent a copy of the MAP (Attachment 5). The MAP indicates the water line to the jaw crusher, conveyor, and stockpiles will be inspected daily. If a problem that will result in emissions is discovered, the plant will be shut down and the equipment repaired per the MAP. In addition, Method 9 readings will be conducted monthly and site roadways and rumble strips will be inspected 3-4 times per week. Records of the inspections are kept on site. Ms. Robinson sent copies of the VE readings conducted during the 2020 operating season (Attachment 6).

CONSENT ORDER #37-2016

In 2015, EGLE-AQD received ten complaints regarding fugitive dust and fall-out attributed to State Crushing - East. During scheduled inspections and complaint investigations conducted by AQD at State Crushing - East in 2015, AQD inspectors identified violations of conditions in PTI #154-12 and 40 CFR 60 Subpart 000 and issued four notices of violation between September 10, 2015 and January 8, 2016. An additional violation noticed was issued April 15, 2016 for not controlling fugitive dust from the paved roads at the site. Consent Order #37-2016 constituted a civil settlement and satisfaction as to the resolution of these violations.

Between October 13, 2015 and September 4, 2020, EGLE-AQD received a total of two complaints attributed to State Crushing - East. These complaints, received May 18, 2017 and August 21, 2019, pertained to alleged fall-out on the complainants' properties. During on-site complaint investigations conducted in response to the May 18, 2017 and August 21, 2019 complaints, AQD inspectors were unable to verify whether State Crushing's operations caused fallout on the complainant's properties. Notices of violation were issued to State Crushing, based on information gathered during the complaint investigations, for exceeding the daily production limit, installing two conveyors and a screen without a PTI, and not keeping the complete log of watering records on site as required in CO #37-2016. Based on information gathered in response to the violations, I determined that the daily production limit was not exceeded and one of the conveyors and the screen appeared to be exempt from the requirement to have a PTI per Rule 285(2)(t). State Crushing received a PTI for the second conveyor on February 18, 2020. The unpermitted screen and conveyor were not at State Crushing - East during my inspection. According to Mr. Orozco, State Crushing does not plan to bring the screen and conveyor back to State Crushing-East. I observed that the 2019 and 2020 water logs were on site during this inspection. As a result, the violations for installing the screen and conveyor without a PTI and failure to maintain water records on site will be resolved.

The compliance program and implementation schedule in 9.A, 9.B, and 9.C of CO #37-2016 requires State Crushing to:

- Comply with PTI #154-12 and any subsequent revisions
- Comply with the AQD approved Fugitive Dust Control Plan and any subsequent revisions
- Comply with Rule 901 and ensure its operations do not create an unreasonable interference with the enjoyment of life and property
- Maintain records of water applications on site
- Properly label the equipment at the facility
- Conduct performance testing required in 40 CFR 60 Subpart 000

Information and observations gathered during this inspection and complaint investigations conducted in 2017 and 2019 indicated State Crushing is complying with PTI 154-12, the AQD approved fugitive dust control plan, Rule 901, recordkeeping requirements, and equipment labeling requirements. State Crushing performed an initial performance test required per 40 CFR 60 Subpart 000 on September 13, 2016 and submitted a test report within 60 days after the test as required CO #37-2016 9.C.3. The test report indicates compliance with the opacity limits in 40 CFR 60 Subpart 000. A performance test was not required for the replacement crusher, per 40 CFR 60.670(d)(1), because the replacement crusher is equal or smaller size and has the same function as the crusher it replaced, and there was no increase in the amount of emissions.

Michigan Air Emissions Reporting System (MAERS)

State Crushing reported calendar year particulate matter (PM) emissions calculations for all processes at the plant to the MAERS. The company is using MAERS emissions factors to calculate emissions with an 80% control efficiency. The throughput reported in MAERS for reporting years 2018 and 2019 coincide with the records provided by Ms. Robinson for this inspection.

CONCLUSION

Based on the information gathered during this inspection, State Crushing - East appears to be in compliance with Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division (EGLE-AQD) Rules; PTI #154-12A, Consent Order #37-2016, and 40 CFR 60 Subpart 000.

NAME

K. Kelly

DATE

9/25/2020

SUPERVISOR

Joyce