

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection

M352659747

<b>FACILITY:</b> STATE CRUSHING, INC.-EAST		<b>SRN / ID:</b> M3526
<b>LOCATION:</b> 25501 Sherwood, WARREN		<b>DISTRICT:</b> Warren
<b>CITY:</b> WARREN		<b>COUNTY:</b> MACOMB
<b>CONTACT:</b> Jody Robinson , Contoller		<b>ACTIVITY DATE:</b> 08/11/2021
<b>STAFF:</b> Shamim Ahammod	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> Conducted a scheduled inspection of State Crushing Inc (SRN: M3526).		
<b>RESOLVED COMPLAINTS:</b>		

On August 11, 2021, the Michigan Department of Environment, Great Lakes and Energy-Air Quality Division (EGLE-AQD) staff, I (Shamim Ahammod) conducted a scheduled inspection of State Crushing Inc (SRN: M3526) located at 25501 Sherwood Avenue, Warren, Michigan. The purpose of the inspection was to determine the company'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 Air Pollution Control Rules; and the conditions of Permit to Install (PTI) No. 154-12A for a non-metallic mineral crusher and its associated equipment.

#### Violation Notice and Consent Order

The facility has an active consent order No. 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 OOO 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 on 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. AQD inspector 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 at inspection on 8/13/2020. Based on Last inspection on 8/13/2020, the 2019 and 2020 water logs were on site during the 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**

**Per onsite inspection on August 11, 2021, it appears the permittee complies with PTI No. 154-12A.**

- **Comply with the AQD approved Fugitive Dust Control Plan and any subsequent revisions.**

**Per Consent order No. 37-2016, 9.A.2, on 6/24/2016, AQD received email from Ms. Jody Robinson with updated Fugitive Dust Control Plan. At the time of inspection, it is determined that the permittee maintains the fugitive dust control plan. More details explained in Appendix B.**

- **Comply with Rule 901 and ensure its operations do not create an unreasonable interference with the enjoyment of life and property.**

**Per Consent order No. 37-2016, 9.B, at time of inspection on August 11, 2021, it appears the permittee did not violate the Rule 901.**

- **Maintain records of water applications on site**

**Per consent order No. 37-2016, 9.C.1, during the inspection on August 11, 2021, it appears the permittee maintains the records of water application. More details explained in Appendix B.**

- **Properly label the equipment at the facility.**

**Per Consent order No. 37-2016, 9.C.2, at the time of inspection, it appears the permittee properly labeled the equipment at the facility.**

- **Conduct performance testing required in 40 CFR 60 Subpart OOO Information.**

**Per Consent order No. 37-2016, 9.C.3, State Crushing performed an initial performance test required per 40 CFR 60 Subpart OOO 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 OOO. 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.**

**On 10/17/2019, the State Crushing has paid the stipulated penalty. However, the ACO has not been terminated yet and it is still in effect.**

## **Source Description**

**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 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.

### Control device

PM, PM10, and PM2.5 emissions are controlled by a water spray on the crushers and screens.

### Rules and Regulations

#### Applicable State Rule: Rule 301 – Standards for Density of Emissions

The crusher is subject to Rule 301 as it does not meet subrules (2), (3), or (4) of Rule 301 and no request was made for the department to establish an alternate opacity limit. As a result, EUPROCESS shall not exceed the appropriate opacity limits. The opacity limits are set by the NSPS.

#### Applicable Federal Regulations

#### 40 CFR 60 Subpart OOO - NSPS for Nonmetallic Mineral Processing Plants

While the new equipment is subject to NSPS Subpart OOO, the replacement crusher is not subject to the testing requirements as it is an identical replacement to the existing crusher, the installation of which will not lead to an increase in emissions.

### Onsite Inspection

On August 11, 2021, at 1.30 PM, I arrived at the facility and met with Mr. Joaquin Barboza, Plant Foreman of State Crushing Inc. I introduced myself, provided credentials, and stated the purpose of the inspection. Mr. Barboza and I toured the facility. Mr. Barboza explained the process of the operation. I verified the labeling of the equipment at the time of inspection.

### Process Description

The emission units addressed in PTI #154-12A are EUPROCESS, EUTRUCKTRAFFIC, and EUSTORAGE. EUPROCESS includes a combination of equipment (screens, crushers, feeders, conveyors, 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.

At the time of my inspection, crushers, feeders, screens, conveyors were in operation. Mr. Barboza explained to me how they reduce the larger materials down to smaller sizes. 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, the 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, screens, 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 road.

## Compliance Evaluation

### EUPROCESS

#### Emission Limits

Per SC I.1, Visible emissions from the drop point and transfer point portions of EUPROCESS shall not exceed the opacity limits in Appendix A.

Per SC III.1, The permittee shall not operate any portion of EUPROCESS unless each portion of EUPROCESS meets the specific opacity limit listed in Appendix A of this permit.

At the time of inspection, I observed the opacity from the listed equipment of EUPROCESS and it appears the opacity from EUPROCESS was below the opacity limit.

#### Appendix A:

Equipment Description	ID Number	Opacity Limit (Percent)	Control Device
Primary Crusher, serial #2854-402055-H314	12	12	Water sprays (Or other control device as allowed by Subpart 000)
Secondary Crusher – serial #11627	14	15	Water sprays (Or other control device as allowed by Subpart 000)
Deck Screen – serial #99H04G32	15	10	Residual moisture

<b>Equipment Description</b>	<b>ID Number</b>	<b>Opacity Limit (Percent)</b>	<b>Control Device</b>
Conveyor	1	10	Residual moisture
Conveyor	2	10	Residual moisture
Conveyor – serial #KR1200	3	10	Residual moisture
Conveyor – serial #153053874	4	10	Residual moisture
Conveyor – serial #7030P3809	5	10	Residual moisture
Conveyor	6	10	Residual moisture
Conveyor – serial #KR3808	7	10	Residual moisture
Conveyor	8	10	Residual moisture
Conveyor – serial #55302P1532	9	10	Residual moisture
Conveyor	10	7	Residual moisture

### **Material Limit**

**Per SC II.1 of EUPROCESS, the permittee shall not process any asbestos tailing or asbestos-containing waste materials in EUPROCESS under the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. Mr. Barboza stated that State Crushing does not accept or process any asbestos-containing material such as materials from bridges or wallboards from buildings.**

**Per SC II.2 of EUPROCESS, the permittee shall not process more than 2040 tons of material per day nor 343000 tons of material through EUPROCESS per 12-month rolling period as determined at the end of each calendar month. Ms. Jody Robinson, State Crushing provided the requested records. I reviewed the daily, monthly, and 12-month rolling production records for April 2018 through June 2021.**

**The highest reported daily and 12-month rolling production of material during the reported period was 2,000 tons (June 20, 2020) and 315,890 tons (end of March 2020) respectively, both of which are below the limits in SC II.1 and II.2.**

### **Process/Operational restrictions for EUPROCESS, EUTRUCKTRAFFIC, and EUSTORAGE**

**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:**

#### **Nuisance Minimization Plan for Fugitive Dust**

##### **1. Site Roadways/Plant Yard**

- A. Dust on the site roadways and the plant yard shall 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.
  - At the time of inspection, I did not see dust being generated from the unpaved roads. Ms. Robinson provided the record of all watering/dust suppressant applications, sweeping of the paved roadways, and cleaning of rumble strips. Ms. Robinson provided an invoice indicating how much calcium chloride was delivered to State Crushing -east from 8/12/2020 to 8/8/2021. State Crushing had records of sprinkler inspections and water applications on-site for 2020 and 2021. I reviewed those records from Jan 2020 to July 2021. It appears that the application of dust suppressants is being done as often as necessary to meet the applicable emission limits.
- A. Asphalt millings are installed over all unpaved roadways used for truck traffic. A layer of 1 X 3 crushed concrete will be applied over the asphalt millings.
- B. According to Ms. Robinson, asphalt millings are only applied over all unpaved roadways if the yard is having an issue with potholes. All paved roadways and the plant yards shall be swept as needed to minimize fugitive dust. A record of all sweeping of the paved roadways shall be kept on file.
  - At the time of inspection, all paved roadways and plant yards seemed clean. As I asked Mr. Barboza, he confirmed to me that they routinely clean the road.
  - Ms. Robinson provided daily sweeping logs for 2019, 2020, and 2021.
- A. Installation of rumble strips at the rear of scale, front of the scale, and plant exit to Sherwood Road.
  - During the inspection, I observed the permittee has installed the rumble strips at the rear of scale, front of the scale, and plant exit to Sherwood Road.
- A. All rumble strips are cleaned as needed to ensure proper functionality.
  - Rumble strips appeared to be clean for proper functionality. According to Ms. Robinson, the rumble strips are cleaned by the sweeping company and by staff on-site if needed in between sweeping. Ms. Robinson provided copies of the sweeping/rumble strip cleaning records for

2019, 2020, and 2021. These records indicate the paved roads and rumble strips are being swept around three times a week during the operating time.

- A. Any material spillage on roads be cleaned up immediately.
  - I didn't observe any spillage material on roads.
- A. Signs indicating a speed limit of 5 mph be placed along the roadway in a location easily visible to truck drivers.
  - At the time of inspection, I observed there was a sign indicating a speed limit of 4 mph.

## II. Plant

- A. 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.
  - 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.
- A. A water line to the jaw crusher be properly installed, maintained, and operated.
  - I observed a water line to the jaw crusher during the inspection.
- A. Water spray heads shall be properly installed, maintained, on each conveyor.
  - At the time of inspection, I observed water spray heads were installed on the conveyor. According to Ms. Robinson, all water lines are inspected daily, and maintenance is performed as needed. Ms. Robinson provided daily water lines inspection records.

## III. Storage Piles

- A. Stockpiling of all nonmetallic minerals shall be performed to minimize drop distance and control potential dust problems.
  - At the time of inspection, I didn't see any dust being generated from the stockpiling of materials.
- A. Stockpiles shall be watered on an as-needed basis 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.
  - More details are explained in the above sections.

## IV. Truck Traffic

**On-site vehicles shall 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 sideboard, side panel, or tailgate. Otherwise, the truck shall be tarped.**

- According to Ms. Jody, on-site vehicles never be overloaded and always truck be tarped before entering the scale. I re-visited this facility on September 1, 2021, I observed the truck was tarped while entering the scale and wasn't overloaded.

## CONCLUSION

**Based on the on-site inspection and review of the records, State Crushing - East appears to comply with PTI No. 154-12A, and 40 CFR 60 Subpart OOO.**

NAME 

DATE 09/20/2021

SUPERVISOR 