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

P102073705

FACILITY: Messina Trucking, Inc.		**SRN / ID:** P1020
LOCATION: 6386 Auburn Road, SHELBY TWP		**DISTRICT:** Warren
CITY: SHELBY TWP		**COUNTY:** MACOMB
CONTACT: Stephen Messina , Manager/VP		**ACTIVITY DATE:** 09/04/2024
STAFF: Shamim Ahammod	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Conducted an scheduled inspection of Messina Trucking.		
RESOLVED COMPLAINTS:		

On September 4, 2024, 2024, the Michigan Department of Environment, Great Lakes and Energy-Air Quality Division (EGLE-AQD) staff, Joe Jaskowski and I (Shamim Ahammod) conducted an scheduled inspection of Messina Trucking located at 2218 Juengel Road, Shelby Township, 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. 83-19.

Source Description
The source is a portable existing nonmetallic mineral crushing plant (SRN: P1020) located at 2218 Juengel Road in Shelby Township. The source consists of crushers, screens, conveyors, and stackers. The nearest residence is located less than 500 feet from the primary crusher at Messina Trucking. 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.

On July 22, 2019, PTI No. 83-19 was issued to Messina Trucking Inc. located at 2218 Juengel Road, Shelby Township, Michigan.
Messina Trucking is classified as a minor source of particulate emissions from the plant. Due to the capacity of the crusher, the equipment is subject to Standards of Performance for New Stationary Sources (NSPS), Subpart OOO, thus the applicant must verify the visible emission rates and particulate emission rates covered by Subpart OOO within 60 days of achieving the maximum production rate. Messina Trucking Inc. is a minor source of particulate emissions and emissions from the plant are controlled by water sprays.

Control Device
Emissions are controlled with water sprays.

Rules and Regulations
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. The opacity limits are set in accordance with the NSPS.

Applicable Federal Regulations
40 CFR 60 Subpart OOO- NSPS for Nonmetallic Mineral Processing Plants
This source is subject to NSPS Subpart OOO. This requires a one-time opacity test to be performed for each piece of equipment. This also sets opacity limits for the process equipment.

- On May 5, 2021, Messina Trucking conducted a USEPA Method 9 Visible Emission (VE) Opacity test. More details are explained in SC V.1(Testing/Sampling).

Onsite Inspection
On September 4, 2024, Joe Jaskowski and I conducted an announced inspection of Messina Trucking. At 10:40 AM, Joe Jaskowski and I arrived at the facility. At the entrance of the facility, we met with Steve Messina, facility owner, and Steve Jackson, Foreman, and Mechanic. I explained the purpose of the visit. Steve Jackson, Steve Messina, Joe Jaskowski, and I walked through the facility. During the inspection, the facility was in operation.

Process Description
The emission units addressed in PTI #83-19 are EUPROCESS, EUTRUCKTRAFFIC, and EUSTORAGE. EUPROCESS includes a combination of equipment such as screens, crushers, feeders, conveyors, and so on, used to reduce larger materials down to smaller sizes, classify and sort materials into various product types, material handling, and transport material to storage areas.

Messina Trucking receives broken concrete from road construction projects. The concrete is loaded into a jaw crusher using a front-end loader. The jaw crusher (primary 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. The 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. Water and/or calcium chloride are used to control emissions from the crushers, screens, and conveyors. Water and/or calcium chloride are used to control dust from unpaved roads and wet sweeping are used to prevent dust from paved roads.

REGULATORY ANALYSIS
Emission Limit
At the time of inspection, I observed that the opacity from FGCRUSHING as follows:

	Equipment	Opacity observed	Opacity Limit (%)
1.2a	Any equipment enclosed within a building	0	No visible emissions
1.2b	All crushers	5%	12
1.2c	Screens	0%	7
1.2d	Rock drills		5
1.2e	Conveyors/Transfer points	0%	7
1.2f	Wash screens and all subsequent equipment downstream up to the next crusher or storage bin	0%	No visible emissions
1.2g	All equipment controlled by a baghouse dust collector	No baghouse	7
1.2h	Wheel loaders and truck traffic	Less than 5%	5
1.2i	Material storage piles	0%	5
1.2j	Any other process equipment which is part of the nonmetallic mineral crushing facility or related processes	The sand conveyor was not in operation	7

Material Limit
Per SC II.1, The permittee shall not process more than 100,000 tons of material through FGCRUSHING per 12-month rolling time period as determined at the end of each calendar month. Per SC VI.2, The permittee shall keep monthly records of the amount of material processed through FGCRUSHING. Furthermore, the permittee shall calculate monthly, the yearly throughput rate based

upon the most recent 12-month rolling period in a format acceptable to the AQD District Supervisor. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request.
Per SC VI.3, The permittee shall keep daily records of the amount of material processed through FGCRUSHING in a format acceptable to the AQD District Supervisor. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request.

- I received the daily and monthly records of the amount of material processed through FGCRUSHING and saved it at S:\Air Quality Division\STAFF\Shamim Ahammod\2024 Inspection List\Messina Trucking\Record-2024. I reviewed the daily and monthly records of the amount of material processed through FGCRUSHING from August 2021 through July 2024.

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Month/year	Amount of material processed through FGCRUSHING in a ton.	
	Monthly	12-month rolling
Aug-21	2200	
Sep-21	1627	
Oct-21	1820	
Nov-21	1560	
Dec-21	1067	
Jan-22	985	
Feb-22	598	
Mar-22	1435	
Apr-22	1560	
May-22	1781	
Jun-22	1235	15868
Jul-22	742	16610
Aug-22	1721	16131
Sep-22	1513	16017
Oct-22	1596	15793
Nov-22	1276	15509
Dec-22	834	15276
Jan-23	442	14733
Feb-23	746	14881
Mar-23	447	13893
Apr-23	468	12801
May-23	605	11625
Jun-23	587	10977
Jul-23	650	10885
Aug-23	550	9714

Sep-23	596	8797
Oct-23	668	7869
Nov-23	464	7057
Dec-23	396	6619
Jan-24	540	6717
Feb-24	933	6904
Mar-24	702	7159
Apr-24	906	7597
May-24	0	6992
Jun-24	0	6405
Jul-24	0	5755

Per the records of the 12-month rolling time period as determined at the end of each month, the total maximum production of material during the reported period was 16,610 tons (end of July 2022) which is below the limits of 100,000 tons in SC II.1.

- More details are explained in SC IV.2 (Design and Equipment section).

Per SC II.2, the permittee hasn't crushed any asbestos-containing waste materials in the facility according to Steve Messina.

Process/Operational Restrictions

Per SC III.1, 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 B has been implemented and is maintained.

Per VI.4, The permittee shall not operate FGCRUSHING unless the nuisance minimization plan for fugitive dust for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix A has been implemented and is maintained. See details in SC VI.5.

APPENDIX A: Equipment List

Equipment Description		ID Number		Control Device
Pioneer Primary Crusher		2854		Water Spray
Grasan Impact Crusher		KR1313E		Water Spray
Grasan Feed Conveyor	Not used	3630		Residual Moisture
Grasan Feed Conveyor	Not used	6536S		Residual Moisture
Grasan Return Conveyor		2530S		Residual Moisture
Grasan 2nd Return Conveyor	Not used	3630S		Residual Moisture
Grasan Transfer Conveyor	1X3 transfer	2436B		Residual Moisture
Kolberg Stacker	21A	31-36125		Residual Moisture
Portec Pioneer Conveyor	1X3 stacker	31-36105		Residual Moisture
Grasan Conveyor	21A transfer	T36255		Residual Moisture
Grasan Conveyor	2nd feeder	4948S		Residual Moisture
Grasan Conveyor	1st feed	3348S		Residual Moisture
Grasan Conveyor	Not used, stored in the gate.	10030P		Residual Moisture
Finlay Conveyor	Fintec 570- Sand conveyor	3000		Residual Moisture
Finlay Conveyor	Not used	3080		Residual Moisture

Equipment Description		ID Number		Control Device
Grasan Conveyor	2nd return conveyor	5530S		Residual Moisture
Conveyor	1X3 side discharge	3206		

Per SC VI.5, the permittee shall keep records of all watering/dust suppressant applications for the site roadways, plant yards, and stockpiles as required by Appendix A. The permittee shall keep all records, in a format acceptable to the AQD District Supervisor, on file and make them available to the Department upon request.

- The permittee applies water and calcium chloride throughout the facility to minimize the fugitive dust for all plant roadways, the plant yard, and all material storage piles.
- **I reviewed the records of the dust suppression applied throughout the facility from April 2023 through June 2024 and saved them at S:\Air Quality Division\STAFF\Shamim Ahammod\2024 Inspection List\Messina Trucking\Record-2024. These records indicate that Messina Trucking applied calcium chloride throughout the facility during the operational period around two/three times a week. Moreover, they kept records when there was rain, and they didn't need to spray calcium chloride during the rain.**

Design/Equipment Parameters

Per SC IV.1, The permittee shall not operate any portion of FGCRUSHING unless the water sprays for each crusher and each screen are installed, maintained, and operated in a satisfactory manner. At the time of inspection, I observed that the permittee was continuously spraying water on each crusher and each screen.

Per SC IV.2, The permittee shall install and maintain a belt scale(s) on the transfer conveyor(s) portion of FGCRUSHING which continuously shows the daily throughput rate for the conveyor(s). The permittee operates two transfer conveyors. The material with a diameter between 1 inch and 3 inches is captured by the first deck of the screen and subsequently conveyed to a storage pile as 1" x 3" aggregate. On September 13, 2023, a violation notice (VN) was issued due to the absence of a belt scale on the transfer conveyor that handles the 1" x 3" aggregate materials. During this inspection, I observed that the permittee had installed a belt scale on this transfer conveyor. As a result, this violation notice will be resolved. The installation of the belt scale occurred on December 5th, 2023, allowing for accurate measurement of the 1" x 3" aggregate materials. At the time of inspection, I noted the following on the belt scale display that measures 1" x 3" aggregate materials:

- The total material processed was 1230 tons.
- The daily amount recorded was 27.5 tons,
- The rate displayed was 11 tons per hour.
- According to Steve Jackson, the daily amount on the belt scale is reset each day.

21AA Aggregate Processing: Material smaller than 5/8 inch in diameter falls through to the second deck of the screen and is conveyed to a storage pile as 21AA aggregate. On August 3, 2020, the permittee installed a belt scale on the portion of the transfer conveyor that carries the 21AA aggregate materials. At the time of inspection, I noted the following on the belt scale display that measures 21AA aggregate materials:

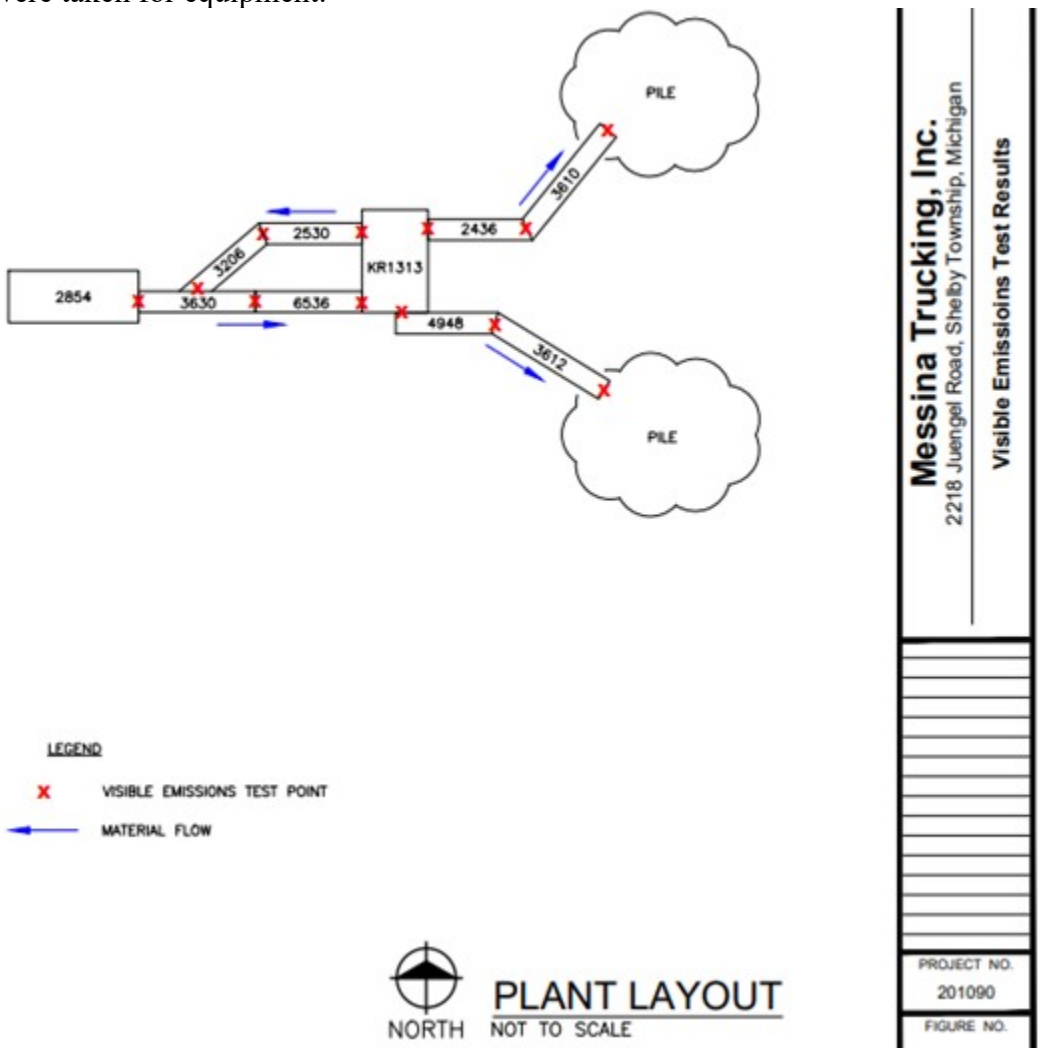
- The total material processed was 3190.2 tons.
- The daily amount recorded was 279.4 tons,
- The rate displayed was 189 tons per hour.
- According to Steve Jackson, the daily amount on the belt scale is reset each day.

Record-keeping Initiatives: Starting January 2024, the permittee began maintaining separate records for processed materials through each conveyor using two distinct belt scales.

Testing/Sampling

Per SC V.1, on May 5, 2021, the permittee verified the visible emission rate from the following crushers, screens, transfer points on conveyors, and other miscellaneous equipment associated with FGCRUSHING. Fishbeck was hired by Messina Trucking to conduct a USEPA Method 9 visible emission determination for the applicable equipment. Method 9 Visible Emission test results are given below: APPENDIX A: Equipment List

The following figure represents the equipment configuration of the Messina crushing, screening, and conveying process equipment during the VE testing and identifies the points at which VE readings were taken for equipment.



There are 10 locations/equipment in the FGCRUSHING facility. The permittee has tested all of this equipment. However, there are 6 locations/equipment included in the permit that have not been tested. The reason for this is that they are either unused or consist of a sand conveyor. According to 40 CFR 60.670(c), sand conveyors do not require testing.

Equipment Description		ID Number	Average Opacity of 6-minute Average
Pioneer Primary Crusher		2854	2.0%
Grasan Impact Crusher		KR1313E	1.1%
Grasan Feed Conveyor	Not used	3630	0%

Equipment Description		ID Number	Average Opacity of 6-minute Average
Grasan Feed Conveyor	Not used	65365	0%
Grasan Return Conveyor		25305	0%
Grasan 2nd Return Conveyor	Not used	36305	Residual Moisture
Grasan Transfer Conveyor	1x3 transfer	2436B	0%
Kolberg Stacker	21A	31-36125	0%
Portec Pioneer Conveyor	1x3 stacker	31-36105	0%
Grasan Conveyor	21A Transfer	T36255	Residual Moisture
Grasan Conveyor	2nd Feeder	4948S	0%
Grasan Conveyor	1st Feed	33485	Residual Moisture
Grasan Conveyor	Not used, stored at the gate.	10030P	Residual Moisture
Finlay Conveyor	Fintec 570-Sand Conveyor	3000	Residual Moisture
Finlay Conveyor	Not used	3080	Residual Moisture
Grasan Conveyor	2nd return conveyor	55305	Residual Moisture
Conveyor	1x3 side discharge	3206	0%

Reporting

Per VII.1, the permittee is required to notify AQD once the equipment is installed in the facility. On May 8, 2019, Robert Joseph, AQD District Inspector sent a violation letter to the facility for installing a nonmetallic crusher without obtaining a permit to install. To resolve the VN, the facility applied for the Permit and AQD issued permit no. 83-19 on July 22, 2019.

OTHER REQUIREMENT(S)

Per SC IX.2, within 7 days of permit issuance, the permittee shall label all equipment listed in Appendix A with their associated ID Number using a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment and shall be maintained. At the time of inspection, I observed the permittee had labeled the equipment.

APPENDIX B: Nuisance Minimization Plan Fugitive Dust

I. Site Roadways / Plant Yard

A. The 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. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.

B. All paved roadways and the plant yards shall be swept as needed between applications.

C. Any material spillage on roads shall be cleaned up immediately.

- At the time of inspection, I did not see dust being generated from the paved roads. Steve Messina provided the record of all watering/dust suppressant applications. I reviewed the records for April 2023 to June 2024 that indicated whether they sprayed calcium chloride or whether there was rain or snow. It appears that the application of dust suppressants was applied around two/three times per week.

II. Plant

The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve. The transfer point from the re-circulating belt to the feed belt shall be equipped with an enclosed chute.

- During inspection, I did not observe any dust from the transfer point.

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.

B. 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. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.

- 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 Steve Messina, on-site vehicles are never overloaded, and trucks are always tarped. At the time of inspection, I did not see any trucks being loaded.

Resolved Violation Notice

- On October 3, 2022, and September 13, 2023, AQD issued two separate violation notices (VNs) to the facility for failing to install a belt scale to measure the weight of the 1" x 3" aggregate materials produced during the operations. During this inspection, I observed that the facility has now installed a belt scale to accurately measure the weight of the 1" x 3" aggregate materials. For further details, refer to SC IV.2 (Design/Equipment Parameters).

Based on an onsite inspection, review of records, and discussion with the facility's staff, the facility is in compliance with PTI No. 83-19.

NAME Shamim Ahammod DATE 09/23/2024 SUPERVISOR K. Kelly