ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

Inspection Report

Report Date:	8/8/2018	Inspection Date:	7/26/2018 & 6/28/2018
Supervisor:	Ron Robeen	Inspector:	Gopi Ramanathan GR

SOURCE INFORMATION	
Facility ID #:	031600QKI
Company Name:	MAT Asphalt, LLC.
Street Address:	2055 West Pershing Avenue
City, County:	Chicago, Cook
State, Zip Code:	Illinois, 60609
Contact/Title:	Joe Haughey, Plant Manager
Contact Phone/Fax/Cell:	773-577-7000; 773-831-5084; 773-617-0789
Contact Email:	jhaughey@MATasphalt.com

Purpose of Inspection:	PCE-On site inspection was conducted to observe the facility operations when they are producing HMA-Hot Mix Asphalt. Facility started production on June 13th, 2018.

Permit No.	Type	Issued	Expires	Unit(s)
17070024	Const.Permit	10/26/2017	*	Hot Mix Asphalt Plant

*PSC#1c. Construction permit allows the operation of the equipment at the facility for a period of 1 year from the date of initial startup.

Pre-inspection Review

- The source was issued a Const. Permit for a Hot Mix Asphalt plant and aggregate crushing operation. This Construction permit was reviewed for the applicable throughput and emission limits and regulations. Operational and record keeping requirements were noted.
- The source is required to maintain records as listed in 35 IAC Section 201.175 subsection (e).
- The source to maintain the records for the Fugitive Dust Operating Program, such as the requirements outlined in Title 35 Subpart K.
- The Hot Mix Asphalt Plant and the Aggregate Crusher construction permit application was reviewed. The information on the air pollution control for the drum mixer was reviewed. The required controls for the Aggregate Crusher as indicated in the permit includes the fugitive dust operating program, the application of water by spray bars at the crushers, minimizing material freefall, watering of traffic-ways.

Inspection Conditions							
Inspection Dates:	7/26/2018	Arrival Time:	8:15 AM	Departure time:	11:45 AM		
	6/28/2018	Arrival Time:	9:30 AM	Departure Time:	12:15 PM		
Weather Conditions	7/26/2018	Sky:	Clear	Winds:	WNW 15mph	Temp.:	74° F
	6/28/2018	Sky:	Cloudy	Winds:	ENE 7mph	Temp.:	78°F
Persons Interviewed	Joe Haughey - Plant Manager						
Off-site Surveillance	7/26/2018: Prior to the inspection the author drove around the neighborhood on Pershing road, few blocks east and west and on Damen also few blocks. No odors were experienced at those locations. This is a Hot Mix Asphalt plant. The silos and the drum drier are located approximately 400 feet inside and away from Pershing road. There are few old buildings blocking the view from the main street. It was not possible to park outside the facility and observe their operations. Prior to the inspection, the author parked in their parking lot and positioned approximately 200 feet from the Hot Mix Asphalt plant process equipment and the author observed the baghouse exhaust, silo filling and truck loadout operations from that location for about 10 minutes. There were no visible Particulate matter emissions observed from the baghouse exhaust and from the other processes. No odors were experienced by the author from the plant operations at that location. 6/28/2018: This was an unannounced inspection. The author reached the facility neighborhood at around 9:30 AM. It was difficult to observe the facility operations from a distance, since there are few old, building blocking the view. No visible emissions were noticed and no organic odors were felt outside the plant while the author drove around the neighborhood.						

Inspection Findings

Equipment and operations:

This source operates natural gas fired Rotary Drum Mixer/Dryer asphalt plant and an aggregate Crushing plant. This facility is located in an area which is attainment for particulates and Moderate non-attainment for ozone. The Asphalt plant is subject to NSPS standards Subparts A and I. The asphalt plant is subject to 40 CFR 60.92, PM emission standard of 0.04 grains/dscf and opacity limit of 20%.

Drum Mix Asphalt Plant:

One (1) 400 Ton/Hr Natural Gas/ Distillate Oil-fired Drum Mix Asphalt Plant Mixer controlled by a Reverse Air Closed Suction Baghouse with Knockout Box and Fabric Filter;
Five (5) 300 Ton Asphalt Loadout Silos;
Three (3) 35,000-gallon Asphaltic Cement Storage Tanks;
Five (5) Asphalt Plant Conveyors;
Two (2) Asphalt Plant Screens;
Six (6) Aggregate Bins

Stone (Aggregate) Crushing plant:

Four (4) Crushing Plant Conveyors (one enclosed);
One (1) 150 Ton/hr Portable Crusher;
One (1) Crushing Plant Screen;
Two (2) RAP Bins; and
One (1) RAS Bin

Emission unit Process Description:

The emissions from the drum mixer/dryer are controlled by a Reverse Air Closed Suction Baghouse with Knockout Box and Fabric Filter. There are three 35,000-gallon Asphalt Storage tanks. There are unit specific emission limits for the Hot Drum Mix Asphalt plant and the aggregate plant operations. These limits are listed in PSC#12 of the Construction permit # 17070024 (copy attached to this report). The source is required to maintain monthly and annual asphalt concrete production records, waste oil usage, sulfur content and ash content weight % data, periodic inspection and maintenance records for the drum-mix asphalt plant dryer baghouse, malfunction incident records and monthly and annual emission records.

Inspection Observations:

7/26/2018: The Hot Mix Asphalt plant was observed in operation. The 400 Ton/hour Natural Gas fired Counter-flow Drum Mix Asphalt Plant Mixer which is controlled by a baghouse with knockout box & Fabric filter was in operation. The Hot Mix Asphalt Plant was operating at approximately 248 Tons/hour. The drum drier emissions are ducted to a baghouse and no visible emissions were observed from the baghouse exhaust. The source started their operation around June 2nd week and started making test strips for IDOT and CDOT. On July 26th, 2018, the total production was 636.4 tons of HMA (Hot Mix Asphalt) up until 10:00 AM. There were no other big orders for today. July 26th production comprised of 346.7 tons for the CDOT- Chicago Department of Transportation, N30 State Surface HMA and 289.7 tons of N50 State Surface HMA and the balance were some small quantity private orders. The trucks loadout, the silo filling and rejects cleanout process were observed. There were minimal process fugitive emissions observed. These emissions dissipated within few feet from the emission point. The windspeed was 15 -20 mph at that time. The author observed the Silo filling and the trucks loadout also. The author did not experience any odors while the drum mixer was in operation and the silo filling was taking place. The baghouse was in operation and no visible emissions were observed from the baghouse exhaust. The author was positioned approximately 30 to 40 feet from the trucks loadout station. There were no odors experienced at the trucks loadout location. No official opacity readings were taken.

The 150-Ton Portable crusher was observed in operation. The RAP (Recycled Asphalt Pavements) processing/crushing was observed. The material was being wetted with a water spray system on the feed hopper. There were no visible fugitive PM emissions at the crusher. The conveyors were transferring the crushed RAP to two piles, a FRAP- (Fine Recycled Asphalt Pavements) pile and a CRAP- (Course Recycled Asphalt Pavements) pile. The source testes the various aggregates for moisture content in their lab. The Moisture content record copy is attached. Production record copy is attached. Records review could not be done since the source just started their operations and there were no monthly or annual production records to review.

6/28/2018: The author reached the facility neighborhood at around 9:30 AM. It was difficult to observe the facility operations from a distance, since there are few old, building blocking the view. No visible emissions were noticed and no organic odors were felt outside the plant while the author drove around the neighborhood. The asphalt production for the day has ended at around 9:15 AM and the source had produced 338.7 tons of Hot Mix Asphalt for that day. There were no other orders for the day. Therefore, the author could not observe the process in operation. The Plant Manager was informed to keep the author informed of the production schedule and when there is a 1000 tons production day. The author did observe truck loadout and very minimal Fugitive visible emissions were observed at the truck loadout station. It dissipated within few seconds. No VE readings were taken. Then the storage piles were observed. The crusher was not in operation for the day. As per the Plant Manager, the source was not going to have the crusher in operation for almost a week, since they had enough course and fine RAP materials in stock. The author informed the Plant Manger to inform him when the Portable Crusher unit will be in operation and crushing RAP-Recycled Asphalt Pavements.

The author reviewed the Construction permit conditions with the Plant Manager and explained about the various operational requirements and recordkeeping and reporting requirements in the permit conditions. The Fugitive Particulate operating program copy was obtained and the various requirements were discussed. The watering frequency and street sweeping frequency was discussed. Next inspection will be conducted to observe the Asphalt Plant Drum Mixer in operation and also to observe the 150-ton Portable crusher in operation.

Permitting Requirements: Source was issued a Construction Permit# 17070024 for a Hot Mix Asphalt Plant Construction on October 26, 2017.

PSC# 2 of permit # 17070024:

This drum-mix asphalt plant, that commences construction or modification after June 11, 1973, is subject to the requirements of the New Source Performance standards (NSPS) for Hot Mix Asphalt Facilities, 40 CFR 60, Subparts A and I. Pursuant to 40 CFR 60.92, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

i. Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf); or
ii. Exhibit 20 percent opacity, or greater.

Inspection comments:

The stack test has not been scheduled yet since they have not achieved maximum production throughput yet. As per PSC# 14 of their construction permit, the source should conduct stack test within 60 days after achieving the maximum production rate and the stack test must be conducted no later than 180 days after initial startup. Compliance determination is not applicable.

PSC# 11g. of Construction permit# 17070024:

The surface moisture content of the aggregate to be processed in the crushing plant at this source shall be at least 1.5% by weight. The Permittee shall show compliance with this requirement as follows:

i. Water sprays shall be used on the emission units associated with the crushing plant (e.g., crushers, conveyors, and stockpiles, etc.) as necessary, except when weather conditions are below or expected to fall below freezing temperatures, to produce a moisture content of 1.5% by weight or higher to reduce particulate matter emissions; or
ii. Demonstrate compliance with Condition 11(i) by following the testing requirements of Condition 19(b).

Inspection comments:

Water sprays are used at the crusher operation. The Moisture content is analyzed in their laboratory daily. Today's moisture content record copy is attached. The records indicate moisture content above 1.5%.

PSC#12a. Emissions and operation of the drum mix asphalt plant shall not exceed the following limits:

i. Asphalt Production Limits:

Asphalt Concrete Production Rate		
(Tons/Hour)	(Tons/Month)	(Tons/Year)
400	148,333	890,000

Inspection comments:

The facility started production on June 13th, 2018. In June, the facility has made test strips for IDOT and CDOT during the past month and the Materials procurement divisions for the State and City departments of Transportation are in the process of evaluating their products. The source is waiting for approval from IDOT. Their permissible production limit for a month is 148,333 tons/month. The plant produced 9035 tons of Asphalt concrete in June and 9389 tons of Asphalt concrete in July 2018. In June and July, the facility produced some small private orders and test strips for the IDOT. The monthly production limits were not exceeded.

Applicable Regulations: 35 IAC 201.175, 35 IAC 212.301, 35 IAC 212.321

Fugitive Particulate Operating Program:

Is one required by Part 212 or permit?

Yes. The facility is subject to FPOP requirement pursuant to Part 212, based on its SIC code 2951 and also it is a permit requirement.

The Fugitive Particulate Operating program submitted by the facility in July 2017 was reviewed and the source is in the process of revising and updating the FPOP.

- Does the site currently have a fugitive dust issue or have the potential for fugitive dust generation?
  The facility has paved most of the plant's traffic areas. All truck traffic is on paved roads. Potential for fugitive dust is minimized because of paved roads. Facility has a water truck available on site and it is used on an as needed basis. The street sweeper is used on a weekly basis.

  There is a water spray system available at the crusher feed hopper to wet the material being crushed. It was observed in operation. No visible fugitive Particulate Matter emissions were observed at this operation.

- Does the site currently have a fugitive particulate operating program?
  Yes. FPOP submitted by the facility was reviewed and the source is in the process of revising and updating the FPOP.

Odors:

The author observed the Silo filling and the trucks loadout also. The author did not experience any odors while the drum mixer was in operation and the silo filling was taking place. The baghouse was in operation and no visible emissions were observed from the baghouse exhaust. The author was positioned approximately 30 to 40 feet from the trucks loadout station. There were no odors experienced at the trucks loadout location.

During this inspection no odors were experienced at the facility while the Hot Mix Asphalt plant was in operation.

Other Information:

Source is in the process of revising and updating the FPOP previously submitted to the Agency. Therefore, FPOP copy is not attached, and review checklists are not attached. Author will conduct the FPOP review once the revised and updated FPOP is received by the Agency.

CONCLUSION:	
Violation(s) Alleged:	No apparent violations were observed.
Recommended Action(s):	The author reviewed their Construction permit with Joe Haughey, the Plant Manager for the facility and the following recommendations were made. 1) Source must follow the FPOP they have submitted to the Agency. 2) Source must maintain records as indicated in their FPOP. Author suggested keeping weekly sweeping records and maintain water usage records at the crusher and for the facility. 3) If the Contact person has changed, the Source must inform IEPA with the information of the new contact person. 4) Source is required to conduct stack test within 60 days after achieving maximum production and within 180 days of initial startup. 5) Source to inform the Agency when there is an equipment malfunction immediately.

cc: DAPC – Division File
DAPC/FOS – Des Plaines

Attachments:

1) Production data for July 26th and June 28th, 2018.
2) Moisture Content record for July 26, 2018
3) Equipment list

Daily Totals Report for 07/26/18

Gencor

Manual

Material Name	Material Description	Mix To Silo	Mix To Reject
		3.4 Ton	2.1 Ton
Virgin Scale	Virgin Scale	90.1 Ton	14.4 Ton
Rap Scale	Rap Scale	50 Ton	2.7 Ton
Total		136.7 Ton	16.9 Ton

N30 SC — N30 State Surface 211431 (CDOTR028H)

Material Name	Material Description	Mix To Silo	Mix To Reject
AC		14 Ton	0 Ton
FRAP	3/16 Minus Rap	60.2 Ton	0 Ton
FM20	Hanson 028FM20	96.4 Ton	0 Ton
CM13	Hanson 022CM13	75.3 Ton	0 Ton
FM22	Hanson 038FM22	70 Ton	0 Ton
CRAP	5/8-3/16 Rap	29.3 Ton	0 Ton
RAS	Processed Shingles	12.9 Ton	0 Ton
MF	Mineral Fill	1.7 Ton	0 Ton
Virgin Scale	Virgin Scale	233.6 Ton	0 Ton
Rap Scale	Rap Scale	86.1 Ton	0 Ton
Total		346.7 Ton	0 Ton

N50 SC — N50 State Surface 221531 (19514R-81BIT008X)

Material Name	Material Description	Mix To Silo	Mix To Reject
AC		13.1 Ton	0.1 Ton
FRAP	3/16 Minus Rap	48.4 Ton	2.4 Ton
FM20	Hanson 028FM20	69.3 Ton	3.5 Ton
CM13	Hanson 022CM13	56.8 Ton	2.9 Ton
FM22	Hanson 038FM22	66.1 Ton	3.3 Ton
CRAP	5/8-3/16 Rap	48.2 Ton	2.3 Ton
Virgin Scale	Virgin Scale	184.5 Ton	6.8 Ton
Rap Scale	Rap Scale	93.3 Ton	4.5 Ton
Total		289.7 Ton	11.4 Ton

All

Material Name	Material Description	Mix To Silo	Mix To Reject
AC		27.2 Ton	0.1 Ton
FRAP	3/16 Minus Rap	108.6 Ton	2.4 Ton
FM20	Hanson 028FM20	165.7 Ton	3.5 Ton
CM13	Hanson 022CM13	132.1 Ton	2.9 Ton
FM22	Hanson 038FM22	136.1 Ton	3.3 Ton
CRAP	5/8-3/16 Rap	77.5 Ton	2.3 Ton

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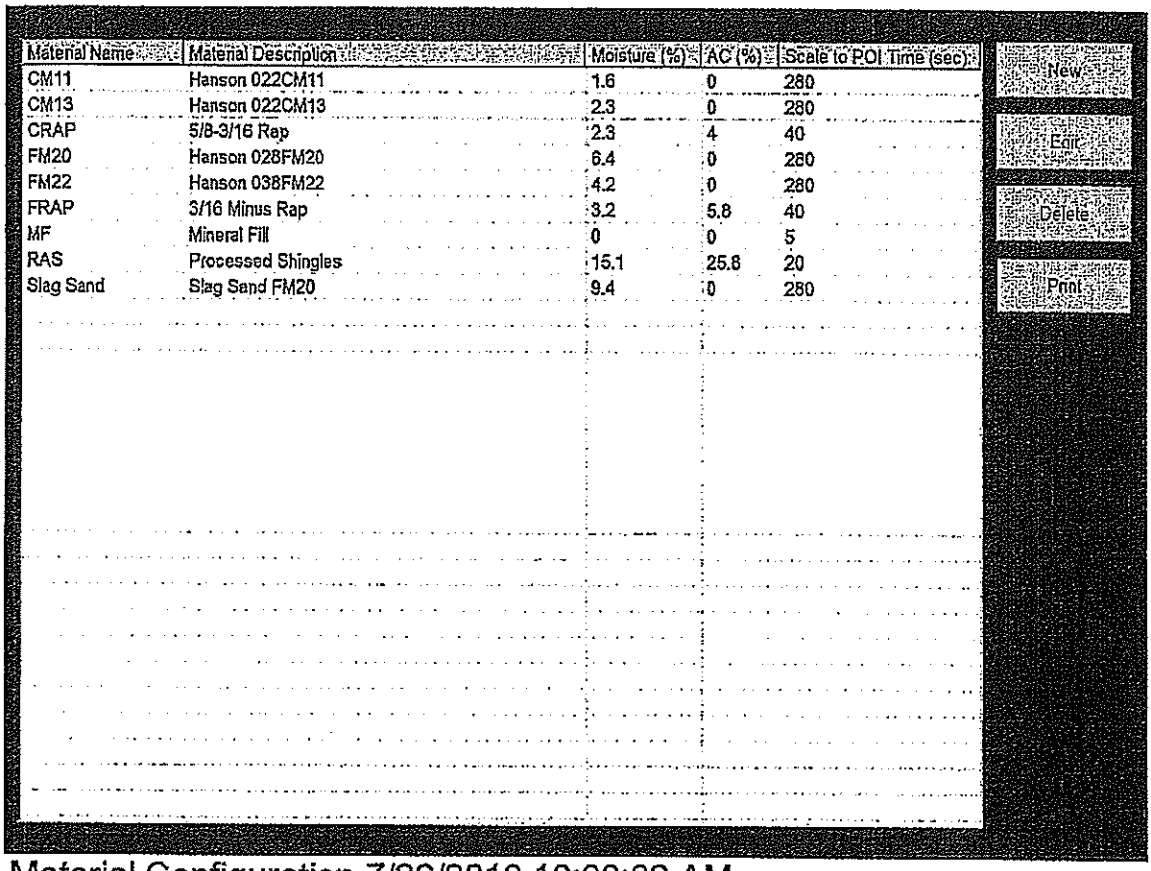

Material Name	Material Description	Moisture (%)	AC (%)	Scale to POI Time (sec)
CM11	Hanson 022CM11	1.6	0	280
CM13	Hanson 022CM13	2.3	0	280
CRAP	5/8-3/16 Rap	2.3	4	40
FM20	Hanson 028FM20	6.4	0	280
FM22	Hanson 038FM22	4.2	0	280
FRAP	3/16 Minus Rap	3.2	5.8	40
MF	Mineral Fill	0	0	5
RAS	Processed Shingles	15.1	25.8	20
Slag Sand	Slag Sand FM20	9.4	0	280

Material Configuration 7/26/2018 10:00:02 AM

Appendix A Equipment List

Equipment	Description	Control Device	Exempt From Permitting	Basis for Exemption
Load Out Silos	(5) 300 Ton Load Out Silos	None	No	N/A
Mixing Plant	(1) Counterflow Drum Mixer (Natural Gas / Fuel Oil #2 Fired Dryer)	89,217 cfm Baghouse with Knockout Box & Fabric Filter	No	N/A
Storage Tanks	(3) 35,000 Gallon Asphaltic Cement Storage Tank	None	No	N/A
Conveyors	(5) Asphalt Plant Conveyors, (4) Crushing Plant Conveyors	8-Open (Moisture Controlled) 1-Enclosed	No	N/A
Crusher	(1) 150 tph Portable Crusher	Moisture Content	No	N/A
Screens	(2) Asphalt Plant Screens, (1) Crushing Plant Screen	None	No	N/A
Storage Bins	(6) Aggregate Bins, (2) RAP Bins, (1) RAS Bin	None	No	N/A