Marila Rachel -Dina -

DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

FCE Summary Report

Location : 2	000 GLENDENNING			District :	Kalamazoo
				County :	KALAMAZOO
City: KA	AMAZOO State:	MI Zip Code :		npliance tus :	Compliance
Source Class	SM OPT OUT		S	taff: Monica	a Brothers
FCE Begin Da	te : 07/23/2018			CE Completion ate :	7/23/2019

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
07/23/2019	Scheduled Inspection	Compliance	Unannounced scheduled inspection
04/02/2019	MAERS	Compliance	No changes were made to their 2018 MAERS Report.

Name: Montelall_ Date: 8/19/19 Supervisor: Ru \$120/19

Page 1 of 1

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

3299249650		
FACILITY: Michigan Paving & N	laterials Co. Kalamazoo Asphalt	SRN / ID: B2992
LOCATION: 2000 GLENDENNI	NG, KALAMAZOO	DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: Jeff Reed , Assistan	t HMA Manager	ACTIVITY DATE: 07/23/2019
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced sched	luled inspection	
RESOLVED COMPLAINTS:		

This was an unannounced, scheduled inspection. Staff, Monica Brothers and Rachel Benaway, arrived on-site at about 9:30am. Upon arrival, the plant did not seem to be running. We first went to the scale house, where we were soon met by Jeff Reed, the Assistant HMA Manager. He took us to the control room first to review their records, before taking us on a tour of the plant.

Michigan Paving and Materials is a hot-mix asphalt facility. They are an Opt-Out facility for HAPs and are currently operating under PTI# 217-91E. They have about four employees who run the asphalt operations, one employee in the scale house, and four more employees in the lab. They run from late April to around Thanksgiving each year, and their shifts vary depending on asphalt demand. They do not have any emergency generators or parts washers at the facility. They do have a hot oil-boiler that circulates to the AC tanks. The facility submitted an exemption for warm-mix asphalt equipment in March 2014, but they still have not installed any such equipment.

EUHMAPLANT and FGFACILITY:

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The plant was not operating at the time of inspection. They use only natural gas and have not used recycled used oil (RUO) since 2009. They are keeping track of the flash-point, specific gravity, btu/lb, halogen content, and sulfur content of their natural gas, and it is under all of the required limits in their PTI. The sulfur content is 0.22% by weight, and the limit is 1.5%. They do not take in any material that would have asbestos. They are permitted for 650 tons/hour of product, on a 24-hour rolling timescale, and their records show that they are consistently under that limit. They usually run at about 350 tons/hour, and the highest I saw in their records for this season so far was 353 tons/hour on June 25, 2019. They also have a limit of 895,000 tons/year of HMA produced on a 12-month rolling timescale, and the highest for this season so far was only 334,469 tons/year.

They are doing daily pressure drop readings for the baghouse, and they are consistently around 4.7 inches of water. They are limited to using up to 50% reclaimed asphalt pavement (RAP), and their records show that they are under this limit, with 45% being their highest for this season. They continuously monitor the virgin aggregate and RAP feed rate. They have records of their CO monitoring, which should occur upon start-up of each paving season and after every 500 hours of operation. They are doing at least 8 readings per monitoring session. Their records show that their CO readings have been under the required 500 ppm. They are doing daily opacity readings on the baghouse, and their records show that they have not seen any opacity this season. They are also keeping a log of significant maintenance and daily inspections at the plant.

They are keeping records of their natural gas usage, the amount of HMA containing RAP they produce, and the average percent of RAP/ton of HMA on a monthly basis. They are keeping the required daily records of the virgin aggregate feed rate, the RAP feed rate, and the asphalt product temperature.

They are also keeping records 12-month rolling records and monthly records of all criteria pollutants and HAPs emitted at the facility. They are limited to 89.9 tons/year each of CO and SO2, and 9.0 tons/year for each individual HAP and 22.5 tons/year for aggregate HAPs. Their records show that they are under these limits.

EUYARD:

During the facility tour, the roadways and yard areas seemed to be pretty clean. The speed limits posted for vehicles is 8 mph, and their permit requires it to be 10 mph or less. They are keeping records of their fugitive dust control activities and are submitting fugitive dust emissions calculations to MAERS each year.

EUACTANKS:

There are four AC tanks, which are above ground, but covered with dirt and a layer of asphalt for insulation. The tanks are kept at about 300°F and share a vapor condensation and recovery system. They get a few different grades of AC from refineries, which are used in the many different recipes of asphalt.

EUSILOS:

The emissions from the silos and the truck load-out area go through a blue smoke filter, which is a 2stage filter that filters particulate and condenses the gases. The facility has the option to route these emissions back to the drum, but they have stated in the past that this has a negative effect on the combustion air, so they have always used the blue smoke filter instead.

APPENDIX A: FUGITIVE DUST CONTROL PLAN

They are keeping track of their fugitive dust control activities and are watering at least two times per month. The speed limits are 8 mph, which is below the required 10mph in their permit. During the inspection, the unpaved roadways seemed to be below the limit of 5% opacity, and the trucks that I observed coming and going from the facility were covered.

APPENDIX B: MAINTENANCE PROGRAM FOR THE FABRIC FILTER DUST COLLECTOR

They are recording their daily pressure drop checks, and they are consistently above the required 2.0 inches of water. Usually it is around 4.7 inches of water. The baghouse has a high temperature alarm that is set at 400°F and will begin shutting down the plant if the issue is not quickly resolved. The plant was not operating at the time of inspection, but Jeff said that the temperature is usually around 290°F when running. Their records indicate that they have not seen any opacity from the baghouse so far this season. They have records of their blacklight tests, which are conducted at least once per paving season. They also have the required fabric filter inspection records and records of maintenance activities performed on the baghouse. During the inspection, Jeff showed me that they are keeping at least 15 filter bags, 5 lbs of blacklight powder, and two tubes of caulk on hand, as required by their permit.

APPENDIX C: START-UP, SHUT-DOWN, MALFUNCTION ABATEMENT PLAN

They have records of their daily inspections, which are conducted each morning before start-up, and they have documentation of the preventative maintenance performed during the daily inspections, as well as during the annual inspections during shutdown.

At the time of inspection, it seems like the facility was in compliance.

NAME Mumman

DATE 8/19/19 SUPERVISOR RIL 8/20/19

Michigan Paving and Materials Co.

Mix Change Records

Date	Time	Mix Type	Tons
	8:55a	13a	1090
	6:30a	4e1	1415
	7:00a	com top	1604
	4:30a	4e1	230
	7:15a	base	165
	7:50a	4e1	0:00
6	10:35a	5e1	795
	1:15p	4e1	205
	5:30a	lvsp	299
	6:30a	13a top	355
	7:45a	base	169
	8:25a	5e1	435
	9:47a	base	253
	10:40a	13a top	279
	3:00p	com top	201
	5:45a	com top	395

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									IFICATIO			<u>^</u>						
			Amonto (An	SED more Con	Imium (Cal) 52	DO NOT AC							ens > 4,000 ppm	Sulfur >1.6%				
	¹ RUO Tank Volun	an and NO Made											503 - 4,000 ppm	Sulla 21 576				
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	² Orange Previoua	Contraction of the Contraction of the		, NG Meter Re	ading, Galcula	ited Oli API an	d Sulfur C	iontent vali	les must bi	e transferre	ND .							Prost Sectors
	from the last day																	(1950)
an and the billing of	and the fighter of	METER RE	ADINGS		OILS	SHIPMENTS RI	ECEIVED				(CALCULATED I	RUO TANK AVE	RAGES			DAILY USAGE	S
DATE	Fuel Type Enter: 1. Natural Gas 2. RUO 3. Distillate Oil 4. Blended Fuel Oil 5. Propane 6. Residual Oil	Oil Tank Volume (Gals)	NG Meter Reading (MCF)	Shipment Received (Gals)	SULFUR %Wgt	Halogen Content (ppm)	Specific Gravity	Flash point (°F)	HHV (BTU/b)	Daily Oil Sulfur Content (%Wgt)	Daily Oil Specific Gravity	Daily Oil Density (Lbs/Gal)	Daily Halogen Content (ppm)	Daily Flash Point (°F)	Daily HHV (BTU/lb)	Oil Used Per Day (Gal)	Oil Used Per Day (Lbs)	NG Used Per Day (MCF)
Permit Condition	1.2, 1.24a									1.24b	1.245			1.24b	1.24b	1.24a		
Previous Year	[ſ				l	[and the second second	la de la compañía de				1		1	
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1/2/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/3/2019	1	353	84,663			1				0.22	0.87	7.26	100	230	19206	0	0	0
1/4/2019	1	353	84,663		Contraction of the second	A CONTRACTOR			and an issue	0.22	0.87	7.26	100	230	19206	0	0	0
1/5/2019	1	353	84,663		and the second second					0.22	0.87	7.26	100	230	19206	0	0	0
1/6/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/7/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
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1/11/2019		353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/12/2019	1	353	84,663				-		and the second	0.22	0.87	7.26	100	230	19206	ö	0	0
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1/14/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	Ö	0	0
1/15/2019	Ý	353	84.663	energian and	Conservation of the					0.22	0.87	7.26	100	230	19206	Ö	0	0
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1/17/2019	1	353	84,663		And the Parket					0.22	0.87	7.26	100	230	19206	0	0	0
1/18/2019	Second State	353	84,663				a server a server a			0.22	0.87	7.26	100	230	19206	0	0	0
1/19/2019	1	353	84,663			See all set of the		No. I State of the		0.22	0.87	7.26	100	230	19206	0	0	0
1/20/2019	1	353	84,663					a transfer of the		0.22	0.87	7.26	100	230	19206	0	0	0
1/21/2019	1	353	84,663				-	and the st		0.22	0.87	7.26	100	230	19206	0	0	0
1/22/2019	1	353	84,663		and the second			Contraction of the		0.22	0.87	7.26	100	230	19206	0	0	0
1/23/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/24/2019	1	353	84,663						CONTRACTOR OF	0.22	0.87	7.26	100	230	19206	0	0	0
1/25/2019	1	353	84,663	and the second second		and a second second				0.22	0.87	7.26	100	230	19206	0	0	0
1/26/2019	1	353	84,663				and the second			0.22	0.87	7.26	100	230 230	19206	0		0
1/27/2019	1	353 353	84,663							0.22	0.87	7.26	100	230	19206	0		0
1/28/2019		353	84,663	A CONTRACTOR OF THE OWNER OF THE			CONTRACTOR OF	Contraction of the	A PROCESSION OF THE	0.22	0.87	7.26	100	230	19206	0	0	0
1/29/2019 1/30/2019		353	84,663 84,663				-			0.22	0.87	7.26	100	230	19206	0	0	0
1/30/2019	-	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
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DAILY FUEL LOG FOR 2019 RUO SPECIFICATIONS DO NOT ACCEPT RUO THAT EXCEEDS ANY OF THE FOLLOWING Arsenic (As) >5.0 ppm, Cadmium (Cd) >2.0 ppm, Chromium (Cr) >10.0 ppm, Lead (Pb) > 100 0 ppm, PCBs > 1.0 ppm, Total Halogens > 4,000 ppm, Sulfur >1 5% ¹ RUO Tank Volume and NG Meter Readings should be taken at the end of each production day. A value must be entered even if there is no production. ² Orange Previous Years Ending Tank Volume. NG Meter Reading, Calculated Oil API and Sulfur Content values must be transferred from the last day of the previous month. METER READINGS¹ OIL SHIPMENTS RECEIVED CALCULATED RUO TANK AVERAGES DAILY USAGES Fuel Type Enter: 1. Natural Gas 2. RUO Daily Oil NG Meter Shipment Halogen Daily Oil Daily Oil Oil Used NG Used 3. Distillate Oil Oil Tank SULFUR Flash HHV Daily Flash Specific Sulfur Daily Halogen Daily HHV Oil Used Per DATE Received Specific Per Day Reading Content Density Per Day 4. Blended Fuel Volume (Gals) %Wgt Gravity point (°F) (BTU/lb) Content Content (ppm) Point (°F) (BTU/lb) Day (Lbs) (MCF) (Gals) (ppm) Gravity (Lbs/Gal) (Gal) (MCF) Oil (%Wgt) 5. Propane 6. Residual Oil 4/1/2019 353 353 84,663 0.87 0.22 7.26 100 230 19206 0 0 0 84,663 4/2/2019 0.22 0.87 7.26 100 230 19206 Ο 0 0 4/3/2019 353 353 84,663 0.22 0.87 7.26 100 230 19206 0 0 0 4/4/2019 84,663 0.22 0.87 7.26 100 230 19206 0 0 0 353 100 230 230 4/5/2019 84,663 0.22 0.87 19206 0 0 0 4/6/2019 353 84,663 0.22 0.87 7.26 100 19206 0 0 0 4/7/2019 353 84,663 0.22 0.87 7.26 100 230 19206 0 0 0 353 353 100 100 4/8/2019 84,663 0.22 0.87 0.87 7.26 7.26 230 230 19206 0 0 0 84,663 4/9/2019 19206 0 0 0 4/10/2019 353 84,663 0.22 0.87 7.26 100 230 19206 0 0 0 353 353 84,663 4/11/2019 0.22 0.87 7.26 100 230 19206 0 0 0 7.26 1 85,103 100 230 440 4/12/2019 0.22 0.87 19206 0 0 4/13/2019 353 85,103 0,22 0.87 100 230 19206 0 0 1 0 4/14/2019 353 85,103 1 0.22 0.87 7.26 100 230 19206 0 0 0 230 230 4/15/2019 52.1 353 85,604 0.22 0.87 7.26 100 19206 0 0 501 353 85,970 7.26 4/16/2019 ୍ୟୁ 0.22 0.87 100 19206 0 0 366 4/17/2019 353 86,400 0.22 0.87 7.26 100 230 19206 0 0 430 23 4/18/2019 353 7.26 100 19206 86,400 0.22 0.87 230 0 0 0 4/19/2019 353 86,400 100 0.22 0.87 7.26 230 19206 0 0 0 79 D 4/20/2019 353 86,400 0.22 0.87 7.26 100 230 19206 0 0 0 4/21/2019 353 87,033 0.22 0.87 7.26 100 230 19206 0 633 646 0 4/22/2019 353 87,723 0.22 0.87 7.26 100 230 19206 0 0 690 353 7.26 100 4/23/2019 1 88,332 0.22 0.87 230 19206 0 0 609 4/24/2019 1 353 88,645 0.22 0.87 7.26 100 230 19206 0 0 313 353 353 89,052 7.26 100 230 230 4/25/2019 0.22 0.87 19206 407 0 0 4/26/2019 1 89,294 0.22 0.87 7.26 100 19206 0 242 0 4/27/2019 1 353 89,294 0.22 0,87 7,26 100 230 19206 0 0 0 4/28/2019 353 0.22 0.87 7,26 100 230 19206 0 0 1 89,294 0 4/29/2019 4 353 89,294 0.22 0.87 7.26 100 230 19206 0 0 0

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								UO SPEC										
			Arsenic (As) >5.0 ppm, Ca	dmium (Cd) >2.						CBs > 1.0 p		ens > 4,000 ppm,	Sulfur >1 5%				
	¹ RUO Tank Volun						1				Web and the second s	aduction.						
	² Orange Previous			, NG Meter Re	ading, Calcula	ited Oll API an	nd Sulfur (Content val	ues must b	e transferm	bd							
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DATE	Fuel Type Enter: 1. Natural Gas 2. RUO 3. Distillate Oil 4. Blended Fuel Oil 5. Propane 6. Residual Oil	Oil Tank Volume (Gals)	NG Meter Reading (MCF)	Shipment Received (Gals)	SULFUR %Wgt	Halogen Content (ppm)	Specific Gravity	Flash point (°F)	HHV (BTU/Ib)	Daily Oil Sulfur Content (%Wgt)	Daily Oil Specific Gravity	Daily Oil Density (Lbs/Gal)	Daily Halogen Content (ppm)	Daily Flash Point (°F)	Daily HHV (BTU/lb)	Oil Used Per Day (Gal)	Oil Used Per Day (Lbs)	NG Used Per Day (MCF)
5/1/2019	1	353	89,682							0.22	0.87	7.26	100	230	19206	0	0	86
5/2/2019	1	353	90,145							0.22	0.87	7.26	100	230	19206	0	0	463
5/3/2019	1	353	90,367	and the second second						0.22	0.87	7.26	100	230	19206	0	0	222
5/4/2019	1	353	91,099							0.22	0.87	7.26	100	230	19206	0	0	732
5/5/2019	1	353	91,152							0.22	0.87	7.26	100	230	19206	0	0	53
5/6/2019	1	353	91,382							0.22	0.87	7.26	100	230	19206	0	0	230
5/7/2019	1	353	91,821							0.22	0.87	7.26	100	230	19206	0	0	439
5/8/2019	1	353	91,982							0.22	0.87	7.26	100	230	19206	0	0	161
5/9/2019	1	353	92,155							0.22	0.87	7.26	100	230	19206	0	0	173
5/10/2019	1	353	92,428							0.22	0.87	7.26	100	230	19206	0	0	273
5/11/2019	1	353	92,533							0.22	0.87	7.26	100	230	19206	0	0	105
5/12/2019	1	353	92,533							0.22	0.87	7.26	100	230	19206	0	0	0
5/13/2019	1	353	92,836							0.22	0.87	7.26	100	230	19206	0	0	303
5/14/2019	1	353	93,432							0.22	0.87	7.26	100	230	19206	0	0	596
5/15/2019	1	353	93,624							0.22	0.87	7.26	100	230	19206	0	0	192
5/16/2019	1	353	94,075							0.22	0.87	7.26	100	230	19206	0	0	451
5/17/2019	1	353	94,320							0.22	0.87	7.26	100	230	19206	0	0	245
5/18/2019	1	353	94,687	States and the						0.22	0.87	7.26	100	230	19206	0	0	367
5/19/2019	1	353	94,687							0.22	0.87	7.26	100	230	19206	0	0	0
5/20/2019	1	353	95,208							0.22	0.87	7.26	100	230	19206	0	0	521
5/21/2019	1	353	95,738	We want the second						0.22	0.87	7.26	100	230	19206	0	0	530
5/22/2019	1.00	353	96,078							0.22	0.87	7.26	100	230	19206	0	0	340
5/23/2019	1	353	96,490							0.22	0.87	7.26	100	230	19206	0	0	412
5/24/2019	1	353	96,490				L			0.22	0.87	7.26	100	230	19206	0	0	0
5/25/2019	1	353	96,490							0.22	0.87	7.26	100	230	19206	0	0	0
5/26/2019	1	353	96,490				1			0.22	0,87	7.26	100	230	19206	0	0	0
5/27/2019	1	353	96,490							0.22	0.87	7.26	100	230	19206	0	0	0
5/28/2019	1	353	96,773							0.22	0.87	7.26	100	230	19206	0	0	283
5/29/2019	1	353	97,335			L	ļ			0.22	0.87	7.26	100	230	19206	0	0	562
5/30/2019	1	353	98,170				-			0.22	0.87	7.26	100	230	19206	0	0	835
5/31/2019	1	353	98,292							0.22	0.87	7.26	100	230	19206	0	0	122

Michigan Paving and Materials Co. - Globe Construction Company

Michigan Paving & Materials Co. - Globe Construction Company DAILY PRODUCTION LOG FOR 2019

	1 am BiBC	untant of RAP Mix	- C								PERI	MIT PRODI	JCTION LIMI	T = 500 TO!	NS HMA PER	HOUR	-											
	Нот м	X ASPHALT PR	ODUCTION		REPATE	Ac Asphalt	[OPERATION	Bachouse	WEATHER	Y	FUGITIVE	CUST PLAN Reason for		Q.			GTION: will be d	ene trash mernir Seals for Dust	Soals for	notis warreing	Baghouse	Average	Average	OAILY /	VERAGES		
DATE	Total HMA Produced (Tons)	Total Virgin HMA Produced (Tons)	Total HMA with RAP Produced (Tons)	Virgin Aggregate Used (Tens-Wet)	Including Millings Used	Asphalt Cement Used (Tons)	Hours of Operation	HMA Product Temperature (°F)	Pressure Drop #1 (inch H ₂ O)	Rain Today _(Y/N)	Dust Control Applied (Y/N)	Time of Application	Application	Type of Control (H ₂ O, Other)	Roadways (fugitive dust)	Cold feed bins (falling aggregate)	Aggregate feed belts (falling aggregate)	escaping - Dryer & Bucket elevator	escaping - Aggregate chutes, screen door	Dust escaping - Weigh hopper and	Baghouse (stack opacity)	scrows (shaft and door soals for dust escaping)	RAP Contant ¹ (%)	Virgin Content (%)	AC Content	Production Rate Tons/Hr		Oil Usaqe I/ton HMA)
nit Condition	1.29	į 	1 240	İ			1.7	1,280	1,13, App. B	I дрр. А	APP.A			Арр.А	place	"n" if inspectio	n completed; re	ecord any mainter	iance or repairs or		Piant Maintenan	ce" tab	1.8, 1,240					
/1/2019 /2/2019 /3/2019						-				The last													0.00				0.00	
1/4/2019						-						and an and a second				ana ana ang dala Ing mang dalamang dalam							0.00	0.00	0.00	0,00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.000
/6/2019 /7/2019 /8/2019						<u>t</u>														0.0			0.00	0.00	0.00	0,00	0.00	0.000
/9/2019 10/2019 11/2019								Contractions and															0.00	0.00	0.00	0.00	0.00	0.000
12/2019					-	-							-										0.00	0.00	0.00	0.00	0.00	0.000
13/2019 14/2019 15/2019													-									-	0.00	0.00	0.00	0.00	0.00	0,000
6/2019 7/2019																	an da an Ingg						0,00	0.00	0.00	0.00	0.00	0.000
8/2019 9/2019 0/2019													-		-								0.00	0.00	0.00	0.00	0.00	0.000
2/2019	-							-															0.00	0.00	0.00	0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.000
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땁ኈ딵딶혇쇽펖묥뀰룑흕뇒굑쿖챓놦륺幋흀쇽쐻뵢댫뜼쇽┍┥吘놶놣 뉟횎츣끹깆즶Ҷᅴ┰긎깆줮섋쏚줚쐲쿅쎀뇤얾멶쬨눎숌쬨둼뮝웧쮬唇	ᅊᇏᆦᄧᆙᇏᄙᆸᅑᇃᄡᅌᇡᄧᆆᇔᇎన᠆ᆇᅊᆃᇦᆋᄬᇥᅊᆋᇏᅊᇏᄠᆋᇉᇉᅮൔൖൔᆿ᠆ᠳ᠆ᅆᄡൔൔ ᇃᅺᆑᅘᆋᇕᄡᇪᅿᇏᇶᇧᇊᆂᇊᇹᇯᄯᄖᇱᇡᡆݤᄔᇏᇊᆣᅿᆊᇄᅋᇯᅾᅭᇧᇯᇶᇸᇊᇹᇊ	⋠⋬⋷⋴⋬⋸⋬⋭⋭⋸⋺⋠⋈⋭⋴∊∊⋹∊⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴⋴
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# Michigan Paving & Materials Co. - Globe Construction Company Monthly Summaries 2018 - 2019

	¹ YELLOW HIGH	LIGHTED CELLS EXC	EED PERMIT LIM	ITS		
		HOT MIX ASPHAL	T PRODUCTION			RAW MATERIA
Month	Total HMA Produced Per Month (Tons)	Total HMA Produced Per 12-Month Rolling (Tons)	Total Virgin HMA Produced (Tons)	Total HMA with RAP Produced Per Month (Tons)	Virgin Aggregate Used (Tons-Wet)	Asphalt Ceme Used (Tons)
Permit Condition	1.29	1.6, 1.29				
PERMITS LIMITS ¹	na	895,000	na	na	na	na
January-2018	0	280008	0	0	0	
February-2018	0	280008	0	0	0	
March-2018	0	280008	0	0	0	
April-2018	780	270370	0	780	511.5	2
May-2018	35777	270508	0	35777	23653.99	1531.
June-2018	51445	301193	0	51445	35634.61	2113.
July-2018	45894	312635	3349	42545	34613.34	2152.2
August-2018	67096	326033	6572	60524	52182.78	3199.
September-2018	39584	299048	9929	29655	30257.5	1885.4
October-2018	53388	306856	711	52677	37844.9	2304.1
November-2018	15271	309235	0	15271	10566	
December-2018	0	309235	0	0	0	
January-2019	0	309235	0	0	0	
February-2019	0	309235	0	0	0	
March-2019	0	309235	0	0	0	
April-2019	13196	321651	0	13196	8908.3	519.
May-2019	26277	312151	974	25303	20146.2	1190.
June-2019	73763	334469	32164	41599	63423.66	3884.
July-2019	42482	331057	1302	41180	32702.6	1947.
August-2019	-	-	-		-	-
September-2019	-	-	-	-	-	-
October-2019	<b>-</b>	-	-	-	-	-
November-2019	-	-	-	-	-	-
December-2019	-	-	-	-	-	-

		RAP
	Total RAP	Average
Month	Aggregate Used	RAP
Worldr	Per Month (Tons)	Content (%)
Permit Condition		
PERMITS LIMITS ¹	na	50
January-2018	0	0
February-2018	0	0
March-2018	0	0
April-2018	249	31.9230769
May-2018	11040.01	30.8578416
June-2018	15669.45	30.4586452
July-2018	11280.74	26.5148431
August-2018	14249.18	23.5430243
September-2018	8508.5	28.6916203
October-2018	15009.1	28.4927008
November-2018	4583	30.0111322
December-2018	0	0
January-2019	0	0
February-2019	0	0
March-2019	0	0
April-2019	4213.2	31.9278569
May-2019	5903.38	23.3307513
June-2019	10694.41	
July-2019	9780.09	23.7496115
August-2019	-	-
September-2019		-
October-2019	-	-
November-2019	-	-
December-2019	-	-

Michigan Paving & Materials Co Globe Construction Company
Monthly Summaries 2018 - 2019

	FUEL INFC	RMATION	MO	SES	OPERATIONS		
Month	Natural Gas Used Per Month (MCF)	Oil Used Per Month (Gal)	Sulfur Content (%Wgt)	Specific Gravity	Flash Point (°F)	HHV (BTU/lb)	Hours of Operation
Permit Condition	Permit Condition						
PERMITS LIMITS ¹	na	na	na	na	na	na	na
January-2018	0	0	0.22	0.87	230	19206	0
February-2018	0	0	0.22	0.87	230	19206	0
March-2018	0	0	0.22	0.87	230	19206	0
April-2018	285	0	0.22	0.87	230	19206	2.5
May-2018	10976	0	0.22	0.87	230	19206	113.9
June-2018	14399	0	0.22	0.87	230	19206	155.4
July-2018	12197	0	0.22	0.87	230	19206	145.9
August-2018	17356	0	0.22	0.87	230	19206	215.1
September-2018	10188	0	0.22	0.87	230	19206	128.4
October-2018	14750	0	0.22	0.87	230	19206	173.3
November-2018	4744	0	0.22	0.87	230	19206	51.2
December-2018	0	0	0.22	0.87	230	19206	0
January-2019	0	0	0.22	0.87	230	19206	0
February-2019	0	0	0.22	0.87	230	19206	0
March-2019	0	0	0.22	0.87	230	19206	0
April-2019	4933	0	0.22	0.87	230	19206	45.1
May-2019	8696	0	0.22	0.87	230	19206	88.1
June-2019	20398	0	0.22	0.87	230	19206	226.5
July-2019	11082	0	0.22	0.87	230	19206	137.3
August-2019	-	-	-	-	-	-	-
September-2019	-		-	-	-	-	-
October-2019	-	-		-	-	-	-
November-2019	-	-	-	-	-	-	-
December-2019	-	-	-	-	-	-	-

Michigan Paving & Materials Co. - Globe Construction Company Monthly Summaries 2018 - 2019

Monthly TAC Emission Calculations

### ¹YELLOW HIGHLIGHTED CELLS EXCEED PERMIT LIMITS

									• •		
	P	M	C	0	SC	)2	N	Эx	Le	ad	
Month	(Lbs/Month)	(tons/12- Month Rolling)									
Permit Condition	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26, 4.1a	1.26, 4.1a	
PERMITS LIMITS ¹	na	na	na	89.9	na	89.9	na	53.7	na	8.9	
January-2018	0	4.620132	0	18.20052	0	0.4760136	0	3.640104	0	8.6802E-05	
February-2018	0	4.620132	0	18.20052	0	0.4760136	0	3.640104	0	8.6802E-05	
March-2018	0	4.620132	0	18.20052	0	0.4760136	0	3.640104	0	8.6802E-05	
April-2018	25.74	4.461105	101.4	17.57405	2.652	0.459629	20.28	3.51481	0.0004836	8.3815E-05	
May-2018	1180.641	4.463382	4651.01	17.58302	121.6418	0.4598636	930.202	3.516604	0.02218174	8.3857E-05	
June-2018	1697.685	4.9696845	6687.85	19.577545		0.5120281	1337.57	3.915509	0.0318959	9.337E-05	
July-2018	1.51E+03	5.16E+00		2.03E+01	1.56E+02	5.31E-01	1.19E+03	4.06E+00	2.85E-02	9.69E-05	
August-2018	2.21E+03	5.38E+00	8.72E+03	2.12E+01	2.28E+02	5.54E-01	1.74E+03	4.24E+00	4.16E-02	1.01E-04	
September-2018	1.31E+03	4.93E+00	5.15E+03	1.94E+01	1.35E+02	5.08E-01	1.03E+03	3.89E+00	2.45E-02	9.27E-05	
October-2018	1.76E+03	5.06E+00	6.94E+03	1.99E+01	1.82E+02	5.22E-01	1.39E+03	3.99E+00	3.31E-02	9.51E-05	
November-2018	5.04E+02	5.10E+00	1.99E+03	2.01E+01	5.19E+01	5.26E-01	3.97E+02	4.02E+00	9.47E-03	9.59E-05	
December-2018	0.00E+00	5.10E+00	0.00E+00	2.01E+01	0.00E+00	5.26E-01	0.00E+00	4.02E+00	0.00E+00	9.59E-05	
January-2019	0.00E+00	5.10E+00	0.00E+00	2.01E+01	0.00E+00	5.26E-01	0.00E+00	4.02E+00	0.00E+00	9.59E-05	
February-2019	0.00E+00	5.10E+00	0.00E+00	2.01E+01	0.00E+00	5.26E-01	0.00E+00	4.02E+00	0.00E+00	9.59E-05	
March-2019	0.00E+00	5.10E+00	0.00E+00	2.01E+01	0.00E+00	5.26E-01	0.00E+00	4.02E+00	0.00E+00	9.59E-05	
April-2019	4.35E+02	5.31E+00	1.72E+03	2.09E+01	4.49E+01	5.47E-01	3.43E+02	4.18E+00	8.18E-03	9.97E-05	
May-2019	8.67E+02	5.15E+00	3.42E+03	2.03E+01	8.93E+01	5.31E-01	6.83E+02	4.06E+00	1.63E-02	9.68E-05	
June-2019	2.43E+03	5.52E+00	9.59E+03	2.17E+01	2.51E+02	5.69E-01	1.92E+03	4.35E+00	4.57E-02	1.04E-04	
July-2019	1.40E+03	5.46E+00	5.52E+03	2.15E+01	1.44E+02	5.63E-01	1.10E+03	4.30E+00	2.63E-02	1.03E-04	
August-2019	-	-	-		-	-		-	-	-	
September-2019	-	-	-	-	-	-	an	-	-	-	
October-2019	-	-	-		-	-	-	-	-	-	
November-2019	-	-	-	-	-	-	-	-	-	-	
December-2019	-	-	-	-	-	-	-	-	-	-	

## Michigan Paving & Materials Co. - Globe Construction Compan Monthly Summaries 2018 - 2019

Monthly TAC Emission Calculations

### ¹YELLOW HIGHLIGHTED CELLS EXCEED PERMIT LIMITS

	Benz	zene	Tolu	iene	Ethylbe	enzene	Xyle	ene	Napht	halene	
Month	(Lbs/Month)	(tons/12- Month Rolling)									
Permit Condition	1.26, 4.1a	1.26, 4.1a									
PERMITS LIMITS ¹	na	8.9									
January-2018	0	0.05460156	0	0.0210006	0	0.03360096	0	0.0280008	0	0.01260036	
February-2018	0	0.05460156	0	0.0210006	0	0.03360096	0	0.0280008	0	0.01260036	
March-2018	0	0.05460156	0	0.0210006	0	0.03360096	0	0.0280008	0	0.01260036	
April-2018	0.3042	0.05272215	0.117	0.02027775	0.1872	0.0324444	0.156	0.027037	0.0702	0.01216665	
May-2018	13.95303	0.05274906	5.36655	0.0202881	8.58648	0.03246096	7.1554	0.0270508	3.21993	0.01217286	
June-2018	20.06355	0.05873264	7.71675	0.02258948	12.3468	0.03614316	10.289	0.0301193	4.63005	0.01355369	
July-2018	1.79E+01	6.10E-02	6.88E+00	2.34E-02	1.10E+01	3.75E-02	9.18E+00	3.13E-02	4.13E+00	1.41E-02	
August-2018	2.62E+01	6.36E-02	1.01E+01	2.45E-02	1.61E+01	3.91E-02	1.34E+01	3.26E-02	6.04E+00	1.47E-02	
September-2018	1.54E+01	5.83E-02	5.94E+00	2.24E-02	9.50E+00	3.59E-02	7.92E+00	2.99E-02			
October-2018	2.08E+01	5.98E-02	8.01E+00	2.30E-02	1.28E+01	3.68E-02	1.07E+01	3.07E-02	4.80E+00		
November-2018	5.96E+00	6.03E-02	2.29E+00	2.32E-02	3.67E+00	3.71E-02	3.05E+00	3.09E-02	1.37E+00		
December-2018	0.00E+00	6.03E-02	0.00E+00	2.32E-02	0.00E+00	3.71E-02	0.00E+00	3.09E-02	0.00E+00		
January-2019	0.00E+00	6.03E-02	0.00E+00	2.32E-02	0.00E+00	3.71E-02	0.00E+00	3.09E-02	0.00E+00		
February-2019	0.00E+00	6.03E-02	0.00E+00	2.32E-02	0.00E+00	3.71E-02	0.00E+00	3.09E-02	0.00E+00		
March-2019	0.00E+00	6.03E-02	0.00E+00	2.32E-02	0.00E+00	3.71E-02	0.00E+00	3.09E-02	1		
April-2019	5.15E+00	6.27E-02	1.98E+00	2.41E-02	3.17E+00	3.86E-02	2.64E+00	3.22E-02		1	
May-2019	1.02E+01	6.09E-02	3.94E+00	2.34E-02	6.31E+00	3.75E-02	5.26E+00	3.12E-02			
June-2019	2.88E+01	6.52E-02	1.11E+01	2.51E-02	1.77E+01	4.01E-02	1.48E+01	3.34E-02			
July-2019	1.66E+01	6.46E-02	6.37E+00	2.48E-02	1.02E+01	3.97E-02	8.50E+00	3.31E-02	3.82E+00	1.49E-02	
August-2019	-	-	-	-	-	-	-	-		-	
September-2019	-	-		-	-	-		-	-	-	
October-2019	-	-		-	-	-		-		-	
November-2019	-	-	-	-	-	-	-	-		-	
December-2019	-	-	-	-	-		-	-		<b> -</b>	

# Michigan Paving & N Monthly Summaries Monthly TAC Emission

¹YELLOW HIGHLIGHTED

	Formal	dehyde	Acro	lein	Arse	enic	Nic	kel	H ₂ S	50 ₄		
Month	(Lbs/Month)	(tons/12- Month Rolling)	(Lbs/Month)	(tons/12- Month Rolling)	(Lbs/Month)	(tons/12- Month Rolling)	(Lbs/Month)	(tons/12- Month Rolling)	(Lbs/Month)	(tons/12- Month Rolling)		
Permit Condition	1.26, 4.1a	1.26, 4.1a	1.26, 4.1a	1.26, 4.1a								
PERMITS LIMITS ¹	na	8.9	na	8.9	na	8.9	na	8.9	na	na		
January-2018	0	0.4340124	0	0	0	7.8402E-05	0	0.00882025	0	0		
February-2018 (		0.4340124	0	0	0	7.8402E-05	0	0.00882025	0	0		
		0.4340124	0	0	0	7.8402E-05	0	0.00882025	0	0		
April-2018	2.418	0.4190735	0	0	0.0004368	7.5704E-05	0.04914	0.00851666	0	0		
May-2018	110.9087	0.4192874	0	0	0.02003512	7.5742E-05	2.253951	0.008521	0	0		
June-2018	159.4795	0.46684915	0	0	0.0288092	8.4334E-05	3.241035	0.00948758	0	0		
July-2018	1.42E+02	4.85E-01	0.00E+00	0.00E+00	2.57E-02	8.75E-05	2.89E+00	9.85E-03	0.00E+00	0.00E+00		
August-2018	2.08E+02	5.05E-01	0.00E+00	0.00E+00	3.76E-02	9.13E-05	4.23E+00	1.03E-02	0.00E+00	0.00E+00		
September-2018	1.23E+02	4.64E-01	0.00E+00	0.00E+00	2.22E-02	8.37E-05	2.49E+00	9.42E-03	0.00E+00	0.00E+00		
October-2018	1.66E+02	4.76E-01	0.00E+00	0.00E+00	2.99E-02	8.59E-05	3.36E+00	9.67E-03	0.00E+00	0.00E+00		
November-2018	4.73E+01	4.79E-01	0.00E+00	0.00E+00	8.55E-03	8.66E-05	9.62E-01	9.74E-03	0.00E+00	0.00E+00		
December-2018	0.00E+00	4.79E-01	0.00E+00	0.00E+00	0.00E+00	8.66E-05	0.00E+00	9.74E-03	0.00E+00	0.00E+00		
January-2019	0.00E+00	4.79E-01	0.00E+00	0.00E+00	0.00E+00	8.66E-05	0.00E+00	9.74E-03	0.00E+00	0.00E+00		
February-2019	0.00E+00	4.79E-01	0.00E+00	0.00E+00	0.00E+00	8.66E-05	0.00E+00	9.74E-03	0.00E+00	0.00E+00		
March-2019	0.00E+00	4.79E-01	0.00E+00	0.00E+00	0.00E+00	8.66E-05	0.00E+00	9.74E-03	0.00E+00	0.00E+00		
April-2019	4.09E+01	4.99E-01	0.00E+00	0.00E+00	7.39E-03	9.01E-05	8.31E-01	1.01E-02	0.00E+00	0.00E+00		
May-2019	8.15E+01	4.84E-01	0.00E+00	0.00E+00	1.47E-02	8.74E-05	1.66E+00	9.83E-03	0.00E+00	0.00E+00		
June-2019	2.29E+02	5.18E-01	0.00E+00	0.00E+00	4.13E-02	9.37E-05	4.65E+00	1.05E-02	0.00E+00	0.00E+00		
July-2019	1.32E+02	5.13E-01	0.00E+00	0.00E+00	2.38E-02	9.27E-05	2.68E+00	1.04E-02	0.00E+00	0.00E+00		
August-2019	-	-	-	-	-	-	-	-	-	-		
September-2019		-	-	-	-		-	-	-	-		
October-2019	-	-	-	-	-	-	-	-	-	-		
November-2019	-	-		-			-	-	-			
December-2019	-	-			-	-	-		-	-		

# laterials Co. - Globe Construction Company 2018 - 2019

	on Calculat					
	CELLS EXCE	ED PERMIT	LIMITS			
	Mang	anese	H	CL	Aggrega	ite HAPs
Month	(Lbs/Month)	(tons/12- Month Rolling)	(Lbs/Month)	(tons/12- Month Rolling)	(Lbs/Month)	(tons/12- Month Rolling)
Permit Condition	1.26, 4.1a	1.26, 4.1a	1.26, 4.1a	1.26, 4.1a		4.1b
PERMITS LIMITS ¹	na	8.9	na	8.9	na	22.4
January-2018	0	0.00107803	0	0	0	
February-2018	0	0.00107803	0	0	0	0.59388017
March-2018	0	0.00107803	0	0	0	0.59388017
April-2018	0.006006		0	0	3.3086664	0.57343855
May-2018	0.2754829		0	0	151.761741	0.57373124
June-2018	0.3961265		0	0	218.223517	0.63881228
July-2018	3.53E-01	1.20E-03	0.00E+00	0.00E+00	1.95E+02	6.63E-01
August-2018	5.17E-01	1.26E-03	0.00E+00	0.00E+00	2.85E+02	6.91E-01
September-2018	3.05E-01	1.15E-03	0.00E+00	0.00E+00	1.68E+02	6.34E-01
October-2018	4.11E-01	1.18E-03	0.00E+00	0.00E+00	2.26E+02	6.51E-01
November-2018	1.18E-01	1.19E-03	0.00E+00	0.00E+00	6.48E+01	6.56E-01
December-2018	0.00E+00	1.19E-03	0.00E+00	0.00E+00	0.00E+00	6.56E-01
January-2019	0.00E+00	1.19E-03	0.00E+00	0.00E+00	0.00E+00	
February-2019	0.00E+00	1.19E-03	0.00E+00	0.00E+00	0.00E+00	6.56E-01
March-2019	0.00E+00	1.19E-03	0.00E+00	0.00E+00	0.00E+00	6.56E-01
April-2019	1.02E-01	1.24E-03	0.00E+00	0.00E+00	5.60E+01	6.82E-01
May-2019	2.02E-01	1.20E-03	0.00E+00	0.00E+00	1.11E+02	6.62E-01
June-2019	5.68E-01	1.29E-03	0.00E+00	0.00E+00	3.13E+02	7.09E-01
July-2019	3.27E-01	1.27E-03		0.00E+00	1.80E+02	7.02E-01
August-2019	-	-	-	-	-	-
September-2019	-	-	-	-	-	-
October-2019	-		-	-		-
November-2019	-	-	-	-	-	-
December-2019	-	-	-	-	-	-

	Proper Burner Operation															
			۲	he permittee shall re	cord a data u A	et for each of t dataset shall c	the following o ousist of at lea	ccurrences: u	pon startup o	paving seaso	n, upoo malfu	inction of drys no period of 30	er or hurner, and minutes or longer	after ever	y 500 hours of op	cratien
			Product	ion Data				CO Re	adings				C	O AVERA	GE	Notes
DATE	Duration (30min minimum)	Reason for Monitoring ¹	Rate Range (tons/hr)	Mix Information	CO Reading 1 (ppm)	CO Reading 2 (ppm)	CO Reading 3 (ppm)	CO Reading 4 (ppm)	CO Reading 5 (ppm)	CO Reading 6 (ppm)	CO Reading 7 (ppm)	CO Reading 8 (ppm)	Average of Readings (ppm)	Action Level (ppm)	CO Average Above Action Level (Y/N)	
5/5/2007	7:00 AM	STARTUP	330	13-ATOP	275	290	290	230	199	185	190	190	231	500	NO	
8/29/2007	12:00P	A/500 HOURS	390	4-E-10	305	320	305	290	255	233	245	260	277	500	NO	
4/28/2008	6:00 AM	STARTUP	300	36A-TOP	462	389	366	322	275	279	264	279	330	500	NO	
7/17/2008	9:50AM	JUST 'CAUSE	366	36A-TOP	228								228	500	NO	
7/21/2008	5:46AM	JUST 'CAUSE	370	13A	245								245	500	NO	
8/18/2008	6:00AM	500hours	350	36A-TOP	176	47	73	56	63	64	61	57	75	500	NO	
5/10/2009	8:00am	STARTUP	300	36A-TOP	175	150	155	165	145	180	160	170	163	500	NO	
9/10/2009	11:00p	500hrs	300	ggsp	163	159	198	155	149	156	177	167	166	500	NO	
5/18/2010	9:00a	STARTUP	345	13atst/13a/36a	144	170	155	157	159	116	118	240	157	500	NO	
10/4/2010	9:15a	500hrs	345	13at	90	120	100	110	85	95	100	110	101	500	NÖ	
5/9/2011	8:15a	STARTUP	335	36A-TOP	180	165	175	168	155	160	155	157	164	500	NO	
7/5/2011	7:25a	JUST 'CAUSE	340	13at	102	98	105						102	500	NO	
9/13/2011	1:00a	500hrs	275	5 e 30	103	97	125	133	114	99	100	108	110	500	NO	
4/30/2012	7:45a	STARTUP	280	13a base	111	106	100	99	97	98	102	104	102	500	NO	
5/23/2012	9:30a	for giggles	370	13at poly	64	70	70						68	500	NO	
10/16/2012	9:00a	JUST 'CAUSE	320	13a lev	100	90	88	89	93				92	500	NO	
5/6/2013	8:00am	STARTUP	300	36A-TOP	150	145	156	143	148	145	140	148	147	500	NO	
7/1/2013	8:00am	JUST 'CAUSE	330	13a st	85	80	83	75					81	500	NO	
9/9/2013	7:30a	500hrs	320	5 e 3	100	95	98	105	97	96	102	101	99	500	NO	
5/6/2014		STARTUP	345	13a top	159	61	85	70	65	72	77	75	83	500	NO	
10/10/2014		cause	335	36A-TOP	100								100	500	NO	
10/10/2014		cause	345	4 e 1	72								72	500	NO	
10/11/2014		compliance proof	335	4 e 1	53	66	62	63	56	70	86	54	64	500	NO	
4/29/2015	7:30a	STARTUP	350	4 e 10	75	77	80	76	80	77	75	80	78	500	NO	
6/30/2015	11:30a	checking things	355	5 e 1	115	113	106	109	91	100	97	81	102	500	NO	
11/3/2015	9:00a	compliance proof	360	4 e 3	85	87	90	86	84	86	87	85	86	500	NO	
5/6/2016	9:15a	STARTUP	350	lvsp	78	79	83	71	79	68	66	70	74	500	NO	
8/8/2016	8:15a	500 hr.	310	lvsp	143	134	188	148	137	161	159	190	158	500	NO	
4/17/2017	9:00p	STARTUP	325	4 e 3	90	85	88	87	83	84	86	88	86	500	NO	
8/21/2017	7:30a	500 hr.	300	13a	82	83	85	79	81	84	83	82	82	500	NO	
5/1/2018	7:30a	STARTUP	310	lvsp	156	175	160	164	166	154	195	176	168	500	NO	

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	and the second	Plant and Baghouse Maintenance Activities	Baghouse An	nual Inspection I	tems: place "x" if insp	ected & briefly	- All address of the state	Plant An	<u>nual inspec</u>	tion Items: place "x	" if inspecte	d briefly describ
DATE	TIME	Description of Activities/Findings	Baghouse blacklight and inspection	Ductwork (inspected for thickness)	Blow pipes, Diaphragm valves (are they working, good connections)	# Bags replaced and location, check cages	Cold feed bins (seals and belts rollers)	Belt lines (belts and rollers)	Dryer (shell, seals, flights)	Bucket elevator (chain, buckets, bearings, seals)	Chutes (liners, seals)	Screen (door seals, fugitive ductwork)
/21/2008-4/23/2008	7AM-5PM	changed all (960) bags. Conditioned all bags. Old bags worn										
7/16/2008	5:00A	BLACK LIGHT HOUSE. FOUND ONE BAG THAT HAD NOT BEEN SEALED PROPERLY AND REPLACED IT WITH A NEW ONE										
4/8/2009		General pre season inspection and black light check. Everything looked good.									-	
4/7/2010		General pre season inspection and black light check. Everything looked good.										
4/28/2011		General pre season inspection and black light check. Everything looked good.										
3/12/2012		Changed Elevator chain and buckets, rebuilt discharge paddes in ordin and cinpped and cleaned build up on flights and burner protector teepee, did some feeder bin beit										
3-18-2013/-4-26-13		Repriaced must ing ing its on the must ing busic narge who of the origin. The we need shan, the bearings, and pulley on slinger. New slat conveyor chain, paddles and sprockets on #6										
4/1/2613		Gathering conveyor service										
5/5/2013		Recycle gathering conveyor service with an electrician.										
7/15/2013		Repair bad bearing on number 4 slat conveyor.										
7/29/2013		Repair on number 4 slat conveyor bearing again and number 6 slat conveyor drive chain.										
9/21/2013		Replace elevator head shaft segments.										
10/17/2013		Replaced belt scrapers on two agg conveyors and some bad brushes in one of the feeder bin motor. Repraced tain strain spruckets on elevator roor snart, unpped and cleaned our dryer; part										
-17-14 thru 4-28-14		new bolts in flights that were loose and worn, replaced all the bags in baghouse, put										
4/29/2014		Black light the baghouse to make sure we had all the bags seated good and tight, everything looks good.										
8/1/2014		normal wear areas and no major build ups where we have had passed issues.										
10/10/2014		went up top of silo's and resealed the leaking areas of the elevator doors and slat conveyor doors. Frant rhamehance uone rms spring, repraced loose or worn our ports on drain mights										
3-2-15-4-27-15	7:00a-5:00p	Frainf frameriance done this spring, represent roose or worn our outs on orbit in and chipped and cleaned out drum areas that get build up in it. Put some new wear Fut new urgin; batchies and physicol or as inansel conveyor; "Put New chain" and "										
3-2-15-4-27-15	7:00a-5:00p	paddles on #4 transfer. Replaced two older colder do bin belts with new chain and Declaration and the second seco							1			
4/27/2015	6:30a	Baghouse inspection and black light test.										
4/28/2015	9:00a	Replace bad cold feed motor with new rebuilt motor.										
5/13/2015	8:15a	Cleaned out the Recyle chute after it became plugged up with material.										
5/19/2015	1:30p	Adjusted the trunnion drives on the drum mixer.										
5/27/2015	12:00p	Balanced the primary blower fan on the burner blower. Greased the slat conveyor bearings and elevator head shaft bearings.										
6/5/2015	8:00a	Grease plant up stairs and everything down here.										
6/29/2015	9:00a	Grease pland up stairs and down stairs and did some trunion adjustment to get drum to move up hill a little bit.										
6/30/2015	11:15a	Did some burner adjustment and tunning.										
7/1/2015	9:30a	replace rap bin #2 feeder belt										
7/13/2015	6:00a	Replace bad bearing on slinger headshaft. Replace four bolts that were worn out on a couple flights										
7/15/2015	9:30a	Replaced bad gear box on agg screen charging conveyor.										
8/14/2015	12:30p	Remove a chunk of iron from # 2 RAP feeder.										
8/19/2015	3:00p	put support piece back in # 2 RAP bin										
3-1-16/4-29-16	7:00a-5:00p	worn out bolts and nuts, put in some shaggy-dog chains to help keep drum from										

Michig	an Paving	&	Materials

		Fill in the Date, a	and write a brie	of description	of the Plant and Ba	ighouse Mainte	nance Activitie	S. JSpring Mainte	anance Item	a		All of the second s
		Plant and Baghouse Maintenance Activities	Baghouse An	nual Inspection I	tems: place "x" if insp	ected & briefly	Annual FALL			a tion Items: place ">	" if inspecte	d briefly describe
DATE	TIME	Description of Activities/Findings	Baghouse blacklight and inspection	Ductwork (inspected for thickness)	Blow pipes, Diaphragm valves (are they working, good connections)	# Bags replaced and location, check cages	Cold feed bins (seals and belts rollers)	Belt lines (belts and rollers)	Dryer (shell, seals, flights)	Bucket elevator (chain, buckets, bearings, seals)	Chutes (liners, seals)	Screen (door seals, fugitive ductwork)
5/5/2016	8:00a	Black light test on baghouse. Things look good.										
5/25/2016	12:00p	Replace bad bearing on tail shaft of elevator										
6/27/2016	7:00am	Went into drum/dryer and just looked things over to see how the changes we made this spring were working out. Checked out head shaft bearings on slinger										
5/29/2016	8:00a	Replaced broken head shaft and bad bearing on #2 transfer/slat conveyor										
6/29/2016	1:00p	Replace bad bearing on conveyor take up pulley.										
2-2017-4-15-17	6:00a-4:00p	clean out and repairs made, elevator footshaft and sprockets replaced, elevator head										
6/19/2017	8:30am	replaced some bad return idlers on the gathering conveyor in tunnel and screen charging conveyor										
6/21/2017	1:30p	Grease up top of plant and adjusted up slat converyors										
7/7/2017	12:00p	cleaned off the recycle screen cloth and chipped off the build up down in the hopper area below screens										
7/8/2017	8:00a	put the drum suspension bar shimms back in place and tac welded them better than original factory did										
7/12/2017	9:00a	general drum/dryer inspection. Chip out build up on inlet end.										
10/1/2017	8:00a	replaced head shaft segments on the elevator										
10/6/2017	6:00a	inspect slinger bearings										
4/25/2018	10:30a	Replaced oil seals in both screen decks. Replace chain and buckets on elevator and	×	×	×	none	6 new	x	x	new	x	new seals
5/15/2018	10:00a	new bearing and air seal on dust auger										new seals
6/19/2018	7:15a	new bearing on slinger conveyor										
8/27/2018	1:30p	new drive belt on agg scale belt and a new hinge pin in slinger belt						×				
3/4/2019	7:00a	Spring time plant maintenance: conveyor bens fixed, stat conveyor repairs, drummixer clean out and repairs made, elevator footshaft and sprockets replaced, elevator head	4/16/2019		good	no bags/cages good	ok	some new laces	of liners and	foot shaft sprockets		
									T			

### **Plant Maintenance Procedures**

A. Identification of Supervisory and Maintenance Personnel

Supervisory and Maintenance Personnel	Responsibilities
Plant Manager / Operator: Bruce Johnson	Operations Manager, in charge of all plant maintenance and repairs.
Loader Operator: Larry Gray	Stock Pile Management, Fugitive Dust Control, Daily Visual Inspections

B. Description of Inspected Items

A daily walk around inspection will be done each morning while the plant is warming up. After startup, observations will be made of the baghouse stack for opacity and of the chutes, screw augers, and housings for any leaks. These observations should be carried out continuously during operations by the plant operator and by the loader operator as he feeds the plant. Items inspected-observed are: Roadways (fugitive dust) Cold feed bins (falling aggregate) Aggregate feed belts (falling aggregate) Dryer (seals for dust escaping) Bucket elevator (seals for dust escaping) Aggregate chutes (seals for dust escaping) Screen (door seals for dust escaping) Weigh hopper (seals for dust escaping) Mixer (seals for dust escaping) Baghouse (stack opacity) Baghouse screws (shaft and door seals for dust escaping) C. Frequency of Inspections Daily walk around inspection will be done each morning. Annual inspection will be done during the winter shutdown prior to Spring startup The following items will be inspected (and repairs done if needed): Cold feed bins (seals and belts rollers) Belt lines (belts and rollers) Dryer (shell, seals, flights) Bucket elevator (chain, buckets, bearings, seals) Chutes (liners, seals) Screen (door seals, fugitive ductwork) Weigh hopper (seals, calibration) Mixer (seals, wear plate) The baghouse will get a thorough inspection from the front inlet to the rear exhaust fan. This inspection will be done every spring before the paving season starts. Items to be inspected are: Ductwork (inspected for thickness, will it last for the season) Blow pipes, Diaphragm valves (are they working, good connections) Bags and cages (condition of bags, age, number replaced during last season) D. Recordkeeping A record of all maintenance activities shall be recorded on the Air Recordkeeping Excel Spreadsheet, labeled Maintenance. Plant Repair Examples:

- 1. Burner: Replace R.U.O. Nozzle & Gasket. Replace Swirl Plate Assembly.
- 2. Dryer/Drum: Drum Shell, Flights, Suspension Bar Shims, Air Seals, Trunion Drives.
- 3. Silos/Bucket Elevator: Bucket Elevator Chain, Sprocket Segments, Transfer Door Seals.
- 4. Baghouse: Bags, Cages, Pulse Diaphragms & Solenoids, Door Seals.
- 5. Cold Feed: Conveyor Belts, Gearbox, Liners.