

Rachel -
Dina -
Marla

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : Michigan Paving & Materials Co. Kalamazoo Asphalt	SRN : B2992
Location : 2000 GLENDENNING	District : Kalamazoo
	County : KALAMAZOO
City : KALAMAZOO State: MI Zip Code : 49001	Compliance Status : Compliance
Source Class : SM OPT OUT	Staff : Monica Brothers
FCE Begin Date : 07/23/2018	FCE Completion Date : 7/23/2019
Comments : Seemed to be in compliance at the time of inspection.	

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: Monica Brothers Date: 8/19/19 Supervisor: Ru 8/20/19

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

B299249650

FACILITY: Michigan Paving & Materials Co. Kalamazoo Asphalt		SRN / ID: B2992
LOCATION: 2000 GLENDENNING, KALAMAZOO		DISTRICT: Kalamazoo
CITY: KALAMAZOO		COUNTY: KALAMAZOO
CONTACT: Jeff Reed , Assistant HMA Manager		ACTIVITY DATE: 07/23/2019
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced scheduled 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:

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 2-stage 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 

DATE 8/19/19

SUPERVISOR RIL 8/20/19

Michigan Paving and Materials Co. Mix Change Records

Date	Time	Mix Type	Tons
4/15/2019	7:45a	base	1266
4/16/2019	8:55a	13a	1090
4/17/2019	6:30a	4 e 1	1415
4/21/2019	7:00a	com top	1604
4/22/2019	4:30a	4 e 1	230
	7:15a	base	165
	7:50a	4 e 1	0:00
	10:35a	5 e 1	795
	1:15p	4 e 1	205
4/23/2019	5:30a	lvsp	299
	6:30a	13a top	355
	7:45a	base	169
	8:25a	5 e 1	435
	9:47a	base	253
	10:40a	13a top	279
	3:00p	com top	201
4/24/2019	5:45a	com top	395

Michigan Paving and Materials Co. - Globe Construction Company
DAILY FUEL LOG FOR 2019

RÜO SPECIFICATIONS

DO NOT ACCEPT RÜO 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 RÜO 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.

DATE	Fuel Type Enter: 1. Natural Gas 2. RÜO 3. Distillate Oil 4. Blended Fuel Oil 5. Propane 6. Residual Oil	METER READINGS ¹		OIL SHIPMENTS RECEIVED						CALCULATED RÜO TANK AVERAGES					DAILY USAGES			
		Oil Tank Volume (Gals)	NG Meter Reading (MCF)	Shipment Received (Gals)	SULFUR %Wgt	Halogen Content (ppm)	Specific Gravity	Flash point (°F)	HHV (BTU/lb)	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	1.24b			1.24b	1.24b	1.24a			
Previous Year Ending ²		353	84,663		0.22	0.00	0.9	230.0	19260.00	0.22	0.87		100	230	19206			
1/1/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
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							0.22	0.87	7.26	100	230	19206	0	0	0
1/4/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/5/2019	1	353	84,663							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
1/8/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/9/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/10/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/11/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/12/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/13/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/14/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/15/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/16/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/17/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/18/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/19/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/20/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/21/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/22/2019	1	353	84,663							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							0.22	0.87	7.26	100	230	19206	0	0	0
1/25/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/26/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/27/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/28/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/29/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/30/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0
1/31/2019	1	353	84,663							0.22	0.87	7.26	100	230	19206	0	0	0

Michigan Paving and Materials Co. - Globe Construction Company

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.

DATE	Fuel Type Enter: 1. Natural Gas 2. RUO 3. Distillate Oil 4. Blended Fuel Oil 5. Propane 6. Residual Oil	METER READINGS ¹		OIL SHIPMENTS RECEIVED						CALCULATED RUO TANK AVERAGES						DAILY USAGES		
		Oil Tank Volume (Gals)	NG Meter Reading (MCF)	Shipment Received (Gals)	SULFUR %Wgt	Halogen Content (ppm)	Specific Gravity	Flash point (°F)	HHV (BTU/lb)	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)
4/1/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/2/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/3/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/4/2019		353	84,683						0.22	0.87	7.26	100	230	19206	0	0	0	
4/5/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/6/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/7/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/8/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/9/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/10/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/11/2019		353	84,663						0.22	0.87	7.26	100	230	19206	0	0	0	
4/12/2019	1	353	85,103						0.22	0.87	7.26	100	230	19206	0	0	440	
4/13/2019	1	353	85,103						0.22	0.87	7.26	100	230	19206	0	0	0	
4/14/2019	1	353	85,103						0.22	0.87	7.26	100	230	19206	0	0	0	
4/15/2019	1	353	85,604						0.22	0.87	7.26	100	230	19206	0	0	501	
4/16/2019	1	353	85,970						0.22	0.87	7.26	100	230	19206	0	0	366	
4/17/2019	1	353	86,400						0.22	0.87	7.26	100	230	19206	0	0	430	
4/18/2019	1	353	86,400						0.22	0.87	7.26	100	230	19206	0	0	0	
4/19/2019	1	353	86,400						0.22	0.87	7.26	100	230	19206	0	0	0	
4/20/2019	1	353	86,400						0.22	0.87	7.26	100	230	19206	0	0	0	
4/21/2019	1	353	87,033						0.22	0.87	7.26	100	230	19206	0	0	633	
4/22/2019	1	353	87,723						0.22	0.87	7.26	100	230	19206	0	0	690	
4/23/2019	1	353	88,332						0.22	0.87	7.26	100	230	19206	0	0	609	
4/24/2019	1	353	88,645						0.22	0.87	7.26	100	230	19206	0	0	313	
4/25/2019	1	353	89,052						0.22	0.87	7.26	100	230	19206	0	0	407	
4/26/2019	1	353	89,294						0.22	0.87	7.26	100	230	19206	0	0	242	
4/27/2019	1	353	89,294						0.22	0.87	7.26	100	230	19206	0	0	0	
4/28/2019	1	353	89,294						0.22	0.87	7.26	100	230	19206	0	0	0	
4/29/2019	1	353	89,294						0.22	0.87	7.26	100	230	19206	0	0	0	
4/30/2019	1	353	89,596						0.22	0.87	7.26	100	230	19206	0	0	302	

**Michigan Paving and Materials Co. - Globe Construction Company
DAILY FUEL LOG FOR 2019**

RUO SPECIFICATIONS

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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.

DATE	Fuel Type Enter: 1. Natural Gas 2. RUO 3. Distillate Oil 4. Blended Fuel Oil 5. Propane 6. Residual Oil	METER READINGS ¹		OIL SHIPMENTS RECEIVED						CALCULATED RUO TANK AVERAGES					DAILY USAGES		
		Oil Tank Volume (Gals)	NG Meter Reading (MCF)	Shipment Received (Gals)	SULFUR %Wgt	Halogen Content (ppm)	Specific Gravity	Flash point (°F)	HHV (BTU/lb)	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)
5/1/2019	1	353	89,682						0.22	0.87	7.26	100	230	19206	0	0	86
5/2/2019	1	353	80,145						0.22	0.87	7.26	100	230	19206	0	0	463
5/3/2019	1	353	90,367						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	92,636						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	94,667						0.22	0.87	7.26	100	230	19206	0	0	367
5/19/2019	1	353	94,667						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						0.22	0.87	7.26	100	230	19206	0	0	530
5/22/2019	1	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						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						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						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 & Materials Co. - Globe Construction Company
Monthly Summaries 2018 - 2019**

*YELLOW HIGHLIGHTED CELLS EXCEED PERMIT LIMITS

	HOT MIX ASPHALT PRODUCTION				RAW MATERIALS	
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 Cement Used (Tons)
<i>Permit Condition</i>	<i>1.29</i>	<i>1.6, 1.29</i>				
PERMITS LIMITS¹	na	895,000	na	na	na	na
January-2018	0	280008	0	0	0	0
February-2018	0	280008	0	0	0	0
March-2018	0	280008	0	0	0	0
April-2018	780	270370	0	780	511.5	29.8
May-2018	35777	270508	0	35777	23653.99	1531.828
June-2018	51445	301193	0	51445	35634.61	2113.325
July-2018	45894	312635	3349	42545	34613.34	2152.214
August-2018	67096	326033	6572	60524	52182.78	3199.198
September-2018	39584	299048	9929	29655	30257.5	1885.437
October-2018	53388	306856	711	52677	37844.9	2304.767
November-2018	15271	309235	0	15271	10566	622
December-2018	0	309235	0	0	0	0
January-2019	0	309235	0	0	0	0
February-2019	0	309235	0	0	0	0
March-2019	0	309235	0	0	0	0
April-2019	13196	321651	0	13196	8908.3	519.764
May-2019	26277	312151	974	25303	20146.2	1190.988
June-2019	73763	334469	32164	41599	63423.66	3884.974
July-2019	42482	331057	1302	41180	32702.6	1947.868
August-2019	-	-	-	-	-	-
September-2019	-	-	-	-	-	-
October-2019	-	-	-	-	-	-
November-2019	-	-	-	-	-	-
December-2019	-	-	-	-	-	-
					125180.76	7543.594

		RAP
Month	Total RAP Aggregate Used Per Month (Tons)	Average RAP Content (%)
<i>Permit Condition</i>		
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	25.7083343
July-2019	9780.09	23.7496115
August-2019	-	-
September-2019	-	-
October-2019	-	-
November-2019	-	-
December-2019	-	-

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

FUEL INFORMATION		MONTHLY RUO/FUEL OIL AVERAGES				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
<i>Permit Condition</i>							
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

Month	PM		CO		SO2		NOx		Lead	
	(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)
<i>Permit Condition</i>	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	174.913	0.5120281	1337.57	3.915509	0.0318959	9.337E-05
July-2018	1.51E+03	5.16E+00	5.97E+03	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	-	-	-	-	-	-	-	-	-	-
October-2019	-	-	-	-	-	-	-	-	-	-
November-2019	-	-	-	-	-	-	-	-	-	-
December-2019	-	-	-	-	-	-	-	-	-	-

Michigan Paving & Materials Co. - Globe Construction Compar
Monthly Summaries 2018 - 2019
Monthly TAC Emission Calculations

¹YELLOW HIGHLIGHTED CELLS EXCEED PERMIT LIMITS

Month	Benzene		Toluene		Ethylbenzene		Xylene		Naphthalene	
	(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)
<i>Permit Condition</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>
PERMITS LIMITS ¹	na	8.9	na	8.9	na	8.9	na	8.9	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	3.56E+00	1.35E-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	1.38E-02
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	1.39E-02
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	1.39E-02
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	1.39E-02
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	1.39E-02
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	0.00E+00	1.39E-02
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	1.19E+00	1.45E-02
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	2.36E+00	1.40E-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	6.64E+00	1.51E-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	-	-	-	-	-	-	-	-	-	-

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**Michigan Paving & M
Monthly Summaries
Monthly TAC Emissi**

¹YELLOW HIGHLIGHTED

Month	Formaldehyde		Acrolein		Arsenic		Nickel		H ₂ SO ₄	
	(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)
<i>Permit Condition</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>
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	0.4340124	0	0	0	7.8402E-05	0	0.00882025	0	0
March-2018	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	-	-	-	-	-	-	-	-	-	-

**Materials Co. - Globe Construction Company
2018 - 2019**

Concentration Calculations

CELLS EXCEED PERMIT LIMITS

Month	Manganese		HCL		Aggregate HAPs	
	(Lbs/Month)	(tons/12-Month Rolling)	(Lbs/Month)	(tons/12-Month Rolling)	(Lbs/Month)	(tons/12-Month Rolling)
<i>Permit Condition</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>	<i>1.26, 4.1a</i>		<i>4.1b</i>
PERMITS LIMITS¹	na	8.9	na	8.9	na	22.4
January-2018	0	0.00107803	0	0	0	0.59388017
February-2018	0	0.00107803	0	0	0	0.59388017
March-2018	0	0.00107803	0	0	0	0.59388017
April-2018	0.006006	0.00104092	0	0	3.3086664	0.57343855
May-2018	0.2754829	0.00104146	0	0	151.761741	0.57373124
June-2018	0.3961265	0.00115959	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	6.56E-01
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	0.00E+00	1.80E+02	7.02E-01
August-2019	-	-	-	-	-	-
September-2019	-	-	-	-	-	-
October-2019	-	-	-	-	-	-
November-2019	-	-	-	-	-	-
December-2019	-	-	-	-	-	-

**Michigan Paving & Materials
CO Handheld Emissions Monitoring**

Proper Burner Operation

*The permittee shall record a data set for each of the following occurrences: upon startup of paving season, upon malfunction of dryer or burner, and after every 500 hours of operation.
A dataset shall consist of at least 8 separate CO readings and shall be taken over a total time period of 30 minutes or longer.

DATE	Duration (30min minimum)	Reason for Monitoring ¹	Production Data		CO Readings								CO AVERAGE			Notes
			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	13ats/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	NO	
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	

Michigan Paving & Materials

Fill in the Date, and write a brief description of the Plant and Baghouse Maintenance Activities.

DATE	TIME	Plant and Baghouse Maintenance Activities Description of Activities/Findings	Annual FALL/Spring Maintenance Items										
			Baghouse Annual Inspection Items: place "x" if inspected & briefly			Plant Annual Inspection Items: place "x" if inspected briefly describe							
			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)	
4/21/2008-4/23/2008	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 paddles in drum and chipped and cleaned build up on flights and burner protector teepee, did some feeder bin belt											
3-18-2013/4-26-13		Replaced mixing flights on the mixing/discharge end of the drum. New read slat, bearings, and pulley on slinger. New slat conveyor chain, paddles and sprockets on #6											
4/1/2013		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.											
3-17-14 thru 4-28-14		replaced two shaft sprockets on elevator foot shaft, chipped and cleaned out dryer, put 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		went in to do an inspection of baghouse and drum. Drum looks really good with an 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.											
3-2-15-4-27-15	7:00a-5:00p	Plant maintenance done this spring. replaced loose or worn out bolts on drum flights and chipped and cleaned out drum areas that get build up in it. Put some new wear											
3-2-15-4-27-15	7:00a-5:00p	Put new chain, paddles and plywood on #3 transfer conveyor. Put new chain and paddles on #4 transfer. Replaced two older cold feed bin belts with new ones.											
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 Recycle 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 plant 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 tuning.											
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	replaced one row of drum flights, installed new wear lips on other flights and replaced worn out bolts and nuts, put in some shaggy-dog chains to help keep drum from											

Plant Maintenance Procedures

A. Identification of Supervisory and Maintenance Personnel

<i>Supervisory and Maintenance Personnel</i>	<i>Responsibilities</i>
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.