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

B582325625

FACILITY: AJAX MATERIALS CORP		SRN / ID: B5823
LOCATION: 7392 KENSINGTON RD, BRIGHTON		DISTRICT: Lansing
CITY: BRIGHTON		COUNTY: LIVINGSTON
CONTACT: Mike Herzfeld , Plant Operator		ACTIVITY DATE: 06/25/2014
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Partical Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE): 1.) scheduled inspection; and 2.) review of facility records and operational logs.		
RESOLVED COMPLAINTS:		

On 6/25/2014, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of Ajax Materials Plant 6, and reviewed their records and operational logs. These were Partial Compliance Evaluation (PCE) activities, conducted as part of a Full Compliance Evaluation (FCE). Facilities with a synthetic minor permit, such as Plant 6, are required to periodically undergo a FCE.

Facility environmental contacts:

Mike Herzfeld, Plant Operator: 248-244-3448; mherzfeld@ajaxpaving.com

Kathleen Anderson: Environmental Consultant, Axis Environmental Consulting Corp.; 810-845-3925; kanderson@ajaxpaving.com

Facility description:

This facility is a Hot Mix Asphalt (HMA) plant. It consists of a cold aggregate handling system for both virgin aggregate and Recycled Asphalt Pavement (RAP), a parallel flow drum dryer, a baghouse, and product storage silos with a truck loadout area beneath them. The drum dryer is an older style of dryer, compared with newer counterflow designs. The truck loadout area and the silos are uncontrolled. The facility has a paved yard area, and paved roadways around the HMA plant. There are also aggregate storage piles onsite.

Emission units:

Emission Unit ID	Emission unit description	Permit or exemption	Operating status
EUHMAPLANT	HMA facility including aggregate conveyors, 400 ton per hour parallel flow drum mixer, and baghouse, with 70,000 ACFM	PTI No. 38-90C	Compliance
EUYARD	Fugitive dust sources including plant roadways, plant yard, material storage piles, and material handling operations (including cold feed aggregate bins).	PTI No. 38-90C	Compliance
EUACTANKS	Liquid asphalt cement (AC) tanks with vapor condensation and recovery system.	PTI No. 38-90C	Compliance
EUSILOS	6 HMA paving material product storage silos.	PTI No. 38-90C	Compliance
Flyash silo	Silo for storing flyash, as an ingredient of the paving mixture.	PTI No. 38-90C	Not in use
FGFACILITY	All process equipment at the stationary source, including equipment covered by other permits (if any), grandfathered equipment, and exempt equipment.	PTI No. 38-90C	NA

Regulatory overview:

This facility has a synthetic minor permit, Permit to Install (PTI) No. 38-90C, which limits the facilitiy's potential to emit for Nitrogen Oxides (NOx) and particulate matter, to keep it from becoming a major source. The permit allows use of up to 35% RAP in the paving mixture, based on a monthly average. The plant is subject to 40 CFR Part 60, Subpart I, the New Source Performance Standards (NSPS) for HMA plants. The plant successfully passed its NSPS particulate and opacity testing, on 9/11/1990.

Fee status:

Because it is subject to an NSPS (Subpart I), the facility is classified as a Category II fee source. Each year, the company reports annual production and emissions through the Michigan Air Emission Reporting System (MAERS).

Arrival:

Weather conditions were densely foggy, and 66 degrees F, with winds 0-5 miles per hour (mph) out of the east northeast. I drove south on Kensington Road, and detected diesel exhaust from trucks. I drove past the entrance to the site, and checked for odors in the residential area on Silver Lake Road south of the plant, but could not detect any. I turned around, and drove to the plant, arriving at 7:15 AM. The plant was running, with a detached steam plume visible from the baghouse exhaust stack. I could not see any sign of particulate emissions or blue smoke, either before or after the steam plume. Winds were 0-5 mph out of the east. The unpaved roadways at the site looked to have been watered this morning.

Recent history:

In May, the AQD received a complaint from a citizen that during the 2013 operating season, they sometimes smelled asphalt odors at their house, a couple thousand feet to the south. AQD visited the plant on 5/21/2014, to check for odors, and the plant was not running, at that time. AQD has not received any further odor complaints, so far this year.

PCE activity number 1; inspection:

I met with Mr. Mike Herzfeld, plant operator. The month of June has been unusually wet, this year. Other than that, business has been consistent with last year.

I collected operating data as follows, at approximately 7:30 AM:

Asphalt mix type: 13 A

Liquid AC grade: PG 52-28

Total AC content of virgin AC and RAP: 5.91%

Virgin AC: 10.8 TPH; virgin AC temperature: 320 degrees F

Production rate: 281 tons per hour (TPH)

Mix temperature: 308 degrees F

Virgin aggregate: 156 TPH; moisture content: 4.5%

RAP content: 111 TPH; % of total mix: 40%; RAP moisture content: 4.3%

20 AA aggregate: 49 TPH; % of total mix: 19.8%; moisture content 5.0%

3/8 x4 syl aggregate: 33 TPH; % of total mix: 13.6%; 3.7% moisture content

2 NS aggregate: 40 TPH; % of total mix: 14.5%; moisture content: 5.0%

Fuel for drum dryer: natural gas

Baghouse pressure drop: 3.2" water column (w.c.); baghouse temperature: 329 degrees F

Fan damper on dryer: 75.2%

At the time of the inspection, they were producing a mix with a 40% RAP content. The RAP limit in PTI No. 38-90C is 35%, averaged on a monthly basis. Mr. Herzfeld was very much aware of this limit, and explained that they monitor RAP, both at the site, and at their main/corporate office, to make sure they do not exceed it. They are at 36% so far, for the month of June, and they will manage their production to keep the average down to 35% or less, by the end of the month.

Some days they may produce as little as 300 tons of product, but an average production day for them is around 1,500 tons.

In the parallel mix drum, virgin aggregate enters the front of the drum, near the burner. The RAP enters the drum in the drum's midsection. This is to avoid scorching the RAP, Mr. Herzfeld explained, which could cause emissions of blue smoke.

I checked for signs of fugitive emissions. I saw no fugitive emissions from the drum dryer, burner end of the dryer, virgin aggregate feed or RAP feed, ductwork, or baghouse. There were minor emissions of what appeared to be steam from atop the product storage silos and hot elevator, and small amounts of steam from the truck loadout. I could not see signs of blue smoke. There were no fugitive dust emissions from the facility's paved roadways, which looked to have been swept fairly recently.

A "power sweeper" truck arrived not long after I had been onsite, and proceeded to spray water on the paved plant roadways, then sweep them with rotating sweeper brooms. The water sprays were located along the front bumper. The truck made 4 passes around the paved roadways, including the lane underneath the product storage silos. Mr. Herzfeld explained that the sweeper is run by a contractor who cleans their roadways every 2 weeks, or sooner, upon request.

PCE activity number 2; records and operational logs:

Mr. Herzfeld printed a copy for me of their Daily Road Maintenance log (attached for reference), from April 2014 through today's date. This details their various fugitive dust control activities at the site. The unpaved roadways and the plant yard itself were chlorided on 6/5.

Mr. Herzfeld also provided a copy of a monthly Production Report, for the month of May, along with a summary page showing what mix types were made on what days, and the total (attached).

According to the annual MAERS report for this facility, their 2013 production of paving material was 193,758 tons. This is below the 895,00 tons throughput allowed by PTI No. 38-90C.

At the start of each paving season, the facility is required to conduct CO readings by PTI No. 38-90C, Special Condition 1.9. The purpose of the requirement is to try to improve the efficiency of the burner. On 7/14/2014, a few weeks after the inspection, I e-mailed Mr. Herzfeld and Ms. Kathleen Anderson of Axis Environmental Consulting Corp., to ask for information on the CO readings from the start of the 2014 season. Ms. Anderson replied that same day, with a scanned copy of the CO readings (please see attached). The readings are summarized, below.

CO Reading number	Time on 4/30/2014	Co reading in parts per million (ppm)
1	7:24 AM	518
2	7:29 AM	523
3	7:35 AM	480
4	7:39 AM	470
5	7:43 AM	536
6	7:47 AM	518
7	7:52 AM	491
8	7:57 AM	485

The above readings were taken when the facility was running at 260 tons per hour while producing mix type 1100T, a 33% RAP containing product. The drum dryer was fueled by natural gas.

Odor evaluation:

After leaving the site, I checked for odors in a residential and commercial area, to the south. On Silver Lake Road, which turns westward just south of the plant, I noticed a barely detectable asphalt odor, corresponding to a level 1 on the 0 to 5 odor scale used by the AQD, at 8:27 AM. I was about 1,000 feet south of the plant. I continued on Silver Lake until it turned south again, and barely detected an odor, but could not determine if it was asphaltic in nature, or more like diesel exhaust from truck traffic. I turned around, and drove north. At the intersection of Silver Lake Road and Park Place, I noticed a barely detectable asphalt odor. I was about 1,000 feet south of the plant. From my location, I could see the steam plume from the plant. It was traveling in a mostly horizontal manner, rising only a very small amount. The weather was cool and foggy, with a wind 0-5 mph out of the east northeast. I did not find the odors to be severe enough to constitute a violation of Rule 901(b), which prohibits unreasonable interference with the comfortable enjoyment of life and property.

Conclusion:

I could not find any instances of noncompliance with PTI No. 38-90C, the Michigan Air Pollution Control Rules, or 40 CFR Part 60, Subpart I. The plant appeared to be well maintained. Mr. Herzfeld was very knowledgeable and professional.

NAME [signature] DATE 7/15/2014 SUPERVISOR [signature]