

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

B164626054

FACILITY: RIETH RILEY CONSTRUCTION CO., INC.		SRN / ID: B1646
LOCATION: 4150 S. CREYTS RD., LANSING		DISTRICT: Lansing
CITY: LANSING		COUNTY: EATON
CONTACT: Tom Harris , Area Manager		ACTIVITY DATE: 07/17/2014
STAFF: Brad Myott	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Perform scheduled inspection and determine compliance with PTI 97-03A.		
RESOLVED COMPLAINTS:		

On 7/17/2014, I conducted an unannounced inspection of Rieth Riley Construction on Creyts Road as the facility was scheduled to be inspected in FY14.

**Facility environmental contacts:**

Tom Harris, Area Manager; 517-721-0103; [Tharris@rieth-riley.com](mailto:Tharris@rieth-riley.com)

Hank Grifka, Plant Operator; 517-322-0332

**Facility description:**

This facility is a Hot Mix asphalt (HMA) plant, utilizing a counterflow drum dryer. Compared with older style parallel flow drums, counterflow drums keep the burner flame separate from the liquid asphalt cement (AC) and Recycled Asphalt Pavement (RAP), to prevent the formation of blue smoke and excessive odors in the drum. In the drum, virgin aggregate is heated, to drive out naturally occurring moisture. Then, in a separate part of the drum, the heated aggregate is mixed with liquid AC and RAP. Exhaust from the drum dryer is exhausted to the baghouse, to control particulate emissions. A drag slat conveyor carries the HMA product to insulated storage silos, which are controlled. The truck loadout is also controlled, by a tunnel enclosure with transparent side panels. The captured silo and truck loadout emissions are ducted to a coalescing filter system, which uses steel wool as the collection media.

**Regulatory overview:**

This facility is regulated by Permit to Install (PTI) No. 97-03A. This is a synthetic minor permit, which includes emission and production limits which restrict the plant's Potential to Emit. This keeps the facility from being classified as a major source, which would be required to have a Renewable Operating Permit. It was originally a portable asphalt plant, but it has been permanently located here for a number of years. The PTI restricts RAP content to a maximum of 50%. This plant is also subject to the federal New Source Performance Standards (NSPS) for HMA Plants, 40 CFR Part 60, Subpart I.

**Emission units:**

Emission Unit ID	Emission Unit Description (Process Equipment and Control Devices)	Permit to Install No.	Compliance Status
EU-001	Hot Mix Asphalt (HMA) facility, including aggregate conveyors, 400 tons per hour CMI counterflow triple drum mixer, capable of combusting natural gas, butane, propane, No. 2, No. 4, No. 5 and No. 6 fuel oil, and recycled used oil (RUO), controlled by a baghouse with a rated airflow capacity of 70,000 actual cubic feet per minute.	97-03A	C
EU-ACTANKS	Liquid AC storage tanks, with condensers.	97-03A	C
EU-SILOS	Four asphalt paving material storage silos, with top-of-silo control, and truck loadout control, with coalescing filter.	97-03A	C
EU-YARD	Fugitive dust sources associated with the HMA facility, consisting of all plant roadways, the plant yard, all material storage piles, and all material handling operations except cold feed aggregate bins.	97-03A	C

**Inspection:**

I drove south on Creyts Road, towards Rieth-Riley and the neighboring Lansing Asphalt Terminal Company (LATCo) site. I detected a slight odor of asphalt, which corresponds to a 1 on AQD's 0 to 5 odor scale. I was northeast of LATCo, at the time. Weather conditions were sunny, and 65 degrees F, with the wind at 8 miles per hour out of the west southwest.

I arrived at the Rieth-Riley site at approximately 8:30 AM, and the plant was running. I did not notice any fugitive emissions of dust or blue smoke. There were no visible emissions from the liquid AC tanks, drum dryer, nor from the truck loadout and silo control system and its coalescing filter. There were no visible emissions from the baghouse exhaust stack, but a steam plume was present. I met with Mr. Tom Harris, Area Manager and explained to him the reason for my visit. I also provided him with a copy of the DEQ Environmental Inspections Brochure.

Tom and I discussed current operations at the facility. Tom explained that they have been busy and are typically operating between 6 am and 6 pm each day. They were busy today with a large job for MDOT. The mix did not contain any RAP and they were scheduled to produce about 4500 tons for the day. We also discussed the use of crumb rubber in the asphalt process and I explained that DEQ was working on an approach to possibly require stack testing on future crumb rubber projects. Tom said that they didn't have any plans to use crumb rubber this year.

During the inspection, I collected plant operating data, as follows:

Time:	9:30 AM	9:45 AM	10:15 AM
Mix type	Ascri	Ascri	Ascri
Production rate TPH	380	360	390
Virgin aggregate TPH	260	252	274
Virgin agg. moisture content	1.8%	1.8%	1.8%
RAP TPH	0	0	0
RAP %	0	0	0
RAP moisture content			
Liquid AC TPH	12	11.5	12.4
Filler TPH	0	0	0
Mix temperature, deg. F	310	319	293
Liquid AC temperature, deg. F	274	275	275
Stack temperature, deg. F	300	305	300
Burner draft, " w.c.	-0.03"	-0.04"	-0.03"
Baghouse pressure drop	3.3"	3.2"	3.2"

I observed a number of trucks get loaded with product in the tunnel enclosure. The wind was light and didn't seem to have any effect on the loadout activity. I could not see any blue smoke or steam leave the loadout tunnel. There were no visible emissions from the exhaust stack of the coalescing filter which serves the tunnel and the silos.

The plant has been using natural gas for fuel for the past few years as it is currently cheaper than oil. The Recycled Used Oil (RUO) tank, which is portable, is currently being stored at the back of the site.

**Stack testing:**

In 2004, the facility passed stack testing which was required by the PTI, for a number of pollutants (arsenic, lead, manganese, nickel, formaldehyde, acrolein, benzene, ethylbenzene, toluene, xylene, naphthalene, CO, sulfuric acid, and hydrochloric acid). The stack testing was done while burning RUO, as that was expected to have higher emissions than using natural gas. The NSPS for HMA plants, 40 CFR Part 60 Subpart I, required a one time particulate stack test. This plant underwent and passed the particulate stack testing in another state, prior to purchase by Rieth-Riley. This was a one-time test, and did not need to be repeated by Rieth-Riley, when they located the plant here, in 2003. No other stack testing is required at this time.

**Records:**

PTI No. 97-03A requires that the facility keep daily records of production, such as total daily production, the amount of paving mixes which contain RAP, and the amount of RAP actually used in the RAP mixes. Mr. Grifka provided me with the daily report for 7/16/2014 and the monthly report for June, 2014. The plant is limited to 400 tons per hour and 850,000 tons/year in the permit. According to the records, the average production rate is around 200 tph and the max has not exceeded the 400 tons per hour limit. The plant did reach 390 tph during the inspection but this was considered a very busy day. The June 2014 report indicated a 12-month rolling amount of 209,137 tpy, well below the permit limit. RAP was averaging 28% which is well below the permit limit of 50%. The plant was not using any RAP today as the mix did not call for it and the plant was running between 360 and 390 tons per hour as they had a large job they working on.

**Control device performance:**

The baghouse appeared to be working properly during the inspection, as no visible emissions were observed. During the inspection, pressure drop was 3.2", water column (w.c.). This is very representative of normal operations, for this baghouse.

Mr. Grifka performs the required CO testing for the drum dryer. The purpose of this testing is to help fine tune the burner for the drum. AQD has determined, from past stack testing statewide, that emissions of Hazardous Air Pollutants from HMA plants are lower when burners are working efficiently.

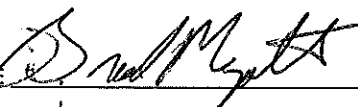
The truck loadout and silo control system appeared to be working properly. No emissions of blue smoke or steam appeared to leave the tunnel enclosure, despite some variable winds. Also, no visible emissions were observed from the coalescing filter which controls loadout and silo emissions.

**Conclusion:**

Mr. Harris informed me that the paved plant roadway and yard area had recently been swept and that several water trucks are on site to keep fugitive dust down. Tom estimated that upwards of 35 trucks had already been loaded with product today and the fugitive dust appeared to be minimal.

Mr. Harris and Mr. Grifka were very knowledgeable about HMA operations, and were very helpful. Based upon the inspection, the facility appears to be in compliance with PTI No. 97-03A, with the Air Pollution Control Rules, and with the NSPS for HMA facilities, 40 CFR Part 60, Subpart I.

NAME



DATE



SUPERVISOR



