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

P078149489

FACILITY: BACCO CONSTRUCTION CO PLANT PUC-10250		**SRN / ID:** P0781
LOCATION: N3676 US 2, IRON MOUNTAIN		**DISTRICT:** Upper Peninsula
CITY: IRON MOUNTAIN		**COUNTY:** DICKINSON
CONTACT: Kyle Fortier , Project Superintendent		**ACTIVITY DATE:** 07/10/2019
STAFF: Sydney Bruestle	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled onsite inspection to verify compliance with PTI 4-17 and all other applicable state and federal air quality regulations.		
RESOLVED COMPLAINTS:		

On July 10. 2019 I (Sydney Bruestle) performed an onsite inspection of Bacco Construction Company, the portable asphalt plant was operating in Inwood Township (Schoolcraft County) Michigan. While onsite I met with Eric Dufek, plant operator. Mr. Dufek gave me an overview of the plant and was able to provide me with the required records.

Bacco Construction Company operates a portable Hot Mix Asphalt (HMA) facility. The plant includes aggregate conveyors and counter flow drum mixers. A fabric filter dust collector is used to control PM emissions. The facility has been in two locations since May 2019. The plant will move again in August 2019. The facility is not allowed to remain at one geographical site for more than 24 consecutive months. They must notify the Air Quality Division (AQD) at least 21 days prior to relocating the plant.

Below is a description and summary of compliance for each emission unit covered by PTI 4-17:

EUHMAPLANT:

***Description*: Hot mix asphalt plant (HMA) portable facility. Aggregate conveyors, counter flow drum mixer.**

***Pollution control equipment*: Fabric Filter Dust Collector.**

Emission Limits:

Pollutant	Emission Limit(s)	Actual Emissions/Compliance Demonstration
PM	*0.4 gr/dscf* *0.03 lb/ton*	Stack Test performed on August 17, 2017: PM results: 0.0002 gr/dscf 0.003 lb/ton of HMA paving material
CO	*0.13 lb/ton* *16.3 tpy*	Emission Calculations: June 2019: 1.7 tpy
SO2	*0.96 lb/ton*	Sulfur content of fuel oil is limited to 1.5% by weight: results from last fuel delivery 9/25/18: 0.1% by weight sulfur
NOx	*0.055 lb/ton*	Low NOx burner is installed and maintained, AQD can request testing in the future
Lead	*2.0x 10 $^{-6}$ lb/ton*	Lead content of fuel is limited to 100 ppnw: last fuel analysis 9/25/2019: Lead: 1.0 ppmw AQD may request testing in the future
Benzene	0.001 lb/ton	Air Quality Division (AQD) may request

		testing in the future
Toluene	0.006 lb/ton	AQD may request testing in the future
Ethylbenzene	0.001 lb/ton	AQD may request testing in the future
Xylene	0.001 lb/ton	AQD may request testing in the future
Naphthalene	0.001 lb/ton	AQD may request testing in the future
Formaldehyde	0.01 lb/ton	AQD may request testing in the future
Acrolein	0.001 lb/ton	AQD may request testing in the future
Arsenic	1.0 x10 -6 lb/ton	Arsenic content of fuel is limited to 5.0 ppmw Most recent fuel analysis 9/25/2019: 1.0 ppmw
Nickel	1.0 x 10^{-6} lb/ton	AQD may request testing in the future
H2SO4	0.0032 lb/ton	Sulfur content of fuel oil is limited to 1.5% by weight: results from last fuel delivery 9/25/18: 0.1% by weight sulfur AQD may request testing in the future
Hydrogen Chloride	0.006 lb/ton	Total halogens content of fuel oil is limited to 4000 ppmw. Most recent fuel analysis 9/25/2019: Total Halogens: 200 ppmw. AQD may request testing in the future.

Material Limits/Design Equipment Parameters:

The facility only burns Fuel Oil #2 and recycled used oil. Each shipment of fuel oil contains a fuel analysis. Mr. Dufek was able to show me fuel analysis for the last few years.

The facility is limited to the following pollutant concentrations in the fuel: (The actual recorded concentrations are from a fuel analysis sent on 9/25/2018)

Contaminant	Limit	Actual
Arsenic	*5.0 ppmw*	1.0 ppmw
Cadmium	*2.0 ppmw*	0.1 ppmw
Chromium	*10.0 ppmw*	4.0 ppmw
Lead	*100.0 ppmw*	1.0 ppmw
PCBs	*1.0 ppmw*	1.0 ppmw
Total Halogens	*4000.0 ppmw*	200 ppmw
Sulfur	*1.5 % weight*	0.1 % weight
Minimum Flash Point	*100*	>200 F
Maximum Ash Content	*1.0 % weight*	0.1 % weight

Bacco is limited to 50% reclaimed asphalt pavement (RAP). Mr. Dufek provided me with records showing 15-28% RAP content, depending on the blend. The facility is also limited to 250,000 tons of HMA paving materials per 12 month rolling time period and 400 tons HMA/hour, June 2019 records showed 120,411 tpy HMA produced and around 265 tons/hr (Records are included in the hard file of this report). The

facility operates water trucks to control truck traffic dust. The facility always operates a fabric filter dust collector the plant is in operation. The pressure drop across the baghouse is maintained between 2-6 in WC, at the time of my inspection the differential pressure read 3.3 inches WC.

Testing/Sampling:

The facility completed stack testing for Particulate Matter (PM) on August 17, 2017. The results are discussed above in the emission limits table. AQD can request testing for CO, SO2, NOx, Lead, and the Toxic Air Contaminants (TACs) listed in the emission limit table, this may be requested in the future.

Monitoring/Record Keeping:

Bacco continuously monitors the virgin aggregate feed rate and RAP feed rate to EUHMAPLANT. During my inspection the total feed rate (aggregate and RAP) was 264 tons/hr and 24% RAP. The asphalt paving material product temperature was 265 F.

The plant performs CO monitoring at the start of each Paving season, every 500 hours of operation, and after a drum malfunction. The CO emissions must be less than 500 ppmv to ensure EUHMAPLANT is operating properly. Below are the results of the CO monitoring done May 2019:

Time	*CO reading*
Initial	350 ppmv
2 min	365 ppmv
5 min	368 ppmv
10 min	348 ppmv
15 min	358 ppmv
20 min	359 ppmv
25 min	342 ppmv
30 min	365 ppmv

The Bacco plant is located more than 1000 feet from places of public assembly and more than 800 feet away from residential or commercial establishment, as PTI 4-17 requires.

EUYARD

Description: Fugitive dust sources: plant roadways, plant yard, material storage piles, material handling operations.

The plant operates 2 water trucks to minimize fugitive dust emissions from the facility.

EUTANKS

Description: Liquid asphalt cement storage tanks

There are two 30,000-gallon liquid asphalt storage tanks onsite. The facility has installed condensers on both tanks to collect gases and return as liquid to the tanks.

Compliance Determination:

At the time of my inspection it appeared Bacco Construction Company met the requirements of PTI 4-17 and all other applicable state and federal air quality regulations.

NAME _____ DATE 7-31-19 SUPERVISOR _____