

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B645164546

FACILITY: BACCO CONSTRUCTION CO PLANT 12		SRN / ID: B6451
LOCATION: N 3676 US 2, IRON MOUNTAIN		DISTRICT: Marquette
CITY: IRON MOUNTAIN		COUNTY: DICKINSON
CONTACT: Don LaForce , Plant Operator		ACTIVITY DATE: 09/02/2022
STAFF: Lauren Luce	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Inspection		
RESOLVED COMPLAINTS:		

Facility: Bacco Construction Company Plant 12 (SRN: B6451)

Location: County Road 480, Sands Township, MI 49855

Contact(s): Don LaForce, Plant Operator

Regulatory Authority

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

Facility Description

Bacco Construction Company is a general contractor, asphalt material producer, and pavement contractor based out of Iron Mountain, MI.

Plant 12 is a portable HMA plant located in Sands Township, Marquette County, MI. The plant is located off County Road 480 near a gravel pit and landfill. The plant operates under Permit to Install (PTI) No. 547-78BG. The HMA plant consists of aggregate and reclaimed asphalt pavement (RAP) storage piles, cold feed bins, conveyors, screens, drum dryer, fabric filter, asphalt cement storage tanks, silos, loaders, and haul trucks.

Process Description

HMA is produced by the drying and mixing of aggregate, RAP, and liquid asphalt cement. HMA plants can be categorized as either batch or continuous mix. Continuous mix plants are further subdivided based on the type of dryer, which can be either a parallel-flow drum or counter-flow drum.

The HMA process begins with the transfer of aggregate, consisting of sand and crushed rock, from storage piles into cold aggregate feed bins. From the bins, material is dispensed onto conveyors that transport the material into screens and then into the drum dryer. The quantities of the type and size of aggregate are determined from the control room. The virgin aggregate is heated by a natural gas-fired burner to remove moisture. Once the virgin aggregate reaches a certain length of the dryer, RAP is dispensed from a separate bin and added to the dryer. The RAP and aggregate continue to be heated and are then mixed with asphalt cement prior to exiting the

dryer. After exiting the dryer, HMA is conveyed to storage silos where it is loaded into trucks to be hauled off-site.

Emissions

The primary source of emissions from all three types of plants is the dryer. Air contaminants emitted include PM from aggregate drying and gaseous pollutants from the combustion process of the dryer. The gaseous pollutants consist of sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC). The quantities of gaseous pollutants emitted varies based on the type of fuel being burned and operating parameters. A fabric filter collector is primarily used as PM control for the dryer. Other sources of emissions at HMA plants include fugitive emissions of PM and VOCs from storage silos, truck load-out operations, liquid asphalt cement storage tanks, aggregate storage and handling, and vehicle traffic. Dust suppressants, such as water or calcium chloride, can be used to control fugitive PM emissions.

Emissions Reporting

Bacco Construction Company Plant 12 is a synthetic minor source and is subject to the New Source Performance Standards (NSPS), Subpart I – Standards of Performance for Hot Mix Asphalt Facilities. This facility is required to report its annual emissions to the Michigan Air Emissions Reporting System (MAERS). The table below shows the facility’s 2021 MAERS submittal.

Pollutant	Pounds per Year (PPY)	Tons per Year (TPY)
CO	5907.64	2.95
NOx	2499.39	1.24
PM10	1636.12	<1
PM2.5	681.65	<1
SO2	2635.72	1.32
VOC	1454.19	<1

Compliance History

The facility has not received any violation notices in the past five years. The facility was last inspected in 2020 and was found to be in compliance with all applicable air quality rules and federal regulations at that time.

Regulatory Analysis

Bacco Construction Company Plant 12 is subject to PTI No. 547-78BG. The facility is considered a minor source for criteria pollutants and a synthetic minor source for hazardous air pollutants (HAPs). The source is subject to 40 CFR Part 60 Subpart I, NSPS for Hot Mix Asphalt Facilities, because the source is defined as a hot mix asphalt facility that commenced construction after June 11, 1973.

Inspection

On September 2, 2022, AQD Staff (Lauren Luce) conducted an unannounced inspection of the Bacco Construction Company Plant 12 in Sands Township, MI. Weather conditions at the time were clear with winds at 10mph out of the SW and temperatures of 82 degrees Fahrenheit. Upon arrival, observations of the plant and yard were taken to inspect for fugitive emissions and opacity limits. No visible emissions were detected, and the plant roadways were well saturated. The plant was not operating upon arrival, but two employees were on site. Operations and equipment were discussed with plant operators, Don LeForce and Calvin Wiltse. An inspection was completed to check for necessary installations and condition of air pollution control equipment. The baghouse was installed and connected to the drum dryer. The baghouse appeared to be in good condition with no holes or gaps in the structure. Half of the bags were changed in Spring 2022, the other half will be changed in Spring 2023. The main exhaust duct from the dryer to the baghouse also appeared to be in good condition with no gaps in the structure. The stack appeared to be at least 27 feet from ground level. No asbestos containing raw material is used at the plant. The plant appears to be in compliance with Special Conditions (SC) 14-18, 20, 21. There are no residences located within 800 feet of the plant and relocation notices have been submitted by the source (SC 25).

Records were requested to ensure compliance with PTI No. 547-78BG. In 2021, the plant operated for 334 hours and produced 45,213 tons of asphalt using 8,703 tons of RAP (SC 19, 24). A fuel analysis from 8/24/21 shows all parameters are within permitted limits (SC 13, 22, 23)

Compliance

Based on the site inspection and records reviewed, Bacco Construction Company Plant 12 appears to be in compliance with PTI No. 547-78BG.



Image (1): Baghouse



Image (2): Drum dryer to baghouse

NAME Sam Sam

DATE 9-14-22

SUPERVISOR Michael Kaplan