

TO Air Quality Permit File SOOP # 65-00659
Hanson Aggregates BMC, Inc. / Adamsburg Asphalt Plant

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DATE November 3, 2015

RE Review of State Only Operating Permit Renewal Application
Hempfield Township, Westmoreland County
APS# 691243; AUTH # 789426; PF# 515648

Background

On April 17, 2009, the Department received a State Only Operating Permit (SOOP) renewal application Hanson Aggregates BMC, Inc. / Adamsburg Asphalt Plant located in Hempfield Township, Westmoreland County. The Department determined the application was administratively complete on April 22, 2009. The facility is operating under SOOP 65-00659 issued on November 17, 2004, and expired on November 17, 2009. Hanson has been operating under 25 Pa Code Section 127.446(c): The terms and conditions of an expired permit are automatically continued pending the issuance of a new permit when the permittee has submitted a timely and complete application and paid the fees required by Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit.

Sources, Control Devices and Emissions

Hanson owns and operates a Hot Mix Asphalt (HMA) plant. The plant produces asphalt concrete using a 500 ton per hour GenCor drum dryer. The HMA process begins with the loading of different sized aggregate from stockpiles into cold bins. From the cold bins, calibrated vibratory feeders control the amounts of each aggregate falling onto a conveyor that leads to the inlet of the dryer where the material is dried and heated. The dryer is equipped with a Gencor burner rated at 150 MMBtu/hr. The burner is capable of burning natural gas, fuel oil (No.2 and 4) or waste derived liquid fuel.

The dryer is equipped with a knock out box and a Gencor baghouse rated at 84,000 cfm. The baghouse is a pulse jet type baghouse and holds 588 Nomex bags. The baghouse is equipped with inlet and outlet temperature sensors. Dust collected in the baghouse is returned to the mixer drum via an enclosed auger.

Hanson is limited to the emission thresholds of a State Only Operating Permit of 100 tpy CO, 100 tpy NOx, 100 tpy SOx, 50 tpy VOC, 100 tpy PM₁₀ and 10 tpy HAPs. Hanson is not capable of emitting these levels as the permit limits production from the facility to no more than 736,000 tpy asphalt, fuel usage to no more than 1,386,000 gallons of No. 2, No. 4, and WDLF, and particulate emissions from the baghouse to no more than 0.02 gr/dscf. Potential emissions are based on AP-42 and throughput limit of 736,000 tpy (460 tph and 1600 hr/yr) as provided in Table 1. Carbon monoxide (CO) emissions are based on the highest CO test result of the 2003 stack test and multiplied by a 10 percent increase (89.3 lbs/hr * 1.1 = 98.2 lbs/hr CO), approved by the Department on May 11, 2004. (Additional information can be found in the review memo for the 2004 PA-65-00659B modification.)

Table 1: Potential Emissions

Pollutant	AP-42 Emission Factor (lbs/ton)	Emission Limit (lbs/hr)	Emission Limit (TPY)
PM	0.033	15.2	12.2
PM ₁₀	0.023	10.6	8.5
SOx	0.058	26.7	21.4
CO	----	98.2	78.6
NOx	0.055	25.3	20.2
VOC	0.032	14.7	11.8

Testing

Stack testing was last performed on August 21st, 2013, to determine compliance with the operating permit requirements and emission limitations of the baghouse exhaust [filterable particulate matter (Method 5), NOx (Method 7E), carbon monoxide (Method 10), VOC (Method 25A) and visible emissions (Method 9)]. On October 21-22, 2013, filterable particulate matter and visible emissions were retested. The results were determined acceptable to the Source Testing Section on September 16, 2014. The average asphalt production rate was 400 tph. The results are listed in Table 2.

Table 2: Stack Test Results

Tested Pollutants	Units	Average Results	Emission Limitation
NOx	ppm	55	n/a
	lbs/hr	17.2	n/a
CO	ppm	438	n/a
	lbs/hr	83.4	n/a
VOC	ppm	30	n/a
	lbs/hr	9.0	n/a
FPM	gr/dsf	0.007	0.02
	lbs/hr	2.4	n/a

Drum burner fueled with WDLF during testing.

Regulatory Analysis

Hanson is subject to the applicable requirements of 25 PA Code, Chapters 121 through 145 as incorporated into the proposed operating permit.

Hanson is subject to 40 CFR Part 60 Subpart I- Standards of Performance for Hot Mix Asphalt Facilities per 60.90(b): any facility that commences construction or modification after June 11, 1973. The facility is subject to the subpart but the operating permit limits are more stringent.

Hanson is not subject to 40 CFR Part 60 Subpart OOO- Standards of Performance for Nonmetallic Mineral Processing Plants. The facility does utilize RAP; however they do not own any crushers or grinders. Therefore, this subpart is not applicable.

Recommendations

On October 25, 2011, an annual compliance monitoring inspection was performed by Mr. Phil Sapala. The Department did not note any violations at the time of the inspection. It is my recommendation that the State Only Operating Permit renewal for Hanson Aggregates BMC, Inc. / Adamsburg Asphalt Plant, SOOP 65-00659, be issued.

The Notice of Intent to Issue will be published in the PA Bulletin for a 30-day public comment period. The proposed Operating Permit renewal will be submitted to Hanson Aggregates for review as well as the Department's Air Quality Specialist, Phil Sapala.