

TO Air Quality Permit File SOOP # 03-00104
M & M Lime Company, Inc. / Ag. Lime Plant

FROM Sheila A. Shaffer *SAS*
Air Quality Engineering Specialist
Air Quality Program

THROUGH Thomas J. Joseph, P.E. *TJJ*
Environmental Manager
Air Quality Program

Mark R. Gorog, P.E. *MRG*
Regional Program Manager
Air Quality Program

DATE January 10, 2017

RE Comment and Response Document
West Franklin Township, Armstrong County
APS# 736134; AUTH # 858404; PF# 515396

Background

On October 1, 2010, the Department received a State Only Operating Permit (SOOP) renewal application for M&M Lime Company, Inc. / Ag. Lime Plant for its limestone deep mine and an open pit mine to produce mainly riprap stone located in the Township of West Franklin, Armstrong County. M&M has complied with the municipal notification requirements contained in 25 Pa. Code §127.413 and the application fee requirements contained in 25 Pa. Code §127.703(b)(3). M&M is authorized to operate under SOOP 03-00104 issued on March 29, 2006 and expired on March 29, 2011. On December 7, 2010, the Department determined the application was Administratively Complete. M&M has continued to operate under the expired operating permit per 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.

Recommendation:

On April 4, 2016, a full compliance evaluation was performed by Scott Wineman, Air Quality Specialist. Mr. Wineman did not note any violations at the time of the inspection.

On December 10, 2016, the Notice of Intent to issue was published in the PA Bulletin for a 30-day public comment period. The proposed operating permit was submitted to M&M for their review as well as the Air Quality inspector and District Supervisor for this facility. No comments were received.

It is my recommendation that the State Only Operating Permit renewal for M&M Lime Company / Ag Lime Plant, SOOP 03-00104, be issued.

TO Air Quality Permit File SOOP # 03-00104
M & M Lime Company, Inc. / Ag. Lime Plant

FROM Sheila A. Shaffer *SAS*
Air Quality Engineering Specialist
Air Quality Program

THROUGH Thomas J. Joseph, P.E. *TJJ* Environmental Manager
Air Quality Program
Mark R. Gorog, P.E. *MRG*
Regional Program Manager
Air Quality Program

DATE November 16, 2016

RE Review of State Only Operating Permit Renewal Application
West Franklin Township, Armstrong County
APS# 736134; AUTH # 858404; PF# 515396

Background

On October 1, 2010, the Department received a State Only Operating Permit (SOOP) renewal application for M&M Lime Company, Inc. / Ag. Lime Plant for its limestone deep mine and an open pit mine to produce mainly riprap stone located in the Township of West Franklin, Armstrong County. M&M has complied with the municipal notification requirements contained in 25 Pa. Code §127.413 and the application fee requirements contained in 25 Pa. Code §127.703(b)(3). M&M is authorized to operate under SOOP 03-00104 issued on March 29, 2006 and expired on March 29, 2011. On December 7, 2010, the Department determined the application was Administratively Complete. M&M has continued to operate under the expired operating permit per 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.

On February 14, 2011, the Department authorized the installation and operation of one 238 bhp Detroit Diesel Engine, Model No. GM671, that replaced the existing Caterpillar Diesel Engine, Model No. D342, to power the existing Air Shaft Fan on Portal #1 based on provisions for a de minimis emission increase per 25 Pa Code §127.449. The authorization is based on the maximum operation of 100 hours per year and emissions are less than 0.4 tpy NOx and less than 0.1 tpy for all other criteria pollutant.

Sources, Control Devices and Emissions

Source 101- Limestone Crushing/Screening Plant: The facility consists of 1-primary crusher, 1-secondary crusher, grinding mill, gypsum mill, riprap plant, rail car loadout and various covered hoppers and conveyors. This plant has a maximum capacity of 400 tons per hour; however, the plant is limited to 5,000 hours per year. The primary crusher is controlled by a 6,500 scfm baghouse as the other equipment is controlled by water sprays, covered on transfer points, and processed material having a high moisture content.

Source 102- (3) Diesel Generators: This source consists of 3 diesel generators that power various parts of the facility's process equipment: 3306 Caterpillar Engine rated at 145 bhp powers the riprap plant; 3306 Caterpillar Engine rated at 145 bhp powers the main cone crusher; and 3406 Caterpillar Engine rated at 350 bhp powers the Ag. Lime plant.

Source 103- GM 671 Detroit Engine: The 238 bhp engine is utilized as a backup power supply for the Air Shaft Fan on Portal #1. The engine was authorized for installation on February 14, 2011 and is limited to operate no more than 100 hours per year.

Source 104- D343 Caterpillar Engine: The 425 bhp engine is utilized as a backup power supply to any of the process equipment. The engine is limited to operate no more than 100 hours per year

The potential emissions generated by this operation are controlled through the use of raw materials with high moisture content, a water spray system, baghouse, rated at 6,500 scfm, and covered transfer points. A pressurized water truck is used to control fugitive emissions from the haulroads.

M&M is Synthetic Minor State Only Operating Permit. State Only emission definitions are included in the Miscellaneous Section of the proposed operating permit renewal at: 100 tpy CO, 100 tpy NO_x, 100 tpy SO_x, 50 tpy VOC, 100 tpy PM₁₀ and 10 tpy HAPs. M&M is not capable of emitting these emission rates as the permit limits the facility from operating more than 5,000 hours, 100 hours of operation for engines CAT3406, GM671, and D343, and 0.04 gr/dscf PM. Potential emissions generated by this operation are controlled through the use of raw materials with high moisture content, a water spray system, baghouse, and covered transfer points. A pressurized water truck is used to control fugitive emissions from the haulroads. M&M calculated potential emissions, based on AP-42 emission factors and above mentioned factors and limitations, at: 85.45 tpy NO_x, 18.41 tpy CO, 5.65 tpy SO_x, 47.75 tpy PM₁₀, 6.81 tpy VOC, and 3.25 tpy HAPs.

Regulatory Analysis:

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

40 CFR Part 60, Subpart OOO-Standard Performance for Nonmetallic Mineral Processing Plants was promulgated on August 1, 1985. Per §60.670(a), this subpart is applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. M&M is subject to the applicable requirements of Subpart OOO as incorporated into this proposed operating permit renewal.

40 CFR Part 60, Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines was promulgated on July 11, 2006 and was last amended on July 7, 2016. Per §60.4200(a), this subpart applies to stationary compression ignition (CI) internal combustion engines (ICE) that commenced construction after July 11, 2005, where the manufactured date is after April 1, 2006, and is not a fire pump engine. This subpart also applies to CI ICE manufactured after July 1, 2006 as a certified National Fire Protection Association fire pump engine. The engines specified in this operating permit were all manufactured prior to dates mentioned above; therefore the facility is not subject to Subpart IIII.

40 CFR Part 60, Subpart JJJJ-Standards of Performance for Stationary Spark Ignition Internal Combustion Engines was promulgated on January 18, 2008 and was last amended on August 30, 2016. Per §60.4230, this subpart applies to stationary spark ignition internal combustion engines (SI ICE). The engines specified in this operating permit are compression ignition (CI) and not considered stationary SI ICE; therefore the facility is not subject to Subpart JJJJ.

40 CFR Part 63, Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines was promulgated on June 15, 2004 and last amended on January 30, 2013. This subpart applies to all engines located at an area source of HAPs. Each engine has a different applicability. The two CAT 3306 are required to change oil and filter and inspect air cleaner every 1,000 hours of operation or annually whichever comes first; and inspect all hoses and belt based every 500 hours or annually whichever comes first. The CAT 3406 engine meets the definition of limited use (operates less than 100 hours per year) therefore; there are no other work practice requirements applicable. Engines D343 and GM671 are required to change oil and filter, and inspect all hoses and belts every 500 hours or annually. D343 and GM671 are also required to inspect air cleaner every 1,000 hours or annually whichever comes first. All applicable requirements of Subpart ZZZZ have been incorporated into this proposed operating permit renewal.

Recommendation:

On April 4, 2016, a full compliance evaluation was performed by Scott Wineman, Air Quality Specialist. Mr. Wineman did not note any violations at the time of the inspection. It is my recommendation that the State Only Operating Permit renewal for M&M Lime Company / Ag Lime Plant, SOOP 03-00104, 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 will be submitted to M&M for their review as well as the Air Quality inspector and District Supervisor for this facility.