

Neiswonger Construction Inc.

Permit Application #03230101

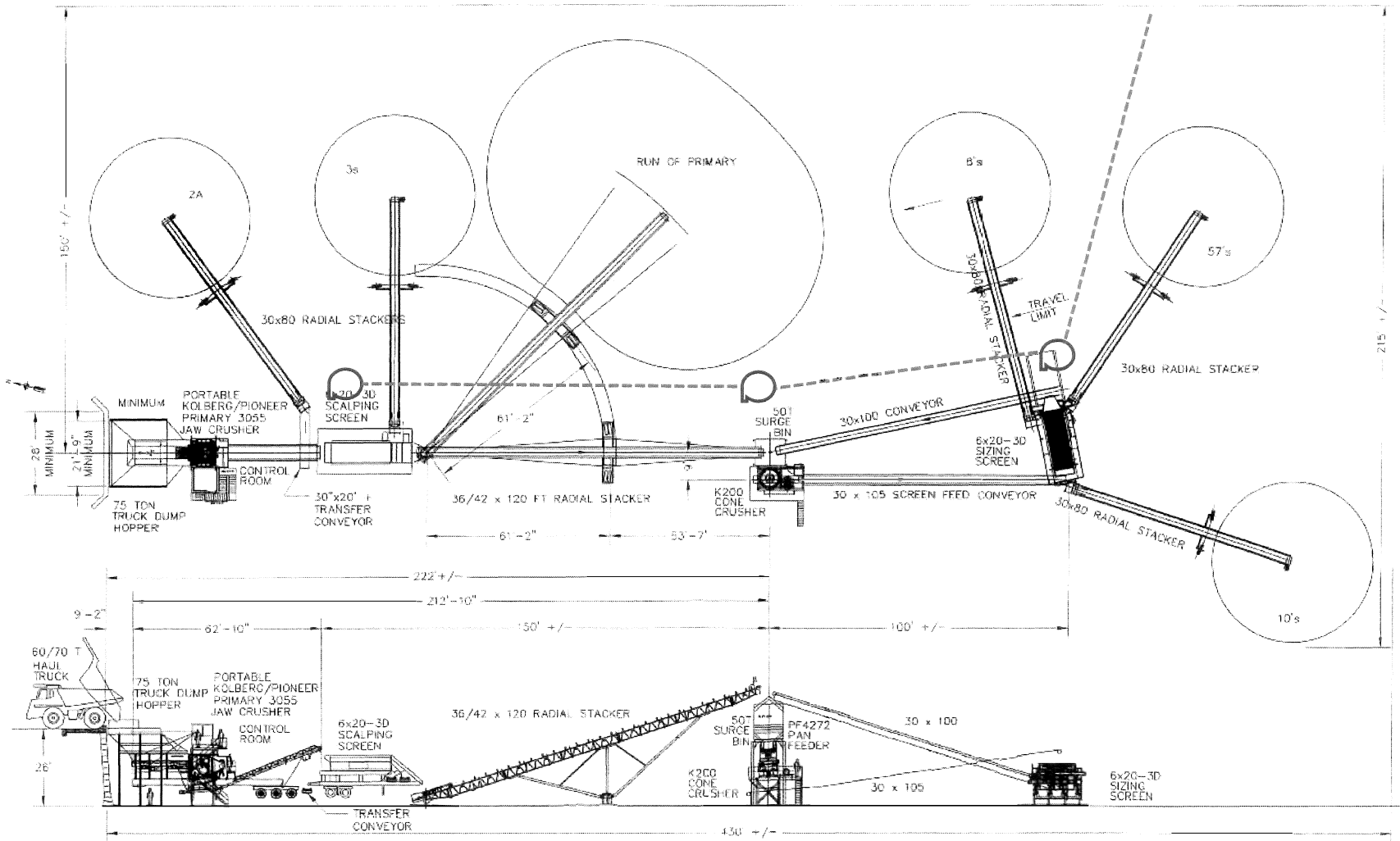
Air Quality Monitoring Plan


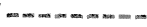
July 2024

Summary. Enclosed is an air quality monitoring plan for the Maggie Lynn Quarry off of Pump Station Road off Morey Road (SR 2041) in Deemston Borough, Washington County. The current facility possesses a noncoal surface mining permit number SMP No. 63100401-07. The facility operates under NAICS Code No. 212319. All equipment associated with crushing operations operates by electricity from the electric grid year-round.

Air emission controls associated with the facility are under the regulation of Air Quality Permit File GP3-63-00970F issued on May 27, 2022. The emission controls are for the following equipment operating show on the drawing of the next page. This equipment is planned to be on site through the calendar year.

1. One (1) Primary Jaw Crusher, Model No. Pioneer 3055, manufactured by Astec, rated at 299 tph, and was installed in June 2021. Expected hours of operation are 2,000 hr/yr.
2. One (1) Cone Crusher, Model No. KPI-JCI Kodiak, manufactured by Astec, rated at 255 tph, and was installed in June 2021. Expected hours of operation are 2,000 hr/yr. The cone crusher feeds the following stackers:
 - a. North star Equipment 30' x 100' conveyor return feeds to the cone crusher. Capacity 51 tph
 - b. North star Equipment 30' x 80' stacker feeding #57. Capacity 106 tph.
 - c. North star Equipment 30' x 60' stacker feeding #8. Capacity 57 tph.
 - d. North star Equipment 30' x 80' stacker feeding #57. Capacity 43 tph.
3. One (1) Vibratory Screener, Model No JCI 6203-32LP, manufactured by Astic, rated at 410, and was installed in June 2021. Expected hours of operation are 2,000 hr/yr. This screener feeds three (3) separate radial stackers:
 - a. North Star Equipment 30' x 80' – feeding a 2A gravel pile. Capacity 99 tph
 - b. KPI-JCI 13-3680 Radial Stacker feeding AASHTO #3 pile Capacity 107 tph
 - c. MEI 42' x 120' radial stacker feeding the cone crusher. Capacity 204 tph.
4. One (1) Non-Vibratory Screen, Model No. Johnson Crusher, Manufactured by Astec, rated at 260 tph, and was installed in June 2021. Expected hours of operation are 2,000 hr/yr; and
5. Two (2) Conveyors, manufactured by North Star, rated at 51 tph, and were installed in June 202. Expected hours of operation are 2,000 hr/yr.



Water Nozzle location 
 Line From sump Pit Supply 

Maggie Lynn Crushing Operation Layout

Dust Suppression Nozzle Location Map

Emission Restrictions – Prohibition of certain fugitive emissions. Neiswonger Construction Inc. shall not permit the emission of fugitive air contaminants from a source into the outdoor atmosphere other than the following:

1. Construction or demolition of buildings or structures.
2. Grading, paving and maintenance of roads and streets.
3. Use of roads and streets. Emissions from material in or on trucks, and other vehicular equipment are not considered as emissions from use of roads and streets.
4. Clearing of land.
5. Stockpiling of materials.
6. Open burning operations.
7. Blasting in open pit mines. Emissions from drilling are not considered as emissions from blasting.
8. Sources and classes of sources other than those identified above, for which the Neiswonger Construction Inc. has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - a. The emissions are of minor significance with respect to causing air pollution; and
 - b. The emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard

Emission Restrictions – Fugitive particulate matter. The Neiswonger Construction Inc. shall not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in the emission restrictions numbered one (1) through eight (8) above if such emissions are visible at the point the emissions pass outside the properties that are a part of the Maggie Lynn permit area.

Emission Restrictions – Limitations. Air emission controls associated with the facility are under the regulation of Air Quality Permit File GP3-63-00970F. A summary of the permit limits is given on the following page:

Table:1
Processing Plant Potential Emissions

Sources of Containments	PM Emissions		
	Un- Controlled (tpy)	Control Efficiency	Controlled (tpy)
Unpaved Roadways	27.21	50%	13.61
Drop Operations	5.45	50%	2.73
Crushing	2.70	50%	1.35
Screening Activities	12.50	50%	6.25
Total	47.86	50%	23.93

1. The emission estimate is based on annual throughput of 500,000 tons of processed material.
2. Emission of drop operation, and hopper loading are calculated per AP-42 Section 13.2.4.
3. Emissions from unpaved roadways are calculated per AP-42. Table 13.2.2 using approximately 9,434 trucks per year entering and leaving facility yielding a daily VMT of approximately 0.56 miles per day.
4. Emission factors for crushing stone per 11.19.2-2.
5. A control efficiency of 50% is assumed due to availability of water sprays to determine PM emissions
6. Values may be slightly off due to rounding.

Table:2
Processing Plant Potential Emissions

Sources of Containments	PM-10 Emissions		
	Un- Controlled (tpy)	Control Efficiency	Controlled (tpy)
Unpaved Roadways	6.84	50%	3.42
Drop Operations	4.13	50%	2.07
Crushing	0.06	50%	0.30
Screening Activities	2.23	50%	1.12
Total	13.80	50%	6.91

1. The emission estimate is based on annual throughput of 500,000 tons of processed material.
2. Emission of drop operation, and hopper loading are calculated per AP-42 Section 13.2.4.
3. Emissions from unpaved roadways are calculated per AP-42. Table 13.2.2 using approximately 9,434 trucks per year entering and leaving facility yielding a daily VMT of approximately 0.56 miles per day.
4. Emission factors for crushing stone per 11.19.2-2.
5. A control efficiency of 50% is assumed due to availability of water sprays to determine PM emissions
6. Values may be slightly off due to rounding.

Total Controlled PM emissions = 23.93 tpy

Total Controlled PM-10 emissions = 6.91 tpy

Compliance. Fugitive air contaminants from the nonmetallic mineral processing plant shall not at any time exceed the limitations specified in 25 PA Code §§123.1 and 123.2. A Water Spray Dust Suppression System shall be located on the crusher and at the transfer points to minimize fugitive emission. The water spray system must operate at all times when the plant is operation unless the material contains sufficient moisture to not create air contaminant emissions in excess of the limitations. A water truck shall be utilized to prevent fugitive emission from becoming airborne onto any roadways or from materials stockpiling. The maximum speed limit on all mining roadway surfaces will be restricted to fifteen (15) miles per hour and will be strictly enforced.

Dust from stockpiles will be reduced by minimizing the height of free fall of material and minimizing wind erosion of stockpile by locating stockpiles behind natural or manufactured windbreaks as noted by the applicant. An inactive stockpile shall be covered with tarps or other inexpensive materials minimizing wind erosion. Any vehicular traffic on or around the stockpile shall be minimized.

Site Testing Requirements - Upon the request of the Department, Neiswonger Construction Inc. shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on the source. The Department will set forth, in the request, the time period in which the facilities shall be provided, as well as the specifications for such facilities.

Monitoring Requirements – Operation terms and conditions. Based on requests of the department, visible emission may be documented as follows:

1. Neiswonger Construction Inc. shall conduct a weekly inspection of the facility during daylight hours while the facility is operating to detect visible emissions, visible fugitive emissions, and malodors. Weekly inspections are necessary to determine:
 - a. The presence of visible emissions.
 - b. The presence of visible fugitive emissions.
 - c. The presence of malodors beyond the boundaries of the facility.
2. All detected visible emissions, visible fugitive emissions, or malodors that have the potential to exceed applicable limits shall be documented and reported to the manager of the facility.
3. Neiswonger Construction Inc. shall submit any requested monitoring reports in accordance with the Department's suggested frequency and format.
4. Neiswonger Construction Inc. shall report malfunctions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air

pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Malfunctions that are not resulting in, or potentially resulting in, air contaminant emissions in excess of an applicable air contaminant emission limitation and/or are not resulting in, or potentially resulting in, noncompliance with any condition contained in this operating permit do not have to be reported. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

5. Any malfunction that poses an imminent danger to the public health, safety, welfare, or environment shall be reported by telephone to the Department and the County Emergency Management Agency immediately after the discovery of an incident. Neiswonger Construction Inc. shall submit a written report of instances of such malfunctions to the Department within three (3) business days of the telephone report. In notifying the Department, there will be a description of the following:
 - a. name and location of the facility;
 - b. nature and cause of the malfunction or breakdown;
 - c. time when the malfunction or breakdown was first observed;
 - d. expected duration of excess emissions;
 - e. estimated rate of emissions; and
 - f. corrective actions or preventative measures taken.
6. Neiswonger Construction Inc. shall notify the Department immediately when corrective measures have been accomplished:
7. Upon the request of the Department, the permittee shall submit a full written report to the Regional Air Program Manager within 15 days of the malfunction, excess emissions or deviation from the operation permit requirements.

Reporting Requirements – The following rules and record keeping will be kept at the Maggie Lynn mining site as follows:

Neiswonger Construction Inc. shall maintain, and make available upon request by the Department, such records, including computerized records, as maybe necessary to comply with 25 Pa. Code§135.3. These may include records of production, fuel usage, equipment maintenance or other information determined by the Department to be necessary for identification and quantification of air contaminant emissions.

The permittee shall maintain accurate and comprehensive records of the number of tons of stone loaded out from the facility each month. All such records shall be retained for at least 5 years and shall be made available to the Department upon request.

Work Practice Requirements - For any source specified in condition Emission restrictions (1) through (8), Neiswonger Construction Inc. shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
2. Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts Construction or demolition of buildings or structures.
3. Paving and maintenance of roadways.
4. Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

Operating Terms and Conditions of the Maggie Lynn Operation. The following are typical air quality permit conditions derived from 25 PA Code §§127.1 and 127.12. These are as follows:

1. The entrance road to the facility shall be paved for the first 300 feet.
2. All trucks entering or exiting the facility via a public roadway will have their truck beds completely tarped or otherwise covered unless empty. This requirement shall be posted in readily visible locations throughout the facility.
3. An operable water truck equipped with a pressurized spray bar and pressurized hose, or nozzle connection shall be always maintained on-site and shall be used as needed to control fugitive dust emissions from plant roadways, stockpile areas and the like.
4. Neiswonger Construction Inc. shall install permanent water spray bars with multiple water nozzles at every transfer point, screen, and crusher along the nonmetallic mineral processing plant. All permanent water spray bars shall be operated as necessary to keep all material processed adequately wetted for the facility to operate in accordance with 25 Pa Code §123.1.
5. Neiswonger Construction Inc. shall maintain all air contamination sources and air cleaning devices per manufacturer's specifications and good operating practices.

6. Neiswonger Construction Inc. shall operate the road sweeper and/or pressurized water truck throughout the day as needed to prevent fugitive emissions in accordance with 25 Pa Code §§ 123.1 and 123.2 and keep record of all operations of the road sweeper and/or pressurized water truck. (Sweeper and/or pressurized water truck should be run at the entrance to the Facility at the close of business.)