



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

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APR 19 2013

Mr. Warren Langland
President
Neosho Concrete
P.O. Box 179
Neosho, MO 64850

RE: New Source Review Temporary Permit Request - Project Number: 2013-02-066
Installation ID Number: 097-0172
Temporary Permit Number: **042013-008**
Expiration Date: April 10, 2014

Dear Mr. Langland:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to relocate a concrete plant from Webb City, Missouri to Heartland Pet Food Manufacturing, located in Joplin, Missouri 64804 (S14, T27N, R32W). The Air Pollution Control Program is hereby granting your request to conduct this temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

Neosho Concrete recently purchased a portable concrete plant from Wilson's Vault & Ready Mix located in Webb City, Missouri. The concrete plant is a CON-E-CO Lo Pro 10 that is capable of producing up to 300 tons of concrete per hour. The plant was originally permitted as a stationary concrete plant. Neosho Concrete will pour concrete for the construction of a pet food facility located in Joplin, Missouri.

No other plants will be located at this site during operation. After this project Neosho Concrete will relocate the concrete plant to its originally permitted site in Webb City, Missouri. Neosho Concrete will not use any generators to supply power to this plant. A baghouse will be used to control particulate emissions from the cement silo (EP-5A), supplement silo (EP-5B), the batch weigh hopper (EP-6), and the truck loadout (EP-7). An Operating Permit is not required for this equipment at this time.

The applicant is using one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas.

This installation is located in Jasper County, an attainment area for all criteria pollutants. This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2.



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The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

The concrete plant was previously permitted under permit number 072003-006 as a stationary concrete plant located at Wilson's Vault and Ready Mix in Webb City, Missouri.

Neosho Concrete is authorized to construct and operate subject to the following special conditions:

1. **Best Management Practices Requirement**
Neosho Concrete shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.
2. **Ambient Air Impact Limitation**
 - A. Neosho Concrete shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM₁₀) of 150.0 µg/m³ 24-hour average in ambient air.
 - B. Neosho Concrete shall demonstrate compliance with Special Condition 2.A using Attachment A or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms. Neosho Concrete shall account for the impacts from other sources of PM₁₀ as instructed in the attachments.
3. **Moisture Content Testing Requirement**
 - A. Neosho Concrete shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent by weight.
 - B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.
 - C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
 - D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
 - E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Neosho Concrete main office within 30 days of completion of the required test.

- F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 3.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceed the limit, Neosho Concrete shall either:
 - 1) Apply for a new permit to account for the revised information, or
 - 2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
 - G. In lieu of testing, Neosho Concrete may obtain test results that demonstrate compliance with the moisture content in Special Condition 3.A from the supplier of the aggregate.
4. Control Device Requirement-Baghouse
- A. Neosho Concrete shall control emissions from the equipment listed below using baghouses as specified in the permit application.
 - 1) Cement Silo (EP-5A)
 - 2) Supplement Silo (EP-5B)
 - 3) Weigh Hopper (EP-6)
 - 4) Truck Loading Shroud (EP-7)
 - B. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources employees may easily observe them.
 - C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. Neosho Concrete shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. Neosho Concrete shall maintain a copy of the baghouse manufacturer's performance warranty on site.

- F. Neosho Concrete shall maintain an operating and maintenance log for the baghouses which shall include the following:
- 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
5. **Minimum Distance to Property Boundary Requirement**
The primary emission point shall be located at least 100 feet from the nearest property boundary.
6. **Concurrent Operation Restriction**
Neosho Concrete is prohibited from operating whenever other plants are located at the site.
7. **Record Keeping Requirement**
Neosho Concrete shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources personnel upon request.
8. **Reporting Requirement**
Neosho Concrete shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (EPA) document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the concrete batch plant were calculated using emission factors from AP-42 Section 11.12 "Concrete Batching," June 2006. This section cites Equation (1) in Section 13.2.4 "Aggregate Handling and Storage Piles," November 2006 for calculating the emissions from aggregate and sand transfer. The cement and supplement silos are controlled with baghouses, so the controlled emission factors were used. Emissions from the aggregate weigh hopper were calculated using AP-42 Section 13.2.4, Equation (1). These emissions are controlled by a baghouse so a 99% control factor was applied to the calculation.

Emissions from mix truck loading are controlled, so the controlled emission factor was used.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006. A 90% control efficiency for PM and PM₁₀ and a 40% control efficiency for PM_{2.5} are applied to the emission calculations for the use of BMPs.

Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate is 1.5% by weight, which will be verified through moisture content testing.

Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program’s Emissions Inventory Questionnaire Form 2.8 “Storage Pile Worksheet.”

The table below (Table 1) summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. The existing actual emissions were taken from the 2003 EIQ because 2003 is the last year that an EIQ was completed for this equipment. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). Conditioned Potential Emissions are based on control devices and the ambient air limit to show compliance with NAAQS.

Table 1: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level	^a Potential Emissions of the Process Equipment	Existing Actual Emissions (2003 EIQ)	^b Potential Emissions of the Application	^c Conditioned Potential Emissions
PM	25.0	21.44	N/D	82.72	16.94
PM ₁₀	15.0	7.11	1.86	26.53	5.43
PM _{2.5}	10.0	4.25	0.54	13.26	2.71

N/D = Not Determined

^a Only includes emissions from process equipment. Haul road and storage pile emissions are not included.

^b Includes site specific haul road and storage pile emissions.

^c Conditioned Potential Emissions are based on control devices and ambient air limit to show compliance with NAAQS.

Table 2: Ambient Air Impact Analysis

Pollutant	^a NAAQS (µg/m ³)	Averaging Time	^b Maximum Modeled Impact (µg/m ³)	Limited Impact (µg/m ³)	Background (µg/m ³)	^c Daily Limit (tons/day)
^d PM ₁₀ (solitary)	150.0	24-hour	706.59	130.0	20.0	1,474

^aNational Ambient Air Quality Standards (NAAQS).

^bModeled impact at maximum capacity with controls.

^cIndirect limit based on compliance with NAAQS.

^dSolitary operation. Concurrent operation is prohibited for this plant.

Neosho Concrete shall notify the Air Pollution Control Program within two weeks once the concrete plant is no longer located at this facility.

You are still obligated to meet all applicable air pollution control rules, Department of Natural Resources’ rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.165 *Restriction of Emission of Odors*, 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, and 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes*.

Mr. Warren Languard
Page Six

A copy of this letter should be kept with the unit and be made available to Department of Natural Resources' personnel upon verbal request. If you have any questions regarding this determination, please do not hesitate to contact J Luebbert at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM


Kyra L. Moore
Director

KLM:jll

c: PAMS File: 2013-02-066
Southwest Regional Office

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions¹ while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources personnel upon request.

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request.

¹For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)