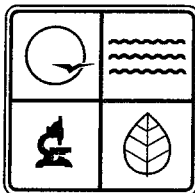


STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT BOOK



PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **07 2 0 0 6 - 0 0 8** Project Number: 2006-06-092  
Owner: Norris Aggregates Product Company PORT-0567  
Owner's Address: P. O. Box 190, Cameron, MO 64429  
Installation Name: Norris Aggregates Product Company  
Installation Address: RR1, Princeton, MO 64673  
Location Information: Mercer County, S21/22, T66N, R23W

Application for Authority to Construct was made for:

The installation of a new portable rock-crushing plant. The rock-crushing plant is a Generic Plant. Rock is processed through no more than 6 crushers, 6 screens, 1 pug mill, 1 wet screen, and 40 conveyors/bins. The rock-crushing plant has a maximum hourly design rate (MHDR) of 600 tons per hour (tph). This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

JUL 25 2006

EFFECTIVE DATE

*Steven Jula*  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES *for JLK*

STANDARD CONDITIONS:

2000 711177  
Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

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**GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.*

1. Generic Plant Designation and Maximum Combined Hourly Design Rate  
Norris Aggregates Product Company's Portable rock-crushing plant (PORT-0567) has been designated to be a Generic Plant Operation. The combined Maximum Hourly Design Rate (MHDR) for the primary unit(s) and each of the following generic equipment types shall not exceed the maximum installation capacities listed below at any time the installation is in operation.

Equipment Type	Maximum Combined Hourly Design Rate	Maximum Number of Units
Primary Unit(s) (Primary Crusher)	600 tons per hour	1
Crusher(s) including primary crusher	2,600 tons per hour	6
Conveyor(s), Bin(s)	16,000 tons per hour	40
Screen(s)	2,400 tons per hour	6
Pugmill(s)	600 tons per hour	1
Wet Screen(s)	600 tons per hour	1
Diesel Engine(s)	1,500 horsepower	3

2. Generic Plant Equipment Identification Requirement
  - A. Within fifteen (15) days of actual startup, Norris Aggregates Product Company shall submit to the Air Pollution Control Program's (APCP) Permitting Section, and the Northeast Regional Office, the following information for the generic plant (PORT-0567):
    - 1.) A Master List of all equipment that will be permitted for use with the generic plant (PORT-0567). This master list shall include the following information for each piece of equipment. The manufacturer's name, the model number, the serial number, the actual MHDR, the date of manufacture, any company-assigned equipment number, and any other additional information such as sizes and/or dimensions that is necessary to uniquely identify all of the equipment.
    - 2.) A list of the core equipment that will always be utilized with the generic plant (PORT-0567). The core equipment associated with the generic plant shall include at least one (1) primary unit. Core equipment items are rate-controlling components of the process flow (e.g., primary crusher and/or primary screen). The maximum hourly design rate of the generic plant is defined to be the sum of the MHDR(s) of the core equipment. Any arrangement of the generic plant's equipment must be such that the core equipment is not bypassed in the process flow.
    - 3.) A determination on the applicability of 40 CFR Part 60, Subpart "OOO", *Standards of Performance for Nonmetallic Mineral Processing Plants*, for each piece of equipment. Norris Aggregates Product Company shall indicate whether or not each piece of equipment is subject to Subpart "OOO" and provide the justification for this applicability determination.
    - 4.) Norris Aggregates Product Company shall submit notification to the APCP and the Regional Office if the core equipment is changed and/or if new equipment is added to the supplemental equipment list.
  - B. To assure that each piece of equipment is properly identified as being a part of this generic Portable rock-crushing plant (PORT-0567), Norris Aggregates Product Company shall provide and maintain suitable, easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the APCP and the Regional Office no later than fifteen (15) days after start-up of the generic plant.
  - C. Norris Aggregates Product Company shall at all times maintain a list of the specific equipment currently being utilized with the generic Portable rock-crushing plant (PORT-0567). The installation

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**GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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shall immediately make this list of currently used equipment available to any Missouri Department of Natural Resources' personnel upon request.

3. Relocation of Portable Plant
  - A. If this portable generic rock-crushing plant moves from the initial site reviewed in this permit (Mercer Quarry, S21/22, T66N, R23W, Site ID: 129-P005), then the portable generic rock-crushing plant shall not be operated at any site location longer than 24 consecutive months without an intervening relocation.
  - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable generic rock-crushing plant.
    - 1) If the portable generic plant is moving to a site previously permitted, and if there are no other new plants at the site, then the application must be received by the Air Pollution Control Program at least seven (7) days prior to the relocation.
    - 2) If the portable generic plant is moving to a new site, or if there are other plants or equipment at the site that have not been evaluated for concurrent operation, then the application must be received by the Air Pollution Control Program at least twenty-one (21) days prior to the relocation. The application must include written notification of any concurrently operating plants.
4. Operating Permit Applicability

If this portable generic rock-crushing plant does not move from the initial site (Mercer Quarry, S21/22, T66N, R23W, Site ID: 129-P005) within 24 consecutive months, then Norris Aggregates Product Company shall submit an operating permit application. The Air Pollution Control Program must receive this application no later than 30 days after the exceedance of the 24 months.
5. Performance Testing for New Source Performance Standards (NSPS)
  - A. Norris Aggregates Product Company shall submit the enclosed testing plan to the Enforcement section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". Norris Aggregates Product Company shall contact the Enforcement section to obtain all requirements for testing, and the plan must be submitted to the Enforcement section at least 30 days prior to the proposed test date.
  - B. Testing must be performed no later than 60 days after achieving the maximum production rate of the process, and in any case no later than 180 days after initial startup. The performance test results shall be submitted to the Enforcement section no later than 30 days after completion of any required testing.
6. Reporting Requirement

The operator(s) shall report to the Air Pollution Control Program (APCP) Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.
7. Record Keeping Requirement

The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

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### **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 129-P005  
Site Name: Mercer Quarry  
Site Address: RR1, Princeton, MO 64673  
Site County: Mercer County, S21/22, T66N, R23W

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment A-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment A-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment A-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 003-0012  
Site Name: Amazonia Quarry  
Site Address: 9355 State Hwy F, Amazonia, MO 64421  
Site County: Andrew County, S18/19, T59N, R35W

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment B-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment B-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 50 tons of PM<sub>10</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment B-3, *Monthly PM<sub>10</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment B-4, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
5. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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6. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.
  - C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
7. **Restriction on the Use of Diesel Engine(s)**

The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
8. **Restriction on Process Configuration of Primary Emission Point(s)**

The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
9. **Restriction on Minimum Distance to Nearest Property Boundary**

The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.



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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 147-0029  
Site Name: Barnard Quarry  
Site Address: 36714 Jet Road, Barnard, MO 64424  
Site County: Nodaway County, S9/10, T62N, R35W

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment C-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment C-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NOx)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NOx into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment C-3, *Monthly NOx Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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Project No.	2006-06-092

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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Project No.	2006-06-092

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 081-0017  
Site Name: Bethany Quarry  
Site Address: 19365 Outer road, Bethany, MO 64424  
Site County: Harrison County (S1/2, T63N, R28W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment D-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment D-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment D-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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*American Society for Testing Materials (ASTM D-2216 or C-566), EPA AP-42 Appendix C.2, or other method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.*

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 025-0017  
Site Name: Braymer Quarry  
Site Address: 6500 Oliver Road, Cowgill, MO 64637  
Site County: Caldwell County (S24, T55N, R27W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment E-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment E-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment E-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 079-0030  
Site Name: Edingburg Quarry  
Site Address: Hwy 190 & Hwy 146, Trenton, MO 64683  
Site County: Grundy County, S15/16, T61N, R25W

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment F-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment F-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NOx)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NOx into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment E-3, *Monthly NOx Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.



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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 061-0003  
Site Name: Gallatin Quarry  
Site Address: 21901 State Hwy 13, Gallatin, MO 64640  
Site County: Daviess County (S32/33, T60N, R27W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment G-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment G-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NOx)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NOx into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment G-3, *Monthly NOx Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 147-0017  
Site Name: Gooden Quarry  
Site Address: 38139 230<sup>th</sup> Street, Ravenwood, MO 64479  
Site County: Nodaway County (S31/36, T65N, R34W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment H-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment H-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment H-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 081-0018  
Site Name: Jefferies Quarry  
Site Address: East Bayport Road, Blythdale, Mo 64426  
Site County: Harrison County (S3/4, T66N, R26W)

1. Best Management Practices  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment I-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment I-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. Annual Emission Limit of Nitrogen Oxides (NOx)
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NOx into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment I-3, *Monthly NOx Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. Usage of Wet Suppression Control System on Equipment
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. Moisture Content Testing of Storage Piles Requirement
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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*American Society for Testing Materials (ASTM D-2216 or C-566), EPA AP-42 Appendix C.2, or other method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.*

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 087-0002  
Site Name: Maitland Quarry  
Site Address: 34635 Holt 190, Maitland, MO 64466  
Site County: Holt County (S27/28, T62N, R37W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment J-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment J-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 50 tons of PM<sub>10</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment J-3, *Monthly PM<sub>10</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment J-4, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
5. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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6. Moisture Content Testing of Storage Piles Requirement
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.
  - C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
7. Restriction on the Use of Diesel Engine(s)

The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
8. Restriction on Process Configuration of Primary Emission Point(s)

The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
9. Restriction on Minimum Distance to Nearest Property Boundary

The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.



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### **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 087-P015  
Site Name: New Point Quarry  
Site Address: 23351 Hwy B, Oregon, MO 64473  
Site County: Holt County (S27/28, T61N, R37W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment K-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment K-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment K-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### **SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 061-0029  
Site Name: Pattonsburg Quarry  
Site Address: Route 3, Pattonsburg, MO 64670  
Site County: Daviess County (S17, T61N, R28W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment L-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment L-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment L-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 129-0003  
Site Name: Princeton Quarry  
Site Address: RR1, Princeton, MO 64673  
Site County: Mercer County (S34/35, T64N, R24W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment M-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment M-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment M-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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*American Society for Testing Materials (ASTM D-2216 or C-566), EPA AP-42 Appendix C.2, or other method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.*

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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Site ID No.: 061-0016  
Site Name: Route C Quarry  
Site Address: 16664 State Rt C, Pattonsburg, MO 64670  
Site County: Daviess County (S30, T61N, R28W)

1. Best Management Practices  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment N-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment N-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 50 tons of PM<sub>10</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment N-3, *Monthly PM<sub>10</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment N-4, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
5. Usage of Wet Suppression Control System on Equipment
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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6. Moisture Content Testing of Storage Piles Requirement
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.
  - C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
7. Restriction on the Use of Diesel Engine(s)

The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
8. Restriction on Process Configuration of Primary Emission Point(s)

The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
9. Restriction on Minimum Distance to Nearest Property Boundary

The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.



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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 079-0016  
Site Name: Trenton Quarry  
Site Address: 38 NW Hwy 146, Trenton, MO 64683  
Site County: Grundy County (S24, T61N, R25W)

1. **Best Management Practices**  
Norris Aggregates Product Company shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM<sub>10</sub>)**
  - A. The operator(s) for Norris Aggregates Product Company's rock-crushing plant (PORT-0567) shall ensure, while operating at this site, that the ambient impact of PM<sub>10</sub> at or beyond the nearest property boundary does not exceed 150 µg/m<sup>3</sup> in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
  - B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
  - C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. For Solitary Operation, use Attachment O-1, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Solitary Operation)*, or equivalent form(s) for this purpose. For Concurrent Operations when other plants are located at this site, use Attachment O-2, *Daily Ambient PM<sub>10</sub> Impact Tracking Record (Concurrent Operation)*, or other equivalent form(s) for this purpose.
3. **Annual Emission Limit of Nitrogen Oxides (NO<sub>x</sub>)**
  - A. The operator(s) shall ensure that Norris Aggregates Product Company's rock-crushing plant emits less than 40 tons of NO<sub>x</sub> into the atmosphere in any 12-month period.
  - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM<sub>10</sub>. Attachment O-3, *Monthly NO<sub>x</sub> Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.
4. **Usage of Wet Suppression Control System on Equipment**
  - A. Norris Aggregates Product Company shall install and operate wet spray devices to restrict the emission of particulate matter. These wet spray devices must be used to control fugitive emissions whenever these units are in operation. The wet spray devices shall be installed on the following units:
    - 1.) All Crushers
    - 2.) All Screens
  - B. Carryover control is given to all equipment directly following another equipment controlled by a spray bar. Norris Aggregates Product Company claimed that all conveyors have carryover control. Therefore, all conveyors shall be placed directly following another equipment controlled by a spray bar.
  - C. Watering may be suspended during periods of freezing conditions, when use of the wet spray devices may damage the equipment. During these conditions, the operator(s) shall adjust the production rate to control fugitive emissions from these units. The operator shall record a brief description of such events in a daily log.
5. **Moisture Content Testing of Storage Piles Requirement**
  - A. The moisture content of the stockpiled rock will reduce particulate emissions. Norris Aggregates Product Company claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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method(s) approved by the Director. Norris Aggregates Product Company provided documentation of testing. Testing shall be conducted for three consecutive years during the months of June through September, while the rock-crushing plant is active at this site. If the test results have been consistently greater than 1.5 wt% and there is no reported emission exceedances from the plant, then no further testing is required and this site shall be deemed to have met this condition on all subsequent permits. Verification of the results will be performed during a routine inspection. If the test results have been less than 1.5 wt% and/or there is substantial change in the emissions from the plant, then Norris Aggregates Product Company shall apply for a new construction permit to account for the revised information or operate a wet suppression system capable of maintaining visible emissions standards for each unit within 30 days.

- C. The operator shall obtain test samples from each storage pile (EP-06). The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at Norris Aggregates Product Company's main office.
6. **Restriction on the Use of Diesel Engine(s)**  
The diesel engine shall only operate while the plant is running. If the company wants to run the diesel engine while the plant is not in operation, a new permit review will be required.
7. **Restriction on Process Configuration of Primary Emission Point(s)**  
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Norris Aggregates Product Company has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP-01.1). Bypassing the primary emission point(s) for processing is prohibited.
8. **Restriction on Minimum Distance to Nearest Property Boundary**  
The primary emission point of the rock-crushing plant, which is the primary crusher (EP-01.1), shall be located at least 600 feet from the nearest property boundary whenever it is operating at this site.

# TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

## PROJECT DESCRIPTION

The portable rock-crushing plant will be moving from Iowa into Missouri and is considered a new plant for permitting purposes. The plant is permitted to operate at fifteen different sites in Missouri. These sites are located in Andrew, Nodaway, Harrison, Caldwell, Grundy, Daviess, Holt, and Mercer Counties. These counties are attainment areas for all criteria air pollutants.

This permit allows PORT-0567 to operate concurrently at these sites with other asphalt, concrete, or rock-crushing plant(s), but only if the plant(s) have been limited in their permits to a combined ambient impact of 40.05  $\mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  or less. For compliance tracking purposes, PORT-0567 shall record the identity of the concurrently operating plant(s). If any emissions-related violations occur on days that the companies are operating concurrently, all companies will be held responsible. It is, therefore, recommended that all companies communicate daily and a daily communications log may be helpful in demonstrating compliance.

Rock, composed of non-metallic minerals, is drilled/blasted, loaded into haul trucks, and transported to processing. Rock is processed through feeder(s), crusher(s), screen(s), conveyor(s), and bin(s). The rock-crushing plant is a Generic Plant. Rock is processed through no more than 6 crushers, 6 screens, 1 pug mill, 1 wet screen, and 40 conveyors/bins. Processing equipment is powered with diesel engine(s). The emission points are listed in the attached spreadsheet summary. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

## EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is  $\text{PM}_{10}$  and  $\text{NO}_x$ . The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section "Permit Documents". Based on the conditioned potential emissions, the operation is considered a minor source under 10 CSR 10-6.060 section (6).

The rock-crushing plant has an emission limit of less than 50 tons of  $\text{PM}_{10}$  in any 12-month period. Based on ambient impact analysis, only plant operations at Amazonia, Maitland, and Route C Quarries have the conditioned potential to emit more than 50 tons of  $\text{PM}_{10}$  in any 12-month period. At these Quarries, Norris Aggregates Product Co. will be required to track its monthly  $\text{PM}_{10}$  emissions with a tracking sheet to keep its  $\text{PM}_{10}$  emissions below 50 tons in any 12-month period. A composite  $\text{PM}_{10}$  emission factor was developed and is incorporated into the monthly record keeping tables for each quarry. No  $\text{PM}_{10}$  emissions record keeping is required for the other quarries because the conditioned potentials of the plant at these quarries are below 50 tons for any consecutive 12-month period. If the conditioned potential emissions of  $\text{PM}_{10}$  were 50 tons per year or greater, then the owner would be required to submit dispersion modeling results.

The rock-crushing plant has an emission limit of less than 40 tons of  $\text{NO}_x$  in any 12-month period. The plant has the conditioned potential to emit more than 40 tons of  $\text{NO}_x$  in any 12-month period at all sites. Therefore, the plant will be required to keep record of its monthly  $\text{NO}_x$  emissions at all sites to keep  $\text{NO}_x$  emissions below 40 tons in any 12-month period. Since this is a generic permit, the rock-crushing plant is allowed to use any combination of diesel engine(s) that add up to 1500 in horsepower. However, different size diesel engine(s) have different emission factors. The  $\text{NO}_x$  emission factor for a diesel engine with horsepower less than 600 is different than the  $\text{NO}_x$  emission factor for a diesel engine with horsepower greater than 600. Therefore, two different emission factors are given for record keeping purposes. 0.0581 lbs/ton shall be used when the plant is using diesel engine(s) with horsepower greater than 600, and 0.0801 lbs/ton shall be used when the plant is using diesel engine(s) with horsepower less than 600. If a combination is used, then 0.0801 lbs/ton shall be used to keep track of  $\text{NO}_x$  emissions based on worst case scenario.

**Table 1: Emissions Summary (tons per year)**

Air Pollutant	Regulatory De Minimis Levels	Sites	Existing Potential Emissions	Potential Emissions of the Application	*New Installation Conditioned Potential	Emission Factor (lb/ton)
$\text{PM}_{10}$	15.0	Mercer	70.96	70.96	N/A	N/A

PM <sub>10</sub>	15.0	Amazonia	98.84	98.84	<50	0.0376
PM <sub>10</sub>	15.0	Barnard	57.61	57.61	N/A	N/A
PM <sub>10</sub>	15.0	Bethany	72.69	72.69	N/A	N/A
PM <sub>10</sub>	15.0	Braymer	54.44	54.44	N/A	N/A
PM <sub>10</sub>	15.0	Edinburg	65.65	65.65	N/A	N/A
PM <sub>10</sub>	15.0	Gallatin	55.00	55.00	N/A	N/A
PM <sub>10</sub>	15.0	Gooden	71.39	71.39	N/A	N/A
PM <sub>10</sub>	15.0	Jefferies	74.74	74.74	N/A	N/A
PM <sub>10</sub>	15.0	Maitland	123.78	123.78	<50	0.0471
PM <sub>10</sub>	15.0	New Point	64.41	64.41	N/A	N/A
PM <sub>10</sub>	15.0	Pattonsburg	60.08	60.08	N/A	N/A
PM <sub>10</sub>	15.0	Princeton	78.83	78.83	N/A	NA
PM <sub>10</sub>	15.0	Route C	98.78	98.78	<50	0.0376
PM <sub>10</sub>	15.0	Trenton	82.05	82.05	N/A	N/A
SOx	40.0	All	19.29	19.29	5.05	N/A
NOx	40.0	All	152.79	152.79/210.56**	<40	0.0581/0.0801***
VOC	40.0	All	3.91	17.19	3.27	N/A
CO	100.0	All	40.58	45.36	10.63	N/A
HAPs	10.0/25.0	All	0.08	0.19	0.04	N/A

Note: N/A = Not Applicable

\* PM<sub>10</sub> conditioned potential for Amazonia, Maitland, and Route C Quarries based on limit in permit conditions. PM<sub>10</sub> conditioned potential for all other sites are below 50 and labeled N/A. NOx conditioned potential based on limit in permit conditions. SOx, VOC, CO, and HAPS conditioned potential evaluated using worst case scenario based on diesel engine size and proportionally reduced based on NOx limit.

\*\*NOx conditioned potential of 152.79 tons per year based on diesel engine(s) with horsepower greater than 600. NOx conditioned potential of 210.56 tons per year based on diesel engine(s) with horsepower less than 600. If a combination of diesel engine(s) is used, the conditioned potential will be between these two values.

\*\*\*NOx emission factor of 0.0581 lbs/ton based on diesel engine(s) with horsepower greater than 600. NOx emission factor of 0.0801 lbs/ton based on diesel engine(s) with horsepower less than 600. If a combination of diesel engine(s) is used, 0.0801 lbs/ton shall be used to track NOx emissions based on worst case scenario.

## **AMBIENT AIR QUALITY IMPACT ANALYSIS**

Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 600 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m<sup>3</sup> of PM<sub>10</sub> at or beyond the nearest property boundary in any single 24-hour period. For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m<sup>3</sup> of PM<sub>10</sub>. To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130 µg/m<sup>3</sup> of PM<sub>10</sub> at or beyond the nearest property boundary.

Screening tools were used to develop an ambient impact factor for the rock-crushing plant at each site. All sites were evaluated at a distance of 600 feet. The only difference at each site is the haul road distance, which will not affect the ambient impact analysis because of the use of Best Management Practices. Therefore, the ambient impact at each site should be the same and the ambient impact factor for each site should be the same as well. This ambient impact factor is incorporated into the daily record keeping tables for each site.

This permit allows for two (2) operating scenarios: Scenario 1 for solitary operation and Scenario 2 for concurrent operation with other plants located at this site. The ambient impact from solitary operation shall be limited to less than 130 µg/m<sup>3</sup> of PM<sub>10</sub> or less at or beyond the nearest property boundary in any single 24-hour period. For Scenario 2, Norris Aggregates Product Company will decrease its daily production in order to allow other installations to operate concurrently at this site. The ambient impact under Scenario 2 for PORT-0567 shall be less than 89.95 µg/m<sup>3</sup> of PM<sub>10</sub> at or beyond the nearest property boundary in any single 24-hour period.

**Table 2: Ambient Air Quality Impact Analysis of PM<sub>10</sub>, 24-Hour Averaging Time**

Operation	Ambient Impact Factor (µg/m <sup>3</sup> ton)	Modeled Impact (µg/m <sup>3</sup> )	*Background (µg/m <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )	Daily Production Limit (tons)
1. Solitary	0.0157	130.00	20.00	150.00	8,275
2. Concurrent	0.0126	89.95	60.05	150.00	7,160

\* Background PM<sub>10</sub> level of 20.00 µg/m<sup>3</sup> from haul roads and stockpiles and 40.05 µg/m<sup>3</sup> from the operation of other asphalt, concrete, or rock-crushing plants.

### **APPLICABLE REQUIREMENTS**

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- If this portable rock-crushing plant remains at the initial site reviewed in this permit longer than 24 consecutive months, then the owner shall submit an Operating Permit Application. The Air Pollution Control Program must receive this application no later than 30 days after the exceedance of 24 months.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- 40 CFR Part 60 Subpart "OOO", *Standards of Performance for Nonmetallic Mineral Processing Plants*, of the New Source Performance Standards (NSPS)
- 40 CFR Part 60 Subpart "Kb", *Standards for Performance for Volatile Organic Liquid Storage Vessels*, of the New Source Performance Standards (NSPS)
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

### **STAFF RECOMMENDATION**

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

\_\_\_\_\_  
Chia-Wei Young  
Environmental Engineer

\_\_\_\_\_  
Date

### **PERMIT DOCUMENTS**

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Norris Aggregates Product Company as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition*.
- Noyes Data Corp. book, Orlemann, et al.1983, *Fugitive Dust Control*.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Northeast Regional Office Site Survey.
- Best Management Practices.



























































































**Attachment M-3: Monthly NOx Emissions Tracking Record  
Norris Aggregates Product Company, PORT-0567 – Generic Rock-crushing Plant**

Project Number: 2006-06-092  
 Quarry Name: Princeton Quarry  
 County, CSTR: Mercer County (S34/35, T64N, R24W)  
 Primary Unit Size: 600 tph  
 Distance to Nearest Property Boundary: 600 feet

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year)  
 (Copy this sheet as needed.)

Month	Diesel Engine Design Rate (HP)	Monthly Production (tons)	<sup>1</sup> Composite NOx Emission Factor (lbs/ton)	<sup>2</sup> Monthly NOx Emissions (lbs)	<sup>3</sup> Monthly NOx Emissions (tons)	<sup>4</sup> 12-Month NOx Emissions (tons/year)
			0.0581/0.0801			
			0.0581/0.0801			
			0.0581/0.0801			
			0.0581/0.0801			
			0.0581/0.0801			
			0.0581/0.0801			
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			0.0581/0.0801			
			0.0581/0.0801			

Note 1: 0.0581 lbs/ton shall be used when using diesel engine(s) with horsepower greater than 600. 0.0801 lbs/ton shall be used when using diesel engine(s) with horsepower less than 600. If a combination of diesel engines is used, 0.0801 lbs/ton shall be used to evaluate NOx emissions for worst case analysis.

Note 2: The Monthly Emissions (lbs) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton).

Note 3: The Monthly Emissions (tons) are calculated by dividing the Monthly Emissions (lbs) by 2,000.

Note 4: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than 40 tons in any consecutive 12-month period indicates compliance.

















## Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

### For Haul Roads:

#### Pavement of Road Surfaces –

- A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions<sup>1</sup>” while the plant is operating.
- B. Maintenance and/or 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(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

#### Usage of Chemical Dust Suppressants –

- A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
- B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator(s) 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(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

#### Usage of Documented Watering –

- A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
- B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
- C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
- D. 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. The operator(s) shall record a brief description of such events in the same log as the documented watering.
- E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

<sup>1</sup> For 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.)

**For Vehicle Activity Areas around Open Storage Piles:**1. Pavement of Stockpile Vehicle Activity Surfaces –

- A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
- B. Maintenance and/or 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(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

Usage of Chemical Dust Suppressants –

- A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
- B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator(s) 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(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Usage of Documented Watering –

- A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
- B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
- C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
- D. 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. The operator(s) shall record a brief description of such events in the same log as the documented watering.
- E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Jackie Sisk  
Production Manager  
Norris Aggregates Product Company  
P. O. Box 190  
Cameron, MO 64429

RE: New Source Review Permit - Project Number: 2006-06-092

Dear Mr. Sisk:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions, if any, and the requirements in your permit. Operation in accordance with the conditions and requirements in your permit and the New Source Review application submitted for project 2006-06-092 is necessary for continued compliance.

The section of the permit entitled "Technical Review of Application for Authority to Construct" should not be separated from the main portion of your permit. The entire permit must be retained in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall Hale, P.E.  
New Source Review Unit Chief

KH: cwy l

Enclosures

c: Northeast Regional Office  
PAMS File 2006-06-092

Permit Number: