Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Michael L. Parson, Governor
Carol S. Comer, Director

FEB 05 2020

Mr. Brent Whitwell
Materials Manager
Indian Creek Materials, LLC-PORT-0788
2516 County Road 4300
West Plains, Missouri 65775

RE: New Source Review- Permit Number:
Project Number: 2019-12-007; Installation Number: PORT-0788

Dear Mr. Whitwell:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit application is necessary for continued compliance. In addition, please note that Indian Creek Materials, LLC-PORT-0788 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs. Please refer to the permits of any plant that you are operating with to see if their respective permits contain an ambient impact limit. 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: http://dnr.mo.gov/regions/. The online CAV request can be found at http://dnr.mo.gov/cav/compliance.htm.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission,

whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions, please do not hesitate to contact Russell Osborne, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:roa

Enclosures

c: Southeast Regional Office
PAMS File: 2019-12-007

Permit Number: 022020-001

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

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: 022020-001

Project Number: 2019-12-007
Installation ID: PORT-0788

Parent Company: Indian Creek Materials, LLC

Parent Company Address: 1620 Woodson Road, St. Louis, Missouri 63114

Installation Name: Indian Creek Materials, LLC PORT-0788

Installation Address: 1760 State Highway AM, Willow Springs, Missouri 65793

Location Information: Howell County, S15, T27N, R10W

Application for Authority to Construct was made for:
The removal of generic permit provisions, addition of equipment, and the replacement of the primary rock crusher. This review was conducted in accordance with Section (5), 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 are applicable to this permit.

Director or Designee
Department of Natural Resources

FEB 05 2020

Effective Date

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DEPARTMENT OF
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_____
Director or Designee
Department of Natural Resources

_____
Effective Date

STANDARD CONDITIONS:

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 Enforcement and Compliance Section of 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. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant sources(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's 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 the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(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 Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

Contact Information:
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:
http://dnr.mo.gov/regions/

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 to the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (3)(E). "Conditions required by permitting authority."

1. Superseding Condition
   The Special Conditions of this permit supersede all General Special Conditions found in the previously issued Construction Permit 072019-013 from the Air Pollution Control Program.

2. Equipment Identification Requirement
   Indian Creek Materials, LLC-PORT-0788 shall maintain easily read permanent markings on each component of the plant as listed in Table 1. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component.

   Table 1: Equipment list of PORT-0788:

Emission Point	Equipment Description	MHDR
EP-01	Grizzly/feeder	350 tph
EP-02	Primary Crusher	350 tph
EP-03	Conveyor (2)	350 tph
EP-04	Screen	350 tph
EP-05	Screen conveyors (3)	350 tph
EP-06	Stackers (4)	350 tph
EP-07a	Load-in	350 tph
EP-07b	Load-out	350 tph
EP-07c	Vehicular Activity	0.7 VMT
EP-07d	Wind Erosion	0.5 Acres
EP-08	Pit Haul Road (50 feet)	1.4 VMT
EP-09	Shipping Haul Road (2,400 feet)	30.3 VMT
EP-10	Secondary Crusher	300 tph
EP-11	Finish Screen	300 tph
EP-12	Secondary Crusher Conveyors (2)	300 tph
EP-13	Finish Screen Conveyors (3)	300 tph

3. Performance Testing for New Source Performance Standards (NSPS)
   A. Indian Creek Materials, LLC-PORT-0788 shall submit the enclosed testing plan to the Compliance / Enforcement Section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". Indian Creek Materials, LLC-PORT-0788 shall contact the Compliance / 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

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

startup. The performance test results shall be submitted to the Enforcement Section via email at stacktesting@dnr.mo.gov no later than 30 days after completion of any required testing.

1) Indian Creek Materials, LLC-PORT-0788 shall notify the Air Pollution Control Program's Permitting Section and the Southeast Regional Office when new equipment is added to the master list and when core equipment is changed within 30 days of the change.

4. Relocation of Portable Rock Crushing Plant

A. Indian Creek Materials, LLC-PORT-0788 shall not be operated at any location longer than 24 consecutive months except; if site specific conditions of this portable plant contains a nonroad engine requirement limiting to 12 consecutive months.

B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock crushing plant.

1) If the portable rock crushing plant is moving to a site previously permitted, and if the circumstances at the site have not changed, the Air Pollution Control Program must receive then the application at least seven days prior to the relocation.

2) If the portable rock crushing plant is moving to a new site, or if circumstances at the site have changed, then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.

5. Record Keeping Requirement

Indian Creek Materials, LLC-PORT-0788 shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

6. Reporting Requirement

Indian Creek Materials, LLC-PORT-0788 shall report to the Air Pollution Control Program Compliance/Enforcement Section by mail at P.O. Box 176, Jefferson City, MO 65102 or by e-mail at AirComplianceReporting@dnr.mo.gov, no later than 10 days after any exceedances of the limitations imposed by this permit.

SITE SPECIFIC 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) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (3)(E). "Conditions required by permitting authority."

PORT ID Number: PORT-0788
Site ID Number: 091-0073
Site Name: AM Quarry
Site Address: State Highway AM, Willow Spring, MO 65793
Site County: Howell S15, T27N, R10W

1. Superseding Condition
   The conditions of this permit supersede all Site Specific Special Conditions found in the previously issued construction permit 072019-013 from the Air Pollution Control Program.

2. Best Management Practices Requirement
   Indian Creek Materials, LLC-PORT-0788 shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.

3. Annual Emission Limit
   A. Indian Creek Materials, LLC-PORT-0788 shall emit less than 15.0 tons of PM_{10} in any 12-month period from the entire installation, which consists of the equipment listed in Table 1. The SSM emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown, and Malfunction Conditions* shall be included in the limit.

   B. Indian Creek Materials, LLC-PORT-0788 shall demonstrate compliance with Special Condition 3.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

4. Moisture Content Testing Requirement
   A. Indian Creek Materials, LLC-PORT-0788 shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent by weight.

   B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.

SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.

D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).

E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Indian Creek Materials, LLC-PORT-0788 main office within 30 days of completion of the required test.

F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 4.A, another test may be performed within 15 days of the noncompliant test. If the results of that test is less than the moisture content in Special Condition 4.A, Indian Creek Materials, LLC-PORT-0788 shall either:
   1) Apply for a new permit to account for the revised information, or
   2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. Plans may be sent by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at aircompliancereporting@dnr.mo.gov. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.

G. In lieu of testing, Indian Creek Materials, LLC-PORT-0788 may obtain test results that demonstrate compliance with the moisture content in Special Condition 4.A from the supplier of the aggregate.

5. Primary Equipment Requirement
Indian Creek Materials, LLC-PORT-0788 shall process all rock through the primary crusher (EU-02). Bypassing the primary crusher is prohibited.

6. Nonroad Engine Requirement
Indian Creek Materials, LLC-PORT-0788 engine shall not remain at one location within this site longer than 12 consecutive months in order for the engines to meet the definition of a nonroad engine as stated in 40 CFR 89.2. These engines shall be moved with its associated equipment at least once every 12 consecutive months at this site.

7. Record Keeping Requirement
Indian Creek Materials, LLC-PORT-0788 shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources' personnel upon request.

SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

8. Reporting Requirement
Indian Creek Materials, LLC-PORT-0788 shall report to the Air Pollution Control Program, Compliance / Enforcement Section by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, no later than 10 days after any exceedances of the limitations imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2019-12-007
Installation ID Number: PORT-0788
Permit Number:

Indian Creek Materials, LLC-PORT-0788: Complete: December 20, 2019
State Highway AM
Willow Springs, Missouri 65793

Parent Company:
Indian Creek Materials, LLC
1620 Watson Rd.
St. Louis, Missouri 63114

Howell County, S15, T27N, R10W

PROJECT DESCRIPTION

Indian Creek Materials, LLC PORT-0788 at the AM Quarry, located in Howell County, initially consisted of a primary crusher, primary crusher conveyor, a scalping screen, 2 scalping screen conveyors, and 2 stackers. The original permit was a generic permit while performance of the existing equipment was evaluated. Upon completed evaluation, modifications were made to the plant.

The original McCloskey Model 154v3 crusher, rated at 500 tons per hour, was replaced with a Sandvik Model QJ341 jaw crusher, rated at 350 tons per hour. The McCloskey Model R155 screen was replaced using the same model with serial number 75563.

Added to the process was a secondary crusher, two stackers, a finish screen, and three conveyors. The secondary crusher is a Sandvik Model QH441 cone crusher, serial number QH441-10021, rated at 300 tons per hour. One of the two new stackers is a McCloskey Model ST80, serial number 89379, while the other is a McCloskey Model ST65, serial number 90153. The finish screen is a McCloskey Model 5190, serial number 75563, with three attached side conveyors. The finish screen and associated conveyors were evaluated with a maximum hourly design rate of 300 tons per hour; the secondary crusher is the bottleneck for the finish screen and associated conveyor.

The engines onsite are designated as nonroad engines per 40 CFR 89.2. Powering the primary crusher is a Caterpillar 350 hp diesel engine manufactured in 2019. The secondary cone crusher is powered by a Caterpillar 440 hp diesel engine manufactured in 2019. A Caterpillar 130 hp diesel engine manufactured in 2019 powers the scalping screen. Powering the finish screen is a Caterpillar 130 hp diesel engine manufactured in 2019. A 60 hp Caterpillar diesel engine and a 60 hp Kubota engine, both manufactured in 2019, power the stackers and stacker conveyors.

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

This installation is located in Howell County, an attainment/unclassifiable area for all criteria pollutants status.

This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

There are two generic stationary crushers at AM Quarry permitted under Permits #102013-012 and #092016-010.

TABLES

The following permits have been issued to Indian Creek Materials, LLC PORT-0788 from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
072019-013	Portable Rock Crushing Plant (500 tph)

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. There have been no actual emissions reported since this portable plant was recently put into operation. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with a voluntary annual PM_{10} *de minimis* emission limit.

Table 3: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	[a]Potential Emissions of Process Equipment	Existing Actual Emissions	[b]Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	10.69	N/A	138.56	44.55
PM_{10}	15.0	3.98	N/A	46.66	15.00
$PM_{2.5}$	10.0	0.52	N/A	10.20	3.28
SO_X	40.0	N/A	N/A	N/A	N/A
NO_X	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A
Total HAPs	25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable; N/D = Not Determined

[a]Excludes haul road and storage pile emissions

[b]Includes site specific haul road and storage pile emissions

EMISSIONS CALCULATIONS

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

Emissions from the rock-crushing equipment:

- Calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004.
- The controlled emission factors were used because the inherent moisture content of the crushed rock is greater than 1.5 % by weight.

Emissions from aggregate handling:

- Calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004.
- The controlled emission factors were used because the inherent moisture content of the crushed rock is greater than 1.5% by weight.

Emissions from haul roads and vehicular activity areas:

- Calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006.
- A 90% control efficiency for PM and PM_{10} and a 74% control efficiency for $PM_{2.5}$ were applied to the emission calculations for the use of BMPs.

Emissions from storage piles:

- Load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4.
- The moisture content of the aggregate is less than 1.5% by weight.
- Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM_{10} are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels but remain below major levels.

APPLICABLE REQUIREMENTS

Indian Creek Materials, LLC-PORT-0788 shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information,* 10 CSR 10-6.110.

- No Operating Permit is required because this plant is portable.

- *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 10-6.165

SPECIFIC REQUIREMENTS

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAP) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT) apply to the proposed equipment.

- New Source Performance Standard (NSPS), 40 CFR 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 2, 2019, received December 9, 2019, designating Indian Creek Materials, LLC as the owner and operator of PORT-0788.

Attachment A: PM_{10} 12-Month Rolling Total Emissions Tracking Sheet

Indian Creek Materials, LLC PORT-0788
Project Number: 2019-12-007
Permit Number:

This sheet covers the period from ____________________ to ____________________ (Copy as needed)
(Month, Day Year) (Month, Day Year)

Month	Production (tons)	PM_{10} Composite Emission Factor (lb/ton)	Monthly PM_{10}Emissions[1] (lbs)	Startup, Shutdown and Malfunction PM_{10} Emissions[2] (lbs)	Monthly PM_{10}Emissions[3] (tons)	12-Month Rolling Total Emissions[4] (tons)
Example	*75,000*	*0.0304*	*2,280*	*0.0*	*1.14*	*1.14 + previous 11 months*
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[1]Multiply the monthly production by the PM_{10} composite emission factor.
[2]As reported to the Air Pollution Control Program's Compliance/Enforcement Section according to the provisions of 10 CSR 10-6.050 for the month.
[3]Add the monthly PM_{10} emissions plus the SSM emissions from the same time period and divide by 2000 and
[4]Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 15.0 tons of PM_{10} per consecutive 12 months is necessary for compliance.

Attachment AA: Best Management Practices

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

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

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

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

APPENDIX A

Abbreviations and Acronyms

% ..... percent
ºF ..... degrees Fahrenheit
acfm ..... actual cubic feet per minute
BACT ..... Best Available Control Technology
BMPs ..... Best Management Practices
Btu ..... British thermal unit
CAM ..... Compliance Assurance Monitoring
CAS ..... Chemical Abstracts Service
CEMS ..... Continuous Emission Monitor System
CFR ..... Code of Federal Regulations
CO ..... carbon monoxide
CO_2 ..... carbon dioxide
CO_2e ..... carbon dioxide equivalent
COMS ..... Continuous Opacity Monitoring System
CSR ..... Code of State Regulations
dscf ..... dry standard cubic feet
EIQ ..... Emission Inventory Questionnaire
EP ..... Emission Point
EPA ..... Environmental Protection Agency
EU ..... Emission Unit
fps ..... feet per second
ft ..... feet
GACT ..... Generally Available Control Technology
GHG ..... Greenhouse Gas
gpm ..... gallons per minute
gr ..... grains
GWP ..... Global Warming Potential
HAP ..... Hazardous Air Pollutant
hr ..... hour
hp ..... horsepower
lb ..... pound
lbs/hr ..... pounds per hour
MACT ..... Maximum Achievable Control Technology
µg/m^3 ..... micrograms per cubic meter
m/s ..... meters per second
Mgal ..... 1,000 gallons
MW ..... megawatt
MHDR ..... maximum hourly design rate
MMBtu ..... Million British thermal units
MMCF ..... million cubic feet
MSDS ..... Material Safety Data Sheet
NAAQS ..... National Ambient Air Quality Standards
NESHAPs ..... National Emissions Standards for Hazardous Air Pollutants
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standards
NSR ..... New Source Review
PM ..... particulate matter
$PM_{2.5}$ ..... particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10} ..... particulate matter less than 10 microns in aerodynamic diameter
ppm ..... parts per million
PSD Prevention of Significant Deterioration
PTE ..... potential to emit
RACT ..... Reasonable Available Control Technology
RAL ..... Risk Assessment Level
SCC ..... Source Classification Code
scfm ..... standard cubic feet per minute
SDS ..... Safety Data Sheet
SIC ..... Standard Industrial Classification
SIP ..... State Implementation Plan
SMAL ..... Screening Model Action Levels
SO_x ..... sulfur oxides
SO_2 ..... sulfur dioxide
SSM ..... startup, shutdown, & malfunction
tph ..... tons per hour
tpy ..... tons per year
VMT ..... vehicle miles traveled
VOC ..... Volatile Organic Compound