

STATE OF 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: **06 2 0 1 6 - 0 0 4**

Project Number: 2016-01-047
Installation ID: PORT-0732

Parent Company: Gillespie Excavating Co., LLC

Parent Company Address: 2068 North Farm Road 227, Strafford, MO 65757

Installation Name: Gillespie Excavating Co., LLC

Installation Address: Near 5655 & 5841 State Highway OO, Strafford, MO 65757

Location Information: Greene County (S6, T29N, R20W)

Application for Authority to Construct was made for:

The construction of a new portable crushing plant. 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 are applicable to this permit.

Handwritten signature of Ryan Schott in black ink.

Prepared by
Ryan Schott
New Source Review Unit

Handwritten signature of Kendall B. Halo in black ink.

Director or Designee
Department of Natural Resources
JUN 06 2016

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 startup of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. 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 startup of this (these) air contaminant source(s). The regional office information can be found at the following website: <http://dnr.mo.gov/regions/>.

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 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 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 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

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) 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 (12)(A)10. "Conditions required by permitting authority."

1. Generic Plant Designation and Maximum Combined Hourly Design Rate
Gillespie Excavating Co., LLC has been designated to be a Generic Plant Operation. The combined MHDR each of the following generic equipment types shall not exceed the rates and numbers listed in Table 1.

Table 1: Generic Equipment

Equipment Type	MHDR	Maximum Number of Units
Primary Unit (Primary Crusher)	450 tons per hour	1
Hopper/Feeder	450 tons per hour	1
Conveyors	2,250 tons per hour	5
Screens	900 tons per hour	2

2. Generic Plant Equipment Identification Requirement
 - A. Gillespie Excavating Co., LLC shall submit the following information to the Air Pollution Control Program's Permitting Section and the Southwest Regional Office within 15 days of actual startup.
 - 1) A master list of all equipment that will be permitted for use with the generic plant. This master list shall include at minimum the following information for each piece of equipment:
 - a) Manufacturer's name
 - b) Model number
 - c) Serial number
 - d) Actual MHDR
 - e) Date of manufacture
 - f) Any other additional information that is necessary to uniquely identify the equipment.
 - 2) A list of the core equipment that will always be utilized with the generic plant. The core equipment associated with the generic plant shall include at least one primary unit that controls the rate of the process flow (e.g., a primary crusher or primary screen).
 - 3) A determination of the applicability of 40 CFR Part 60, Subpart OOO – *Standards of Performance for Nonmetallic Mineral Processing Plants* for each piece of equipment indicating whether each piece of equipment is subject to Subpart OOO and justification for this determination.

GENERAL SPECIAL CONDITIONS:

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

- 4) Gillespie Excavating Co., LLC shall notify the Air Pollution Control Program's Permitting Section and the Southwest Regional Office when new equipment is added to the master list and when core equipment is changed within 30 days of the change.
 - B. Gillespie Excavating Co., LLC shall maintain a list of the specific equipment currently being utilized with the generic plant. Any arrangement of the generic plant's equipment must be such that the core equipment is not bypassed in the process flow.
3. Equipment Identification Requirement
Gillespie Excavating Co., LLC shall maintain 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.
4. Relocation of Portable Rock Crushing Plant
 - A. Gillespie Excavating Co., LLC shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0732, contain a nonroad engine requirement limiting the portable plant at the site specific location to 12 consecutive months.
 - B. A notification of relocation must be submitted to the Missouri Department of Natural Resources Regional Office that is associated with the location of PORT-0732 prior to any relocation of this portable rock crushing plant. A list of regional offices can be found at: <http://www.dnr.mo.gov/regionas/ro-map-color.pdf>.
 - 1) If the portable rock crushing plant is moving to a previous site or to a new site, and if compliance with the site specific special conditions will be maintained, then the notification must be received by the Regional Office at least 7 days prior to the relocation.
 - 2) If the portable rock crushing plant is moving to a previous site or to a new site, and if circumstances at the site have changed, then a "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program at least 21 days prior to any relocation of this portable rock crushing plant. The application must include written notification of any concurrently operating plants.
 - C. Gillespie Excavating Co., LLC shall contact the appropriate local agency prior to relocating PORT-0732 into their jurisdiction to see if any additional requirements apply. A list of local agencies and their phone numbers is below:
 - 1) St. Louis County (314) 615-5000
 - 2) Kansas City Metro Area (816) 513-6314

GENERAL SPECIAL CONDITIONS:

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

5. Plant Location Record
 - A. Gillespie Excavating Co., LLC shall keep a record of the duration and location of each project performed by PORT-0732.
 - B. Gillespie Excavating CO., LLC shall demonstrate compliance with Special Condition 5.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

6. Crushing Limitation
 - A. Gillespie Excavating Co., LLC shall crush no more than 700,000 tons of material at any one site during the time it is located there. PORT-0732 may return to a previous site and operate, as long as the total amount of material crushed at that site remains below 700,000 tons in any consecutive 12-month period.

 - B. Gillespie Excavating Co., LLC shall demonstrate compliance with Special Condition 6.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

7. Record Keeping Requirement
Gillespie Excavating Co., LLC 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.

8. Reporting Requirement
Gillespie Excavating Co., LLC shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, 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 (12)(A)10. "Conditions required by permitting authority."

1. Undocumented Watering Requirement
Gillespie Excavating Co., LLC shall apply a water spray on all haul roads and vehicular activity areas whenever conditions exist that would allow visible emissions from these sources to leave the property.
2. Moisture Content Testing Requirement
 - A. Gillespie Excavating Co., LLC shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent by weight.
 - B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.
 - C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
 - D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
 - E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Gillespie Excavating Co., LLC 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 2.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 2.A, Gillespie Excavating Co., LLC shall either:
 - 1) Apply for a new permit to account for the revised information, or
 - 2) Submit a plan for the installation of wet spray devices to the Compliance/ Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.

SITE SPECIFIC SPECIAL CONDITIONS:

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

- G. In lieu of testing, Gillespie Excavating Co., LLC may obtain test results that demonstrate compliance with the moisture content in Special Condition 2.A from the supplier of the aggregate.

- 3. Maximum Length of Haul Roads
The total length of all haul roads at any site shall be less than 500 feet.

- 4. Primary Equipment Requirement
Gillespie Excavating Co., LLC shall process all rock through the primary crusher (EU-3). Bypassing the primary crusher is prohibited.

- 5. Nonroad Engine Requirement
Gillespie Excavating Co., LLC's engine shall not remain at one location within any site longer than 12 consecutive months in order for the 475 horsepower diesel engine to meet the definition of a nonroad engine as stated in 40 CFR 89.2. This engine shall be moved with its associated equipment at least once every 12 consecutive months at each site.

- 6. Record Keeping Requirement
Gillespie Excavating Co., LLC 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.

- 7. Reporting Requirement
Gillespie Excavating Co., LLC shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, 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 (6) REVIEW

Project Number: 2016-01-047

Installation ID Number: PORT-0732

Permit Number:

Gillespie Excavating Co., LLC
Near 5655 & 5841 East State Highway OO
Strafford, MO 65757

Complete: February 11, 2016

Parent Company:
Gillespie Excavating Co., LLC
2068 North Farm Road 227
Strafford, MO 65757
Greene County (S6, T29N, R20W)

PROJECT DESCRIPTION

Gillespie Excavating Co., LLC is proposing to construct a new portable crushing plant (PORT-0732). The plant is a Kleemann Mobile Crusher MR 130ZS, rated at 450 tons per hour. The track-mounted plant consists of a hopper, a pre-screen, an impact crusher, a final screen, and five conveyors all attached to one chassis. The plant is powered by a Caterpillar C-13 475 horsepower diesel engine, which meets the definition of a nonroad engine, as listed in 40 CFR 89.2.

PORT-0732 will be used to crush concrete and masonry block rubble from demolition projects. At the initially permitted Stafford site, the aggregate will be hauled on-site, stockpiled, and crushed to a useable product (e.g. backfill); otherwise, PORT-0732 will relocate to other demolition sites to crush concrete and masonry block rubble already on-site. Gillespie Excavating Co., LLC estimates that PORT-0732 will only remain at each demolition site for a few weeks, crush relatively minimal amounts of aggregate, and relocate frequently. Because of the rapid relocation and minimal crushing operations at each site, Gillespie Excavating Co., LLC has been allowed to operate at various demolition sites under the same site specific special conditions, as long as compliance is maintained for all conditions and annual PM₁₀ emissions remain (indirectly limited) below the de minimis level. These multi-site specific special conditions allow PORT-0732 to freely relocate and operate at multiple sites without having to submit a "Portable Source Relocation Request" application each time, while operating under stricter emission limits. The site specific special conditions were imposed as the maximum parameters that would cause PORT-0732 to have the highest allowable emissions at any possible site. So long as these conditions are maintained, PORT-0732 will not exceed any emission thresholds at any potential operating sites.

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 Greene County, which is an attainment area for all criteria pollutants. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2]. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

No permits have previously been issued to Gillespie Excavating Co., LLC from the Air Pollution Control Program.

TABLES

The table below summarizes the emissions of this project. The potential emissions of process equipment, which exclude emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. Existing actual emissions do not exist, because this plant has never previously been permitted. Potential emissions of the application represent the emissions of all equipment and activities at all potential operating sites, assuming continuous operation (8,760 hours per year) at the maximum allowable site parameters. Conditioned potential emissions represent the emissions from all equipment and activities at all potential operating sites that will limit their production to a maximum of 700,000 total tons of material crushed per year. These production limitations were imposed to indirectly limit PM₁₀ emissions below the de minimis level for all sites at which the portable plant may operate.

Table 2: 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	14.72	N/A	217.38	38.59
PM ₁₀	15.0	7.16	N/A	84.49	15.00
PM _{2.5}	10.0	0.33	N/A	12.17	2.16
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

^aPotential Emissions of Process Equipment excludes haul road and storage pile emissions

^bIncludes site specific haul road and storage pile emissions

EMISSIONS CALCULATIONS

Emissions for the project were calculated 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 were 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 were calculated using the predictive equation from AP-42 Section 13.2.2 *Unpaved Roads* (November 2006). A 50% control efficiency for PM and PM₁₀ and a 22% control efficiency for PM_{2.5} were applied to the emissions calculations for the use of undocumented watering. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate is 1.5% by weight. 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 (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are conditioned below de minimis levels, but potential emissions of PM are above the de minimis level.

APPLICABLE REQUIREMENTS

Gillespie Excavating Co., LLC 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.
- *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

- *New Source Performance Regulations*, 10 CSR 10-6.070
–*Standards of Performance for Nonmetallic Mineral Processing Plants*,
40 CFR Part 60, Subpart OOO
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) 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*, 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 January 21, 2016, received January 26, 2016, designating Gillespie Excavating Co., LLC as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%	percent	MMBtu	Million British thermal units
°F	degrees Fahrenheit	MMCF	million cubic feet
acfm	actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	NAAQS ...	National Ambient Air Quality Standards
BMPs	Best Management Practices	NESHAPs ..	National Emissions Standards for Hazardous Air Pollutants
Btu	British thermal unit	NO_x	nitrogen oxides
CAM	Compliance Assurance Monitoring	NSPS	New Source Performance Standards
CAS	Chemical Abstracts Service	NSR	New Source Review
CEMS	Continuous Emission Monitor System	PM	particulate matter
CFR	Code of Federal Regulations	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CO	carbon monoxide	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
CO₂	carbon dioxide	ppm	parts per million
CO_{2e}	carbon dioxide equivalent	PSD	Prevention of Significant Deterioration
COMS	Continuous Opacity Monitoring System	PTE	potential to emit
CSR	Code of State Regulations	RACT	Reasonable Available Control Technology
dscf	dry standard cubic feet	RAL	Risk Assessment Level
EQ	Emission Inventory Questionnaire	SCC	Source Classification Code
EP	Emission Point	scfm	standard cubic feet per minute
EPA	Environmental Protection Agency	SDS	Safety Data Sheet
EU	Emission Unit	SIC	Standard Industrial Classification
fps	feet per second	SIP	State Implementation Plan
ft	feet	SMAL	Screening Model Action Levels
GACT	Generally Available Control Technology	SO_x	sulfur oxides
GHG	Greenhouse Gas	SO₂	sulfur dioxide
gpm	gallons per minute	tph	tons per hour
gr	grains	tpy	tons per year
GWP	Global Warming Potential	VMT	vehicle miles traveled
HAP	Hazardous Air Pollutant	VOC	Volatile Organic Compound
hr	hour		
hp	horsepower		
lb	pound		
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		
m/s	meters per second		
Mgal	1,000 gallons		
MW	megawatt		
MHDR	maximum hourly design rate		

Mr. Dale Gillespie
Owner
Gillespie Excavating Co., LLC
2068 North Farm Road 227
Strafford, MO 65757

RE: New Source Review Permit - Project Number: 2016-01-047

Dear Mr. Gillespie:

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. 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 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.

Mr. Dale Gillespie
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If you have any questions regarding this permit, please do not hesitate to contact Ryan Schott, 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:rsj

Enclosures

c: Southwest Regional Office
PAMS File: 2016-01-047

Permit Number: