November 3, 2020

Haley Quall Office Manager QBQ Portable Plant #3 PORT-0821 509 US Highway 169 Redding, Iowa 50860

RE: New Source Review Permit - Project Number: 2020-07-048

Dear Haley Quall:

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 the permittee 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: <a href="http://dnr.mo.gov/regions/">http://dnr.mo.gov/regions/</a>. The online CAV request can be found at <a href="http://dnr.mo.gov/cav/compliance.htm">http://dnr.mo.gov/cav/compliance.htm</a>.

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



Haley Quall Page Two

Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: <a href="https://www.oa.mo.gov/ahc">www.oa.mo.gov/ahc</a>.

If you have any questions regarding this permit, 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: Kanasas City Regional Office

PAMS File: 2020-07-048

Permit Number: 112020-006



## 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:	112020-006	Project Number: Installation ID:	
Parent Company:	QBQ Industries, LLC		
Parent Company Address:	509 US Highway 169, Reddin	ıg, Iowa 50860	
Installation Name:	QBQ Portable Plant #3 PORT	T-0821	
Installation Address:	38139 230th Street, Ravenwo	ood, Missouri 6447	<b>7</b> 9
Location Information:	Nodaway County, S31/36, T6	5N, R34W	
	Construct was made for: ic portable rock crushing plant 5), Missouri State Rule 10 CSF		
	s (on reverse) are applicable to s (on reverse) and Special Cor	·	able to
	Director or Desi	gnee	

Department of Natural Resources

November 3, 2020

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: <a href="http://dnr.mo.gov/regions/">http://dnr.mo.gov/regions/</a>

### **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."

Generic Plant Designation and Maximum Combined Hourly Design Rate
 QBQ Portable Plant #3 PORT-0821 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	Combined MHDR	Maximum Number of Units
Feeder/Grizzly	350 tons per hour	1
Primary Crusher	350 tons per hour	1
Primary Conveyor	350 tons per hour	1
Secondary Crusher	300 tons per hour	1
Secondary Conveyors (6)	900 tons per hour	6
3 Deck Screen	300 tons per hour	1
Stackers (4)	300 tons per hour	4

- 2. Generic Plant Equipment Identification Requirement
  - A. The permittee shall submit the following information to the Air Pollution Control Program's Compliance/Enforcement Section and the Northeast and Kansas City Regional Office within 15 days of actual startup.
    - 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).

### **GENERAL SPECIAL CONDITIONS:**

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

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.

- 4) The permittee shall notify the Air Pollution Control Program's Compliance/Enforcement Section and the Kansas City Regional Office when new equipment is added to the master list and when core equipment is changed within 30 days of the change.
- B. The permittee 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.
- Equipment Identification Requirement
   The permittee 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. The portable plant covered under this permit, PORT-0821, shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant contain a nonroad engine requirement which limits the portable plant at the site specific location 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, then the application must be received by the Air Pollution Control Program 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 (e.g. the site was only permitted for solitary operation and now another plant is located at the site), 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.

### **GENERAL SPECIAL CONDITIONS:**

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

5. Record Keeping Requirement

The permittee 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

The permittee shall report to the Air Pollution Control Program Compliance/Enforcement Section by mail at P.O. Box 176, Jefferson City, MO 65102 and 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-0821** 

### **Table 2: Approved Sites**

Blue Mound Quarry ID: 117-0021 24049 Hwy Z, Dawn, Missouri 64638 Livingston County; Northeast Region S34/35, T62N, R24W

Trenton Quarry ID: 079-0016 38 N Hwy 146, Trenton, Missouri 64683 Grundy County; Northeast Region S24,T61N, R25W

Bethany Quarry ID: 081-0017 29365 Outer Road, Bethany, Missouri 64424 Harrison County; Northeast Region S1/2, T63N, R28W

Stanberry Quarry ID: 075-P016 4656 397<sup>th</sup> St., Stanberry, Missouri 64489 Gentry County; Kansas City Region S28, T62N, R32W

Gooden Quarry ID: 147-0017 38139 230<sup>th</sup> St., Ravenwood, Missouri 64640 Nodaway County; Kansas City Region S31/36, T65N, R33W

Graham Quarry ID: 147-0003 33630 Empire Rd., Skidmore, MO 64455 Nodaway County; Kansas City Region S25, T63N, R37W Kingston Quarry ID: 025-0003 660 SE Quarry Dr., Kingston, Missouri 64650 Caldwell County; Northeast Region S27/34, T56N, R 28W

Cameron Quarry ID: 063-0012 2674 SE Frost Rd., Cameron, Missouri 64429 DeKalb County; Kansas City Region S5/30, T57/58N, R30W

Jeffries Quarry ID:081-0018 11781 Bayport Rd., Blythedale, Missouri 64426 Harrison County; Northeast Region S3, T66N, R26W

Barnard Quarry ID: 147-0029 County Road 940, Barnard, Missouri 64423 Nodaway County; Kansas City Region S9/10, T62N, R35W

Maitland Quarry ID 087-0002 County Road 91, Maitland, Missouri 64466 Holt County; Kansas City Region S34, T62N, R37W

### SITE SPECIFIC SPECIAL CONDITIONS:

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

### 1. Annual Emission Limit

- A. The permittee shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive12-month rolling period from the portable plant and its associated processes for each site. The permittee shall include all actual emissions in the limit including SSM emissions as well as any excess 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*.
- B. The permittee shall demonstrate compliance with Special Condition 1.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
- 2. Undocumented Watering Requirement

The permittee shall apply a water spray on all vehicular activity areas whenever conditions exist that would allow visible emissions from these sources to leave the property.

3. Primary Equipment Requirement

The permittee shall process all rock through the primary crusher. Bypassing the primary crusher is prohibited.

4. Nonroad Engine Requirement

The permittee cannot operate the portable plant, at this site longer than 12 consecutive months in order to avoid recordkeeping showing the movement of the engine. To meet the definition of a nonroad engine as stated in 40 CFR 89.2, engines cannot remain in one physical location for longer than 12 consecutive months.

5. Record Keeping Requirement

The permittee 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.

6. Reporting Requirement

The permittee shall report to the Air Pollution Control Program, Compliance / Enforcement Section by mail to P.O. Box 176, Jefferson City, MO 65102 and 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: 2020-07-048
Installation ID Number: PORT-0821
Permit Number: 112020-006

QBQ Portable Plant #3 PORT-0821: Complete: August 13, 2020

38139 230th Street Ravenwood, Missouri 64479

Parent Company: QBQ Industries, LLC 509 US Highway 169 Redding, Iowa 50860

### PROJECT DESCRIPTION

PORT-0821 is a generic rock crushing plant consisting of 2 crushers, 1 three-deck screen, 7 conveyors, and 4 stackers. The maximum MHDR is 350 tons per hour for the primary crusher. The diesel engine(s) meet the definition of non-road engine as defined in 40 CFR 89.2 (1)(i). Therefore, the emissions of the engine were not included. QBQ Industries, LLC performs custom rock crushing for local quarries to the desired specifications of the customer. The raw material fed into PORT-0821 will be on-site when QBQ arrives. PORT-0821 will process the rock and discharge into various storage piles depending on the clients' request, not to exceed two acres. The client will subsequently sell the processed rock; therefore, no haul roads are associated with the equipment as the sales and shipping haul road will be emissions generated by the site owner.

Initially, the rock crushing plant will be operated at Gooden Quarry located in Nodaway County, an attainment area for all criteria pollutants. The portable plant is approved for relocation to 10 additional sites as part of this permit. The additional sites will be located in the counties of Livingston, Caldwell, Grundy, DeKalb, Harrison, Gentry and Holt. The sites are attainment/unclassifiable areas for all criteria pollutants.

In order to relocate QBQ Portable Plant #3 PORT-0820 to the sites listed in the special conditions of this permit, QBQ Industries, LLC shall submit an application to the Air Pollution Control Program 7 days prior to the planned relocation. If QBQ Portable Plant #3 PORT-0820 is relocating to a new site, QBQ Industries, LLC shall submit an application to the Air Pollution Control Program 21 days prior to the planned relocation.

No permits have been issued to QBQ Portable Plant #3 PORT-0821 from the Air Pollution Control Program.

### **TABLES**

The table below summarizes the emissions of the worst case scenario site for vehicular activity and wind erosion. The potential emissions of the process equipment, which excluded emissions from vehicular activity and wind erosion, are not site specific and should not vary from site to site. 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 the annual emission limit. Conditioned potential emissions account for the voluntary limit in order to avoid refined modeling according to 10 CSR 10-6.060 (6)(B)3. The potential emissions listed in Table 3 are the same for each site listed in Table 2.

Table 3: Worst Case Site Emissions Summary (tpy)

Pollutant	Regulatory De Minimis Levels	Potential Emissions of Process Equipment	<sup>a</sup> Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	92.24	179.38	36.27
PM <sub>10</sub>	15.0	34.40	74.19	<15.0
PM <sub>2.5</sub>	10.0	6.60	12.87	2.60
SOx	40.0	N/A	N/A	N/A
NOx	40.0	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A
СО	100.0	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A

N/A = Not Applicable

### **EMISSIONS/CONTROLS EVALUATION**

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:

- Calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004.
- The uncontrolled emission factors were used because the inherent moisture content of the crushed rock is equal to or less than 0.7 % by weight.

Emissions from vehicular activity areas:

- The 100-foot loader vehicular activity to the grizzly control efficiency for PM and PM<sub>10</sub> is 50% and 41% for PM<sub>2.5</sub> for undocumented watering.
- Vehicular activity was based upon the worst-case scenario of loading in and out of

<sup>&</sup>lt;sup>a</sup> Worst case site vehicular activity and storage pile emissions included

2 acres of storage piles located 100ft away from the crusher. 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 0.7% 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."

The engines emissions were not evaluated for this review as the diesel engine at this site is classified as nonroad engine. 40 CFR 63 Subpart ZZZZ, "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and 40 CFR 60 Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" does not apply. However, if the engines were to remain in one location for longer than 12 consecutive months, it would not be in compliance with this permit because engine emissions were not evaluated. It may also not be in compliance with MACT ZZZZ or NSPS IIII. The nonroad engines are subject to further applicable requirements in 40 CFR 89 and 40 CFR 1039 which are outside the purview of this program.

### 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<sub>10</sub> are conditioned to de minimis levels, a voluntary limit in order to avoid refined modeling according to 10 CSR 10-6.060 (6)(B)3.

### APPLICABLE REQUIREMENTS

QBQ Portable Plant #3 PORT-0821 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 for this installation.
- 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

- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment. See attached Test Plan at the end of this permit.
- 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 (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 July 29, 2020, received July 30, 2020, designating QBQ Industries, LLC as the owner and operator of the installation.

# Attachment A: PM<sub>10</sub> 12-Month Rolling Total Emissions Tracking Sheet QBQ Portable Plant #3 PORT-0821

Project Number: 2020-07-046 Permit Number: 112020-006

Site ID Number:			
Site Name:			
Site Address:			
Site County:	Site Region:		
This sheet covers the period from $\_$	to _		(Copy as needed)
	(Month, Day Year)	(Month, Day Year)	

Month	Production (tons)	PM <sub>10</sub> Composite Emission Factor (lb/ton)	Monthly PM <sub>10</sub> Emissions <sup>1</sup> (lbs)	Startup, Shutdown and Malfunction PM <sub>10</sub> Emissions <sup>2</sup> (lbs)	Monthly PM <sub>10</sub> Emissions <sup>3</sup> (tons)	12-Month Rolling Total Emissions <sup>4</sup> (tons)
Example	75,000	0.0257	1,928	0.0	0.96	0.96 + 11 previous months at this site
		0.0257				
		0.0257				
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		0.0257				
18.4 10: 1 11		0.0257				

<sup>&</sup>lt;sup>1</sup>Multiply the monthly production by the emission factor.

<sup>&</sup>lt;sup>2</sup>Divide the monthly emissions (lbs) by 2000.

<sup>&</sup>lt;sup>3</sup>Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than <u>15.0 tons</u> of PM<sub>10</sub> is necessary for compliance. The permittee shall include all actual emissions in the limit including SSM emissions as well as any excess 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*.



# PROPOSED TEST PLAN

Submitted to: MO Dept. of Natural Resources, Air Pollution Control Program, Enforcement Section P.O. Box 176, Jefferson City, MO 65102

0.:	Fax No.:	act Person:	Phone No. of Contact Person:
		າtact Person:	Name & title of Contact Person:
Zip:	State:		City
			Address:
			Name of Firm:
		INFORMATION:	3.) TESTING FIRM INFORMATION:
		Other (specify)	
		Administrative Order	
Consent Agreement		Condition of Permit	Reason for Test:
			Initial Start-up Date:
		(or map attached):	Directions to Source (or map attached):
			Address/Location:
PORT #		FIPS/Plant ID:	Permit #
		ce:	Type of Facility/Source:
		2.) AIR POLLUTION SOURCE TO BE TESTED:	2.) AIR POLLUTIO
	Fax No.:	act Person:	Phone No. of Contact Person:
		ntact Person:	Name & title of Contact Person:
Zip:	State:		City
			Address:
			Name:
		RMATION:	1.) FACILITY INFORMATION:
			-
			Proposed Test Date:
			Attention:
			Date Submitted:



# PROPOSED TEST PLAN

Submitted to:

MO Dept. of Natural Resources, Air Pollution Control Program, Enforcement Section P.O. Box 176, Jefferson City, MO 65102

Organizational chart with names & title of personnel: (please attach)
No. of employees actually engaged in air pollution source testing:
Number of employees of firm:

3.) TESTING FIRM INFORMATION: (cont.)
Location & description of laboratory facilities:
Subcontractor(s) utilized by firm for source testing activities:
Number of air pollution sources previously tested by firm:
Sources tested by firm in Missouri in past 3 years (source, test, date):
4.) PERFORMANCE TEST INFORMATION:

4.) P	ERFORMANCE TEST INF	ORMATION	ON:		
	Pollutant	No. of Sampli ng Points	Total Time per Test Run	No. of Test Runs	Test Method to be Used
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

## PRELIMINARY METHOD 1 DATA

Duct to be Sample	d:		Sketch of Stack or Duct with Port Locations & Distances Shown [NOTE: Cyclonic flow must be measured by instrument and
Duct Dimensions:			shown to be within allowable limits prior to initiation of sampling.] If sampling
From inside far w	all to outside		location is downstream from an axial flow fan, installation of a flow straightening device will
	Nipple length		probably be necessary to meet cyclonic flow
Depth (or dia	ameter) of duct		- Cittoriori
Width (re	ctangular duct)		
Equivalent Diamete	r wall to outside Nipple length r diameter) of duct (rectangular duct) neter:  Ports to Nearest Flow Disturbance  Upstream Downstream  Downstream  Downstream		
Distance from Por	ts <b>to</b> Nearest Flo	w Disturbance	
	Upstream	Downstream	
Distance			
Diameters			
Stack Area =		IN <sup>2</sup>	
Calculated by:			

	4	6	8	10	12	14	16	18	20	22	24
1	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	25	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3	75	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6	5.5
4	93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9
5		85.4	67.7	34.2	25	20.1	16.9	14.6	12.9	11.6	10.5
3		95.6	80.6	65.8	35.6	26.9	22	18.8	16.5	14.6	13.2
7			89.5	77.4	64.4	36.8	28.3	23.6	20.4	18	16.1
В			96.8	85.4	75	63.4	37.5	29.6	25	21.8	19.4
9				91.8	82.3	73.1	62.5	38.2	30.6	26.2	23
10				97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2
11					93.3	85.4	78	70.4	61.2	39.3	32.3
12					97.9	90.1	83.1	76.4	69.4	60.7	39.8

LOCATION OF TRAVERSE POINTS IN RECTANGULAR STACKS											
	2	3	4	5	6	7	8	9	10	11	12
1	25	16.7	12.5	10	8.3	7.1	6.3	5.6	5	4.5	4.2
2	75	50	37.5	30	25	21.4	18.8	16.7	15	13.8	12.5
3		83.3	62.5	50	41.7	35.7	31.3	27.8	25	22.7	20.8
4			87.5	70	58.3	50	43.8	38.9	35	31.8	29.2
5				90	75	64.3	56.3	50	45	40.9	37.5
6					91.7	78.6	68.8	61.1	55	50	45.8
7						92.9	81.3	72.2	65	59.1	54.2
8							93.8	83.2	75	68.2	62.5
9								94.4	85	77.3	70.8
10									95	86.4	79.2
11										95.5	87.5
12											95.8

POINT	% of Stack I.D.	Stack I.D.	Outside Wall	Nipple Length	Outside of Port

	o.) GENERAL				
Α.	Sampling Equipment Information:				
	The manufacturer and model of the sampling equipment to be used by the tester for the performance tests, along with a description of any equipment which may differ from that required by the specified method(s).				
В.	Test Procedures:				
	A description of any test procedures to be used in the conduct of the performance tests which may differ from the specified method(s).				
	NOTE: Deviations from EPA test methods observed during test procedures will not necessarily be corrected by agency observer and could result in agency rejection of test results.				
C.	nalytical Procedures:				
	A description of any analytical procedures which differ from the specified method(s).				
D.	Data Sheets:				
	A sample of all field data sheets which do not provide the data shown on the example sheets in 40 CFR 60 for the specified method(s).				
E.	Air Pollution Control Equipment:				
	Types and manufacturers of all control equipment:				
	Design or guarantee efficiency:				
	Design gas volume at full load (acfm):				
	Design pressure drop:				

Maintenance schedule and method of record keeping:

		metallic Mineral F					
Describe be line (40 CFF		h processing plant l):	and all aff	ected facilities	in the asso	ociated p	roduction
A. Genera	l charac	terization of proce	ssing plant	:			
B. Nonmet	tallic mir	neral(s) being proc	essed:				
	Maximum rated design capacity of plant's production line: tons/hour Maximum expected production rate for compliance test:tons/hour						
D. [] Fixed	•	[ ] Portable plar	nt				
E. Product	. ,						
		es (equipment) to b	1	1	1	I.	1
Affected Fac	cility	Manufacturer	Date	Model	Serial #	Size	Plant I #

6.)	SPECIFIC Nonmetallic Mineral Processing Plant [NSPS Subpart 000](page 2 of 2)
G.	Total number of fugitive emission points to be observed:
H.	Total number of control device stacks and/or building vent emission points to be tested:  [ ] Method 5 or [ ] Method 17  (Note: 60 dscf is the minimum sample volume to be collected)
I.	Number of buildings enclosing affected facilities and requiring EPA Method 22 observations:
J.	Normal operating schedule (hrs/day, days/wk, wks/yr):
K.	Process flow diagram, to include all affected facilities and control devices: (Please attach)
PR	OCEDURAL NOTES:
1.	Testing is to be done on nonmetallic mineral processing of a <b>fresh blast</b> .(i.e. rain-soaked material can result in negative-biased test results and subsequent violation notices when emissions increase later from dry material).
2.	Nonmetallic mineral shall be processed at its <b>maximum production rate</b> , +/- 10%; otherwise production is limited to the rate at which compliance with regulations was demonstrated. A record of throughput production tonnage shall be kept during testing so

- 3. Fugitive emission **opacity** read by EPA Method 9 may be of a duration of one hour, for no more than three points in any one hour, if the following applies: for crushers no individual reading is > 15% and no more than 3 of the 240 readings = 15%; for all other affected facilities no individual reading is >10% and no more than 3 of the 240 readings = 10%. When emission from an affected facility exceeds these criteria then it shall be read for a duration of 3 hours for compliance determination.
- 4. Two copies of the final report of the test results shall be provided to the coordinating regulatory agency within 30 days of the completion of the compliance test.

that the ton/hour production rate may be determined.

7.)	CONTINUOUS MONITORING SYSTEM
A c	description of continuous monitoring system(s) including the following:
A.	Manufacturer of each monitor:
B.	Model number and serial number of each monitor:
C.	Description of interface system (for extractive monitors):
D.	Description of data acquisition and handling system:
E.	Number of copies of operator's manual supplied with each monitor:
F.	Name of testing firm that will perform the reference method tests for sulfur dioxide and/or nitrogen oxides during the continuous monitoring system performance evaluations:
G.	Name of organization that will perform the continuous monitoring system performance evaluations (Source operator, monitoring system manufacturer or representative, or testing firm):
H.	Anticipated starting date of the conditioning period for the monitoring systems:
I.	Drawing of the monitoring system location(s) showing stack or duct dimensions, air pollution control equipment, fans, and location(s) of disturbances which affect monitor location(s) determination (May be shown on drawing required on Preliminary Test Method Page or attach to this document).

### SOURCE TESTING REPORT FORMAT

### COVER

- Plant name and location
- Source sampled
- Testing company or agency, name, and address

### CERTIFICATION

- Certification by team leader
- Certification by reviewer (e.g.: Professional Engineer)

### INTRODUCTION

- Test purpose
- Test location, type of process
- Test dates
- Pollutants tested
- Observers' names (industry and agency)
- Any other important background information

### SUMMARY OF RESULTS

- Emission results
- Process data, as related to determination of compliance
- Allowable emissions
- Description of collected samples
- Visible emissions summary
- Discussion of errors, both real and apparent

### **SOURCE OPERATION**

- Description of process and control device
- Process and control equipment flow diagram
- Process data and results, with example calculations
- Representatives of raw materials and products
- Any specially required operation demonstrated

### SAMPLING and ANALYSIS PROCEDURES

- Sampling port location and dimensioned cross section
- Sampling port description, including labeling system
- Sampling train description
- Brief description of sampling procedures, with discussion of deviations from standard methods
- Brief description of analytical procedures, with discussion of deviations from standard methods

### **APPENDIX**

- Complete results with example calculations
- Raw field data (original, not computer printouts)
- Laboratory report, with chain of custody
- Test log
- Calibration procedures and results
- Project participants and titles
- Related correspondence