

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: 062018-002

Project Number: 2018-04-026
Installation ID: PORT-0774

Parent Company: Dawkins On--Site, LLC

Parent Company Address: P.O. Box 1096, Hartsville, SC 29551

Installation Name: Dawkins On-Site LLC PORT-0774


Installation Address: 500 Rebar Rd, Sedalia, MO 65301

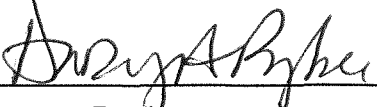
Location Information: Pettis County, S27 & 34 T46N R21E

Application for Authority to Construct was made for:
Construction of a portable concrete 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.


Prepared by
Chad Stephenson
New Source Review Unit


Director or Designee
Department of Natural Resources

JUN 04 2018

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 source(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 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

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 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. **Equipment Identification Requirement**
Dawkins On-Site LLC PORT-0774 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. These identification numbers must be submitted to the Air Pollution Control Program no later than 15 days after start-up of the portable concrete plant.
2. **Relocation of Portable Concrete Plant**
 - A. Dawkins On-Site LLC PORT-0774 shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0760, contain a nonroad engine requirement limiting 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 concrete plant.
 - 1) If the portable concrete 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 concrete 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.
3. **Record Keeping Requirement**
Dawkins On-Site LLC PORT-0774 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.
4. **Reporting Requirement**
Dawkins On-Site LLC PORT-0774 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."

PORT ID Number: PORT-0774

Site Name: Nucor

Site Address: 500 Rebar Rd, Sedalia, MO 65301

Site County: Pettis S27 & 34 T46N R21E

1. Undocumented Watering Requirement
Dawkins On-Site LLC PORT-0774 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. Annual Emission Limit
 - A. Dawkins On-Site LLC PORT-0774 shall emit less than 15.0 tons of PM₁₀ 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. Dawkins On-Site LLC PORT-0774 shall demonstrate compliance with Special Condition 2.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
3. Control Device Requirement-Baghouse
 - A. Dawkins On-Site LLC PORT-0774 shall control emissions from the following equipment using a baghouse as specified in the permit application.
 - 1) Weigh Hopper
 - 2) Truck Mix Loadout (shroud vented to baghouse)
 - B. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The transfer line from any truck unloading cement to the silo shall be equipped with a gauge or meter, which indicates the pressure drop across the baghouse. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them.
 - C. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to

SITE SPECIFIC SPECIAL CONDITIONS:

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

occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

- D. Dawkins On-Site LLC PORT-0774 shall monitor and record the operating pressure drop across the baghouse at least once every time a truck unloads cement to the silo. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- E. Dawkins On-Site LLC PORT-0774 shall maintain a copy of the baghouse manufacturer's performance warranty on site.
- F. Dawkins On-Site LLC PORT-0774 shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

4. Record Keeping Requirement

Dawkins On-Site LLC PORT-0774 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.

5. Reporting Requirement

Dawkins On-Site LLC PORT-0774 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 (6) REVIEW

Project Number: 2018-04-026

Installation ID Number: PORT-0774

Permit Number: 062018-002

Dawkins On-Site LLC PORT-0774:
500 Rebar Rd
Sedalia, MO 65301

Complete: May 7, 2018

Parent Company:
Dawkins On--Site, LLC
P.O. Box 1096
Hartsville, SC 29551

Pettis County, S27 & 34 T46N R21E

PROJECT DESCRIPTION

Dawkins On-Site LLC PORT-0774 is constructing a portable concrete plant in Sedalia, Missouri in Pettis County. The plant is a Vance Hagan HT-12-12400C-65 concrete plant, rated at 220 cubic yards/hour (MHDR is 440 tons/hour). The plant's main purpose is to provide concrete for the Nucor Steel Project and will be located on the Nucor site. PORT-0774 cannot operate at this site once Nucor starts operation.

The cement silo and fly ash silo are each controlled with a dust collector which uses a filter cartridge. The cement and fly ash are pneumatically loaded and the filter is inherent to this process. The emissions from the weigh hopper and truck load out are controlled by a Model 1083-JP Intruss Baghouse. Electric power will be supplied by the local utility for all equipment including the hot water heater.

The finished product haul road was estimated to be 1,600 feet long. PORT-0774 will take the finished product to a variety of locations on-site for providing concrete to the Nucor steel project. The raw material/aggregate and sand haul road will be 4,000 feet long. The applicant is using undocumented watering to control emissions from haul roads and vehicular activity areas.

This installation is located in Pettis County, 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].

No permits have been issued to Dawkins On-Site LLC PORT-0774 from the Air Pollution Control Program.

TABLES

Table 1: Concrete Plant Equipment List

Emission Point	Description	MHDR
EU-1	Aggregate Transfer	203.93 tph
EU-2	Sand Transfer	156.14 tph
EU-3	Cement Unloading to Silo	53.69 tph
EU-4	Supplement unloading (pneumatic)	7.98
EU-5	Weigh Hopper	360.07 tph
EU-6	Truck Loading	61.67 tph
EU-7a	Aggregate Storage Pile-Load in	203.93 tph
EU-7b	Aggregate Storage Pile-Load out	203.93 tph
EU-7c	Aggregate Storage Pile-Vehicular Activity	6.44 VMT
EU-7d	Aggregate Storage Pile-Wind Erosion	0.25 acre
EU-8a	Sand Storage Pile-Load in	156.14 tph
EU-8b	Sand Storage Pile-Load out	156.14 tph
EU-8c	Sand Storage Pile-Vehicular Activity	4.93 VMT
EU-8d	Sand Storage Pile-Wind Erosion	0.25 acres
EU-9	Material Haul Road (Sand and Aggregate)	49.15 VMT/hr
EU-10	Finished Product Haul Road (unpaved)	20.51 VMT/hr

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 are no existing actual emissions since this is a new plant. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). Conditioned potential emissions account for a voluntary annual PM₁₀ emission limit of 15.0 tons per year.

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	29.55	N/A	2,081.89	49.89
PM ₁₀	15.0	13.62	N/A	625.99	<15.0
PM _{2.5}	10.0	3.94	N/A	76.85	1.84
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
GHG (CO ₂ e)	N/A	N/A	N/A	N/A	N/A
GHG (mass)	N/A	N/A	N/A	N/A	N/A
Total HAPs	25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

^aExcludes haul roads and storage pile emissions

^bIncludes 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 concrete batch plant:

- Calculated using emission factors from AP-42 Section 11.12 "Concrete Batching," June 2006.
- This section cites Equation (1) in Section 13.2.4 "Aggregate Handling and Storage Piles," November 2006 for calculating the emissions from aggregate and sand transfer.
- The cement and supplement silos are controlled with fabric filters, so the controlled emission factors were used.

Emissions from the aggregate weigh hopper and truck loading:

- Calculated using AP-42 Section 13.2.4, Equation (1).
- The emissions from the weigh hopper are controlled by a baghouse.
- Emissions from mix truck loading are controlled by a shroud vented to a baghouse, so the controlled emission factor was used.

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 50% control efficiency for PM and PM₁₀ and a 41% 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 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."

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual PM₁₀ emission limit of 15.0 tons per year. Potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM.

APPLICABLE REQUIREMENTS

Dawkins On-Site LLC PORT-0774 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.

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110.
- No Operating Permit is required for this installation because it is a portable plant.
- *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 (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 April 18, 2018, received April 18, 2018, designating Dawkins On--Site, LLC as the owner and operator of the installation.

Attachment A: PM₁₀ Tracking Sheet

Dawkins On-Site LLC PORT-0774

Project Number: 2018-04-026

Permit Number: **062018-002**

Site Name: Nucor

Site Address: 500 Rebar Rd, Sedalia, MO 65301

Site County: Pettis County

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)
<i>Example</i>	20,000	0.3248	6,496	0.0	3.25	<i>3.25 + 11 previous months at this site</i>
		0.3248				
		0.3248				
		0.3248				
		0.3248				
		0.3248				
		0.3248				
		0.3248				
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		0.3248				

¹Multiply the monthly production by the PM₁₀ composite emission factor.
²As reported to the Air Pollution Control Program’s Compliance/Enforcement Section according to the provisions of 10 CSR 10-6.050 for the month.
³Add the monthly PM₁₀ emissions plus the SSM emissions from the same time period and divide by 2000 and
⁴Add 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 PM₁₀ per consecutive 12 months is necessary for compliance.

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
EIQ	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	SSM	startup, shutdown, & malfunction
gr	grains	tph	tons per hour
GWP	Global Warming Potential	tpy	tons per year
HAP	Hazardous Air Pollutant	VMT	vehicle miles traveled
hr	hour	VOC	Volatile Organic Compound
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		

NOTICE: This spreadsheet is for your use only and should be used with caution. MoDNR does not guarantee the accuracy of the information it contains. This spreadsheet is subject to continual revision and updating. It is your responsibility to be aware of the most current, accurate and complete information available. MoDNR is not responsible for errors or omissions in this spreadsheet. Submittal of the information contained in this spreadsheet (workbook) does not relieve the responsible official of the certification statement signed on the first page of the application.

		Pollutant	Justification for Limit	Limit Hours per Year
Hours per day	24.0	PM10	NAAQS	
Days per year	8.7	N/A	N/A	Limit Hours per Year w/ 24 hr day
Hours per year	209.9	PM10	De Minimis	

Pollutant	Potential Emissions of Process Equipment (tons/yr)	Potential Emissions including fugitives (tons/yr)	Allowable Emissions for 210 hours per year (tons/yr)	DeMinimis Thresholds	Plant-wide Composite Emission Factor (lb/ton)
PM	29.55	2081.89	49.89	25	1.0803
PM ₁₀	13.62	625.99	15.00	15	0.3248
PM _{2.5}	3.94	76.85	1.84	10	0.0399
SO ₂	0.00	0.00	0.00	40	0.0000
NO ₂	0.00	0.00	0.00	40	0.0000
VOC	0.00	0.00	0.00	40	0.0000
CO	0.00	0.00	0.00	100	0.0000
CH ₂ O	0.00	0.00	0.00	2	0.0000
C ₁₁ H ₁₀	0.00	0.00	0.00	-	0.0000
Pb	0.00	0.00	0.00	0.01	0.0000
HAPs	0.00	0.00	0.00	10	0.0000
CO ₂	0.00	0.00	0.00	100	0.0000
N ₂ O	0.00	0.00	0.00	100	0.0000
CH ₄	0.00	0.00	0.00	100	0.0000
GHG _{mass}	0.00	0.00	0.00	100	0.0000
CO ₂ eq	0.00	0.00	0.00	100,000	0.0000

Maximum hourly design rate (tons/hr)	440
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Tons of product per day	10,560.0
Tons of product per year	92,358.8

Cell: C4
Comment: Plant Capacity
One cubic yard of concrete weighs approximately 140 tons

Cell: C26
Comment: Material 1
Also known as aggregate rock. Various limestone products in NGU is a valid choice here

Cell: C40
Comment: Storage Pile ID No.
The storage pile ID is not used on the emission factor pages, but rather labeled "Storage Pile"

Cell: C40
Comment: Pile #1
This pile is associated with the Aggregate Transfer. Load indices are used here for crop ponds

Cell: C40
Comment: Pile #2
This pile is associated with the Sand Transfer. Load indices are used here for crop ponds

Cell: C41
Comment: Maximum Surface Area of Storage Pile (Acres)
Enter the total surface area of all storage piles

Cell: C43
Comment: Storage Pile Materials - Moisture Content Information
Moisture Content %
Material Storage - Range Mean
Crushed Limestone * 0.2 to 1.1 0.7
Various Limestone Products 0.45 to 0.9 2.1
Sand - - - 7.4
Clay/Soil Mix - - - 14.0
Clay - - - 8.5 to 11.0 10.0
* Additional documentation (i.e. test data ASTM C 136 method) should be provided if using a different value for the moisture content in place of the default (range) value

Cell: C44
Comment: Storage Pile Materials - Silt Content Information
Silt Content %
Material Storage - Range Mean
Crushed Limestone * 1.3 to 1.5 1.4
Various Limestone Products 0.8 to 1.4 1.0
Sand - - - 2.8
Clay/Soil Mix - - - 9.2
Clay - - - 4.0 to 7.4 6.0
* Additional documentation (i.e. test data ASTM C 136 method) should be provided if using a different value for the silt content in place of the default (range) value

Cell: C44
Comment: Silt Content %
The initial default values for silt content should be replaced with site specific information

Cell: C48
Comment: Unloaded Load Weight
This table will be used by Paved & Unpaved worksheets to calculate storage pile traffic emissions

Cell: C50
Comment: Rate
For Pile #1 the default is the primary crusher size

Cell: C51
Comment: Max VMI per Hour
MIDR = 2 * U * H / (U - L) where
MIDR = maximum hourly design rate (VMI/hr)
U = one way weight of haul road (tons)
H = rate of material raised (depth)
L = unloaded truck weight (tons)
U = loaded truck weight (tons)

Cell: C58
Comment: Haul Road ID No.
Enter a value or number to uniquely identify this emission unit at this installation. The value entered for the Haul Road ID No. must be consistent with those in your Emission Inventory Questionnaire (EQ) and your Operating Permit Application

Cell: C58
Comment: Unloaded Truck Weight (tons)
Enter the unloaded weight of the haul trucks. Note: If using haul trucks of varying unloaded weights, then a "test" weighted average value should be used and documentation of the analysis should be included with your submittal.
Example: 70% of trucks are hauled in a 30 ton truck and 30% are hauled in a 30 ton truck. The "test" average unloaded weight would be calculated as follows:
"Test" Avg. VM = [(0.70 * 30 tons) + (0.30 * 30 tons)] / [(0.70 * 30 tons) + (0.30 * 30 tons)] = 45 tons

Cell: C59
Comment: Average Loaded Truck Weight (tons)
Enter the average loaded weight of the haul trucks. Note: If using haul trucks of varying loaded weights, then a "test" weighted average value should be used and documentation of the analysis should be included with your submittal.
Example: 70% of trucks are hauled in a 30 ton truck and 30% are hauled in a 30 ton truck. The "test" average unloaded weight would be calculated as follows:
"Test" Avg. VM = [(0.70 * 30 tons) + (0.30 * 30 tons)] / [(0.70 * 30 tons) + (0.30 * 30 tons)] = 45 tons

Cell: C50
Comment: Rate Hauled
For Road #1 the default is the primary crusher size

Cell: C51
Comment: Max VMI per Hour
MIDR = 2 * U * H / (U - L) where
MIDR = maximum hourly design rate (VMI/hr)
U = one way weight of haul road (tons)
H = rate of material raised (depth)
L = unloaded truck weight (tons)
U = loaded truck weight (tons)

Cell: D6/
Comment: Randy Raymond
Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key

Cell: D6B
Comment: Randy Raymond
Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key

Cell: C71
Comment: Generator set engine
means an engine used primarily to operate an electrical generator or alternator to produce electric power for other applications

Cell: C73
Comment: Fuel Sulfur Content
From: Harrold, Bob
Sent: Monday, December 22, 2014 12:00 PM
To: Little, David
Cc: Harrold, Bob
Subject: FW: no permit required concurrence
The Air Quality Planning Section agrees with the no construction permit required default reason per the requirements of 10 CSR 10.6.06)

Additional Comment:
Please note that as part of the development of the final SO2 AAQSD state implementation plan, Missouri may, in the next few years, lobby a state regulatory requirement that all diesel powered engines and boilers throughout Missouri (that use SO2 sources) shall be required to use diesel fuel compliant with Federal Ultra Low Sulfur Diesel (ULSD) requirements (15 ppm sulfur content). Though the Air Program has been informed by these purchases and users that ULSD is then an option when purchasing diesel and throughout the Midwest, the USEPA does not consider the federal requirements to be binding. As a result, Missouri may be required by USEPA to include such a Sulfur (0.30) requirement in a future state implementing plan as part of another permit and enforcement plan(s). Thank you.

From: Whit, Emily
Sent: Monday, December 15, 2014 1:52 PM
To: Harrold, Bob
Subject: FW: no permit required concurrence

From: Little, David
Sent: Monday, December 15, 2014 1:49 PM
To: Bybee, Daley; Chen, Huijun; Shivers, Jeffrey; Stanfield, Michael; Whit, Emily
Cc: Harrold, Bob
Subject: no permit required concurrence

The permits branch is requesting concurrence on a permit determination. A draft no permit required letter is attached. The Permits Section is sending this email to request each sector to review the draft letter and provide input and approval.

Please respond to this email by December 22.
Thank you.

David Little, PE
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176, Jefferson City, MO 65102
david.little@dnr.mo.gov 573-751-4817

Cell: E76
Comment: Code
Enter your own description of combustion source 1

Cell: D80
Comment: Fuel Type
You should fill in a check for both C7ap.11 & Part 98 and these checks must coincide

Cell: C81
Comment: Write a comment about it

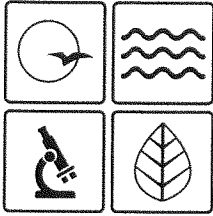
Cell: D82
Comment: Fuel Sulfur
U.S. grams SO2/100 gal
- 0.005 grams SO2/gal
- 0.011441705026 gram SO2/mwhr²
- 0.0017 mol (molar) kg to 100

1	Aggregate transfer Moisture Content (% wt.) = 0.7	3-05-011-04	203.93	tons per hour			N/A	N/A	PM	0.0254	ton	5.17E+00	22.65	0.54
							N/A	N/A	PM ₁₀	0.0120	ton	2.45E+00	10.71	0.26
							N/A	N/A	PM _{2.5}	0.0018	ton	3.70E-01	1.62	0.04
2	Sand transfer Moisture Content (% wt.) = 4.17	3-05-011-05	156.14	tons per hour			N/A	N/A	PM	0.0021	ton	3.25E-01	1.43	0.03
							N/A	N/A	PM ₁₀	0.0010	ton	1.54E-01	0.67	0.02
							N/A	N/A	PM _{2.5}	0.0001	ton	2.33E-02	0.10	0.00
3	Cement unloading to silo	3-05-011-07	53.69	tons per hour		Fabric filter	100%	N/A	PM	0.0010	ton	5.32E-02	0.23	0.01
							100%	N/A	PM ₁₀	0.0003	ton	1.83E-02	0.08	0.00
							100%	N/A	PM _{2.5}	0.0003	ton	1.83E-02	0.08	0.00
4	Supplement unloading (pneumatic)	3-05-011-17	7.98	tons per hour		Fabric filter	100%	N/A	PM	0.0089	ton	7.10E-02	0.31	0.01
							100%	N/A	PM ₁₀	0.0049	ton	3.91E-02	0.17	0.00
							100%	N/A	PM _{2.5}	0.0049	ton	3.91E-02	0.17	0.00
5	Weigh hopper loading	3-05-011-08	360.07	tons per hour		Fabric filter	100%	99.0%	PM	0.0048	ton	1.73E-02	0.08	0.00
							100%	99.0%	PM ₁₀	0.0028	ton	1.01E-02	0.04	0.00
							100%	99.0%	PM _{2.5}	0.0014	ton	5.19E-03	0.02	0.00
6	Truck loading (truck mix) Moisture Content (% wt.) = 0.12	3-05-011-10	61.67	tons per hour		Controlled	N/A	N/A	PM	0.020653965	ton	1.11E+00	4.86	0.12
							N/A	N/A	PM ₁₀	0.008261586	ton	4.44E-01	1.94	0.05
							N/A	N/A	PM _{2.5}	0.008261586	ton	4.44E-01	1.94	0.05
7A	Generator Model Year			bhp gallons per hour mmBtu/hour			N/A	N/A	PM			MMBtu		
							N/A	N/A	PM ₁₀			MMBtu		
							N/A	N/A	PM _{2.5}			MMBtu		
							N/A	N/A	SO ₂			MMBtu		
							N/A	N/A	NO ₂			MMBtu		
							N/A	N/A	CO			MMBtu		
							N/A	N/A	VOC			MMBtu		
							N/A	N/A	CH ₂ O			MMBtu		
							N/A	N/A	HAPs			MMBtu		
							N/A	N/A	CO ₂			MMBtu		
							N/A	N/A	N ₂ O			MMBtu		
							N/A	N/A	GHG _{mass}			MMBtu		
							N/A	N/A	CH ₄			MMBtu		
7B	Generator Model Year			bhp gallons per hour mmBtu/hour			N/A	N/A	PM			MMBtu		
							N/A	N/A	PM ₁₀			MMBtu		
							N/A	N/A	PM _{2.5}			MMBtu		
							N/A	N/A	SO ₂			MMBtu		
							N/A	N/A	NO ₂			MMBtu		
							N/A	N/A	CO			MMBtu		
							N/A	N/A	VOC			MMBtu		
							N/A	N/A	CH ₂ O			MMBtu		
							N/A	N/A	HAPs			MMBtu		
							N/A	N/A	CO ₂			MMBtu		
							N/A	N/A	N ₂ O			MMBtu		
							N/A	N/A	GHG _{mass}			MMBtu		
							N/A	N/A	CH ₄			MMBtu		
7C	Generator Model Year			bhp gallons per hour mmBtu/hour			N/A	N/A	PM			MMBtu		
							N/A	N/A	PM ₁₀			MMBtu		
							N/A	N/A	PM _{2.5}			MMBtu		
							N/A	N/A	SO ₂			MMBtu		
							N/A	N/A	NO ₂			MMBtu		
							N/A	N/A	CO			MMBtu		
							N/A	N/A	VOC			MMBtu		
							N/A	N/A	CH ₂ O			MMBtu		
							N/A	N/A	HAPs			MMBtu		
							N/A	N/A	CO ₂			MMBtu		
							N/A	N/A	N ₂ O			MMBtu		
							N/A	N/A	GHG _{mass}			MMBtu		
							N/A	N/A	CH ₄			MMBtu		

Unit ID	Description of Unit	Equipment Description/SCC	Heat Rate	UoM per hour						Emission Factor (lb/UoM)				
	Combustion #1			mmBtu			100%	N/A	PM		mgal			
				mgal			100%	N/A	PM ₁₀		mgal			
				mmscf			100%	N/A	PM _{2.5}		mgal			
							100%	N/A	SO ₂		mgal			
							100%	N/A	NO ₂		mgal			
							100%	N/A	VOC		mgal			

						100%	N/A	CO		mgal			
						100%	N/A	CH ₂ O		mgal			
						100%	N/A	Pb		mgal			
						100%	N/A	HAPs		mgal			
						100%	N/A	CO ₂		mgal			
						100%	N/A	N.O		mgal			
						100%	N/A	GHG _{mass}		mgal			
						100%	N/A	CH ₄		mgal			
	Combustion #2		mmBtu			100%	N/A	PM		mgal			
			mgal			100%	N/A	PM ₁₀		mgal			
			mmscf			100%	N/A	PM _{2.5}		mgal			
						100%	N/A	SO ₂		mgal			
						100%	N/A	NO ₂		mgal			
						100%	N/A	VOC		mgal			
						100%	N/A	CO		mgal			
						100%	N/A	CH ₂ O		mgal			
						100%	N/A	Pb		mgal			
						100%	N/A	HAPs		mgal			
						100%	N/A	CO ₂		mgal			
						100%	N/A	N.O		mgal			
						100%	N/A	GHG _{mass}		mgal			
						100%	N/A	CH ₄		mgal			
	Combustion #3		mmBtu			100%	N/A	PM		mgal			
			mgal			100%	N/A	PM ₁₀		mgal			
			mmscf			100%	N/A	PM _{2.5}		mgal			
						100%	N/A	SO ₂		mgal			
						100%	N/A	NO ₂		mgal			
						100%	N/A	VOC		mgal			
						100%	N/A	CO		mgal			
						100%	N/A	CH ₂ O		mgal			
						100%	N/A	Pb		mgal			
						100%	N/A	HAPs		mgal			
						100%	N/A	CO ₂		mgal			
						100%	N/A	N.O		mgal			
						100%	N/A	GHG _{mass}		mgal			
						100%	N/A	CH ₄		mgal			
	Pile #1 (used for Aggregate transfer)					N/A	N/A	PM	0.0254	ton	5.17E+00	22.65	0.54
	Load in	203.93	tons per hour			N/A	N/A	PM ₁₀	0.0120	ton	2.45E+00	10.71	0.26
						N/A	N/A	PM _{2.5}	0.0018	ton	3.70E-01	1.62	0.04
	Load out	203.93	tons per hour			N/A	N/A	PM	0.0254	ton	5.17E+00	22.65	0.54
						N/A	N/A	PM ₁₀	0.0120	ton	2.45E+00	10.71	0.26
						N/A	N/A	PM _{2.5}	0.0018	ton	3.70E-01	1.62	0.04
	Vehicular Activity	6.44	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	7.6919	VMT	2.48E+01	108.43	2.60
						N/A	50%	PM ₁₀	2.1873	VMT	7.04E+00	30.83	0.74
						N/A	41%	PM _{2.5}	0.2187	VMT	8.29E-01	3.63	0.09
	Wind Erosion	0.25	acres			N/A	N/A	PM	0.1783	acre-hr	4.46E-02	0.20	0.00
						N/A	N/A	PM ₁₀	0.0892	acre-hr	2.23E-02	0.10	0.00
						N/A	N/A	PM _{2.5}	0.0134	acre-hr	3.34E-03	0.01	0.00
	Pile #2 (used for Sand transfer)					N/A	N/A	PM	0.0021	ton	3.25E-01	1.43	0.03
	Load in	156.14	tons per hour			N/A	N/A	PM ₁₀	0.0010	ton	1.54E-01	0.67	0.02
						N/A	N/A	PM _{2.5}	0.0001	ton	2.33E-02	0.10	0.00
	Load out	156.14	tons per hour			N/A	N/A	PM	0.0021	ton	3.25E-01	1.43	0.03
						N/A	N/A	PM ₁₀	0.0010	ton	1.54E-01	0.67	0.02
						N/A	N/A	PM _{2.5}	0.0001	ton	2.33E-02	0.10	0.00
	Vehicular Activity	4.93	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	7.6919	VMT	1.90E+01	83.03	1.99
						N/A	50%	PM ₁₀	2.1873	VMT	5.39E+00	23.61	0.57
						N/A	41%	PM _{2.5}	0.2187	VMT	6.35E-01	2.78	0.07
	Wind Erosion	0.25	acres			N/A	N/A	PM	0.2898	acre-hr	7.24E-02	0.32	0.01
						N/A	N/A	PM ₁₀	0.1449	acre-hr	3.62E-02	0.16	0.00
						N/A	N/A	PM _{2.5}	0.0217	acre-hr	5.43E-03	0.02	0.00
	Pile #3					N/A	N/A	PM		ton			
	Load in		tons per hour			N/A	N/A	PM ₁₀		ton			
						N/A	N/A	PM _{2.5}		ton			

	Load out			tons per hour			N/A	N/A	PM		ton			
							N/A	N/A	PM ₁₀		ton			
	Vehicular Activity			VMT per hour			N/A	N/A	PM _{2.5}		ton			
							N/A	N/A	PM		VMT			
	Wind Erosion			acres			N/A	N/A	PM ₁₀		VMT			
							N/A	N/A	PM		acre-hr			
							N/A	N/A	PM ₁₀		acre-hr			
							N/A	N/A	PM _{2.5}		acre-hr			
	Pile #4													
	Load in			tons per hour			N/A	N/A	PM		ton			
							N/A	N/A	PM ₁₀		ton			
	Load out			tons per hour			N/A	N/A	PM _{2.5}		ton			
							N/A	N/A	PM		ton			
	Vehicular Activity			VMT per hour			N/A	N/A	PM ₁₀		ton			
							N/A	N/A	PM _{2.5}		VMT			
	Wind Erosion			acres			N/A	N/A	PM		VMT			
							N/A	N/A	PM ₁₀		acre-hr			
							N/A	N/A	PM ₁₀		acre-hr			
							N/A	N/A	PM _{2.5}		acre-hr			
	Road #1		49.15	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	11.8780	VMT	2.92E+02	1,278.63	30.64
							N/A	50%	PM ₁₀	3.5059	VMT	8.62E+01	377.40	9.04
							N/A	41%	PM _{2.5}	0.3506	VMT	1.02E+01	44.46	1.07
	Road #2		20.51	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	11.8780	VMT	1.22E+02	533.60	12.79
							N/A	50%	PM ₁₀	3.5059	VMT	3.60E+01	157.50	3.77
							N/A	41%	PM _{2.5}	0.3506	VMT	4.24E+00	18.55	0.44



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

JUN 04 2018

Ms. Cynthia Stevenson
Dawkins On-Site LLC PORT-0774
P.O. Box 1096
Hartsville, SC 29551

RE: New Source Review - Permit Number:
Project Number: 2018-04-026; Installation Number: PORT-0774

Dear Ms. Stevenson:

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 is necessary for continued compliance. In addition, please note that Dawkins On-Site LLC PORT-0774 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.

Ms. Cynthia Stevenson
Page Two

If you have any questions, please do not hesitate to contact Chad Stephenson, 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:csj

Enclosures

c: Kansas City Regional Office
PAMS File: 2018-04-026

Permit Number: 062018-002