

STATE OF MISSOURI

PERMIT BOOK



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: **04 2015 - 001**

Project Number: 2014-10-050  
Installation Number: PORT-0709

Parent Company: APAC-Missouri, Inc.

Parent Company Address: P.O. Box 23910, Overland Park, Kansas 66283

Installation Name: APAC-Missouri, Inc.

Installation Address: 22600 Snow Road, Sedalia, Missouri 65301

Location Information: Pettis County, S23,24, T46N, R22W

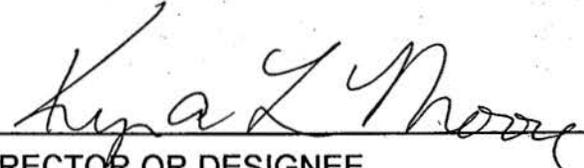
Application for Authority to Construct was made for:  
A new portable rock crushing plant with an MHDR of 400 tons per hour located at Sedalia Quarry in Sedalia, Missouri. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

APR 06 2015

EFFECTIVE DATE

  
\_\_\_\_\_  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

## 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 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 Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. 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 start up of these air contaminant sources.

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 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 at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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### 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."*

APAC-Missouri, Inc.  
Pettis County, S23,24, T46N, R22W

1. Emission Limitation - NAAQS
  - A. APAC-Missouri, Inc. shall maintain a daily record of material processed to demonstrate that the daily impact on ambient air quality from the entire installation does not exceed the daily NAAQS of 150.0  $\mu\text{g}/\text{m}^3$  for  $\text{PM}_{10}$  at or beyond the property boundary.
  - B. Attachment A or an equivalent form, such as an electronic form, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1.A.
2. Best Management Practices Requirement  
APAC-Missouri, Inc. shall control fugitive emissions from all of the haul roads and vehicular activity areas on-site by performing BMPs as defined in Attachment AA.
3. Moisture Content Testing Requirement
  - A. APAC-Missouri, Inc. 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).

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#### SPECIAL CONDITIONS:

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

- 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 APAC-Missouri, Inc. 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 3.A, another test may be performed within 15 days of the noncompliant test. If the results of that test are below the moisture content of Special Condition 3.A., APAC-Missouri, Inc. 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.
- 4. **Minimum Distance to Property Boundary Requirement**  
The primary emission point, primary crusher (EP-3), shall be located at least 500 feet from the nearest property boundary.
- 5. **Concurrent Operations**  
APAC-Missouri, Inc.- PORT-0709 is permitted to concurrently operate with other plants located at this site. APAC-Missouri, Inc. – PORT-0709 shall show compliance with this special condition by recording the ambient air quality impacts of all separate owner plants using the spaces provided in Attachment A, or an equivalent form, such as an electronic form, approved by the Air Pollution Control Program. Separate owner plants are plants other than PORT-0709 that are located at this site.
- 6. **Operational Requirement – Primary Crusher**  
APAC-Missouri, Inc. shall not bypass the primary crusher (EP-3) during operations. All material that is being processed shall go through the primary crusher before further processing is undergone.
- 7. **Record Keeping and Reporting Requirements**
  - A. APAC-Missouri, Inc. shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

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**SPECIAL CONDITIONS:**

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

These records shall include SDS for all materials used.

- B. APAC-Missouri, Inc. shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.
8. Relocation Requirement  
APAC-Missouri, Inc. PORT-0709 shall be moved off-site after applying for a relocation request, through Missouri Air Pollution Control Program. This request must be made prior to being located at this site (Sedalia Quarry in Sedalia, Missouri) for more than twenty-four consecutive months (two years). This special condition applies to all of the plant equipment except for the nonroad engines; nonroad engines must still be relocated after a maximum of twelve consecutive months at this site.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (6) REVIEW

Project Number: 2014-10-050  
Installation ID Number: PORT-0709  
Permit Number:

APAC-Missouri, Inc.  
22600 Snow Road  
Sedalia, Missouri 65301

Complete Application: February 12, 2015

Parent Company:  
APAC-Missouri, Inc.  
P.O. Box 23910  
Overland Park, Kansas 66283

Pettis County, S23,24, T46N, R22W

REVIEW SUMMARY

- APAC-Missouri, Inc. has applied for authority to construct a new portable rock crushing plant with an MHDR of 400 tons per hour.
- HAP emissions are not expected from the proposed equipment.
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to this installation.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- Moisture content of greater than 1.5% is being used to control the particulate matter emissions from the equipment in this permit.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM and PM<sub>10</sub> are above de minimis, but below the major source emission threshold. Potential emissions of all other pollutants are conditioned below de minimis levels.
- This installation is located in Pettis County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 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.
- Emissions testing is not required for the equipment.

- No Operating Permit is required for this installation because this is a portable plant.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

Sedalia Quarry, located in Sedalia, Missouri, contracts portable rock crushing plants to process the stockpiled rock into useful aggregate for third parties looking to purchase the processed aggregate. There are currently two plants, one portable rock crushing plant (PORT-0001) and one stationary asphalt plant (Permit #032008-007), owned by APAC-Missouri, Inc., that are used to process the stockpiles; APAC-Missouri, Inc. is seeking a construction permit to build a new portable rock crushing plant that will take the place of the existing rock crushing plant on-site. No permits have been issued to APAC-Missouri, Inc. - PORT-0709 from the Air Pollution Control Program.

## PROJECT DESCRIPTION

APAC-Missouri, Inc. is building a new portable rock crushing plant in Sedalia, Missouri at the Sedalia Quarry. This portable plant will replace the currently operated portable rock crushing plant on-site, and will have an MHDR of 400 tons per hour (tph). The secondary crushing and the fine screening will be operated at 200 tph. The new portable plant will consist of a primary crusher, secondary crusher, 2 screens, and 20 conveyors. Emissions for all operations were calculated assuming maximum possible production using the provided MHDRs; however, emissions for the diesel engine are not included in the PTE calculations because all of the equipment is being powered by a diesel engine that meets the definition of a nonroad engine as per 40 CFR 89.2. Inherent moisture content of greater than 1.5% was applied as a particulate matter control for all steps of the operation; no other controls are in place to reduce emissions of any type.

## EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 11.19.2, *Crushed Stone Processing and Pulverized Mineral Processing*. The control method of inherent moisture content greater than 1.5% water, by weight, was used to decrease particulate emissions from equipment and operations. BMPs are also being used on haul roads and vehicular activity areas on-site to reduce fugitive particulate matter emissions.

The following table provides an emissions summary for this project. There are no existing potential emissions and no existing actual emissions because this is all new equipment. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). New conditioned potential emissions account for the 24-hour NAAQS in-place to limit the PM<sub>10</sub> ambient

air quality impact.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2013 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	N/A	N/D	95.82	80.79
PM <sub>10</sub>	15.0	N/A	N/D	39.08	32.95
PM <sub>2.5</sub>	10.0	N/A	N/D	9.94	8.38
SO <sub>x</sub>	40.0	N/A	N/D	N/D	N/D
NO <sub>x</sub>	40.0	N/A	N/D	N/D	N/D
VOC	40.0	N/A	N/D	N/D	N/D
CO	100.0	N/A	N/D	N/D	N/D
GHG (CO <sub>2</sub> e)	75,000 / 100,000	N/A	N/D	N/D	N/D
HAPs	10.0/25.0	N/A	N/D	N/D	N/D

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

### AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 2 (below). The Air Pollution Control Program requires an AAQIA of PM<sub>10</sub> for all asphalt, concrete and rock-crushing plants regardless of the level of PM<sub>10</sub> emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL). The AAQIA was performed using the Air Pollution Control Program's generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the NAAQS for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS, the plant's production is limited to ensure compliance with the standard.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of 20 µg/m<sup>3</sup> of PM<sub>10</sub> in accordance with the Air Pollution Control Program's BMPs interim policy.

Table 2: Ambient Air Quality Impact Analysis

Pollutant	NAAQS (µg/m <sup>3</sup> )	Averaging Time	<sup>a</sup> Maximum Modeled Impact (µg/m <sup>3</sup> )	Limited Impact (µg/m <sup>3</sup> )	Background (µg/m <sup>3</sup> )	<sup>b</sup> Daily Limit (tons/day)
<sup>c</sup> PM <sub>10</sub> (solitary)	150.0	24-hour	165.15	130.00	20.00	8,094
<sup>d</sup> PM <sub>10</sub> (separate)	150.0	24-hour	N/A	40.0	110.0	3,600

<sup>a</sup>Maximum impact represents the 24-hour maximum ambient air quality impact of the portable plant.

<sup>b</sup>Daily production indirectly limited by the 24-hour NAAQS for PM<sub>10</sub>.

<sup>c</sup>Solitary operations include PORT-0709 only.

<sup>d</sup>Separate owner plants include all other plants except PORT-0709.

## 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 PM and PM<sub>10</sub> are above de minimis, but below the major source emission threshold. Potential emissions of all other pollutants are conditioned below de minimis levels.

## APPLICABLE REQUIREMENTS

APAC-Missouri, Inc. 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
- *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-6.405

## STAFF RECOMMENDATION

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

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Jordan Hindman  
New Source Review Unit

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Date

### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 13, 2014, received October 17, 2014, designating APAC-Missouri, Inc. as the owner and operator of the installation.



## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ....	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ...	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SDS</b> .....	Safety Data Sheet
<b>GHG</b> .....	Greenhouse Gas	<b>SIC</b> .....	Standard Industrial Classification
<b>gpm</b> .....	gallons per minute	<b>SIP</b> .....	State Implementation Plan
<b>gr</b> .....	grains	<b>SMAL</b> .....	Screening Model Action Levels
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>HAP</b> .....	Hazardous Air Pollutant	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>hr</b> .....	hour	<b>tph</b> .....	tons per hour
<b>hp</b> .....	horsepower	<b>tpy</b> .....	tons per year
<b>lb</b> .....	pound	<b>VMT</b> .....	vehicle miles traveled
<b>lbs/hr</b> .....	pounds per hour	<b>VOC</b> .....	Volatile Organic Compound
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		

Ms. Diane Tucker  
EHS Manager  
APAC-Missouri, Inc.  
P.O. Box 23910  
Overland Park, Kansas 66283

RE: New Source Review Permit - Project Number: 2014-10-050

Dear Ms. Tucker:

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, your new source review permit application and with your amended operating permit 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, Truman State Office Building, Box 1557, Jefferson City, MO 65102, website: [www.aa.mo.gov/ahc](http://www.aa.mo.gov/ahc).

If you have any questions regarding this permit, contact Jordan Hindman, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief

SH:jhl

Enclosures

c: Kansas City Regional Office  
PAMS File: 2014-10-050  
Permit Number: