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: 112006-015  Project Number: 2006-08-070 PORT-0570
Owner: K & D Crushing, Inc.
Owner's Address: 15343 East State Hwy. 8, Mineral Point, MO 63660
Installation Name: K & D Crushing PORT-0570
Installation Address: 15343 East State Hwy. 8, Mineral Point, MO 63660
Location Information: Iron County, S10, T34, R2W

Application for Authority to Construct was made for:
The modification of an existing portable rock crushing plant. Rock is processed through 1 crusher(s), and 1 conveyor(s). The portable rock crushing plant has a maximum hourly design rate (MHDR) of 268.0 tons per hour (tph). Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. 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 (listed as attachments starting on page 2) are applicable to this permit.

NOV 27 2006
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. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. 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 this (these) air contaminant source(s).

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 as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, 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 Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

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 Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.
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); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.010 paragraph (12)(A)10. “Conditions required by permitting authority”; by 10 CSR 10-6.010 “Ambient Air Quality Standards” and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

1. Portable Equipment Identification Requirement
   To assure that each component is properly identified as being a part of this portable rock crushing plant, (PORT-0570) K & D Crushing PORT-0570 shall provide and maintain suitable, 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 rock crushing plant.

2. Relocation of Portable Rock Crushing Plant
   A. If this portable rock crushing plant moves from the initial site reviewed in this permit (Doe Run Casteel Mine, Site ID No: 093-0031), then the portable rock crushing plant shall not be operated at any site location longer than 24 consecutive months without an intervening relocation.
   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 there are no other new plants at the site, then the application must be received by the Air Pollution Control Program at least seven (7) days prior to the relocation.
      2.) If the portable rock crushing plant is moving to a new site, or if there are other plants or equipment at the site that have not been evaluated for concurrent operation, then the application must be received by the Air Pollution Control Program at least twenty-one (21) days prior to the relocation. The application must include written notification of any concurrently operating plants.

3. Operating Permit Applicability
   If this portable rock crushing plant does not move from the initial site (Doe Run Casteel Mine, Site ID No: 093-0031) within 24 consecutive months, then K & D Crushing PORT-0570 shall submit an operating permit application. The Air Pollution Control Program must receive this application no later than 30 days after the exceedance of the 24 months.

4. Record Keeping Requirement
   The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources’ personnel upon request.

5. Superseding Condition
   The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (112003-010) from the Air Pollution Control Program.
SITE-SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 093-0031
Site Name: Doe Run Casteel Mine
Site Address: 15343 East State Hwy. 8, Mineral Point, MO 63660
Site County: Iron County, S10, T34, R2W

1. Best Management Practices
K & D Crushing PORT-0570 shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing Best Management Practices, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.

2. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM$_{10}$)
A. The operator(s) for K & D Crushing PORT-0570’s portable rock crushing plant (PORT-0570) shall ensure, while operating at this site, that the ambient impact of PM$_{10}$ at or beyond the nearest property boundary does not exceed 150 µg/m$^3$ in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
B. The total daily ambient impact of PM$_{10}$ at this site shall include the combined impact of the portable rock crushing plant and any ambient background concentration from installation or equipment located on the same site as the portable rock crushing plant.
C. To demonstrate compliance with special condition 2A, the operator(s) shall maintain a daily record of material processed.
   1.) During concurrent, same owner operations use Attachment A-1 or other equivalent form(s), for this purpose.
   2.) During concurrent, separate owners operations, use Attachment A-2, or other equivalent form(s), for this purpose.
   3.) During concurrent same and separate owners operations, also use Attachment A-2, or other equivalent form(s), for this purpose.

A. K & D Crushing PORT-0570 shall submit the enclosed testing plan to the Enforcement section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". K & D Crushing PORT-0570 shall contact the Enforcement section to obtain all requirements for testing, and the plan must be submitted to the Enforcement section at least 30 days prior to the proposed test date.
B. Testing must be performed no later than 60 days after achieving the maximum production rate of the process, and in any case no later than 180 days after initial startup. The performance test results shall be submitted to the Enforcement section no later than 30 days after completion of any required testing.

4. Moisture Content Testing Requirement for Inherent Moisture Content
A. The inherent moisture content of the rock will reduce particulate emissions. K & D Crushing PORT-0570 claimed the inherent moisture content of the processed rock to be greater than or equal to 1.5 wt.%, which shall be verified by testing.
B. Testing shall be conducted according to approved methods, such as those prescribed by the American Society for Testing Materials (ASTM D-2216 or C-566), EPA AP-42 Appendix C.2, or other method(s) approved by the Director. The first test shall be no later than 45 days after startup. Testing shall be conducted at least once every two years after the initial test, during the months of June through September, while the portable rock crushing plant is active at this site.
C. Test samples shall be obtained before processing (before entering the Primary Crusher, EP01) and after processing (prior to load-in to bins and/or storage piles). During the sample processing run only, any spray devices shall be turned off during the processing from which test samples are obtained. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed either on-site or at K & D Crushing’s main office.
SITE-SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

D. If the inherent moisture content result of the first test is less than 1.5 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.5 wt.%, K & D Crushing PORT - 0570 shall apply for a new construction permit to account for the revised information and install wet spray devices on the affected units.

5. Restriction on Process Configuration of Primary Emission Point(s)
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). K & D Crushing PORT- 0570 has designated the following unit(s) as the primary emission point(s) of the portable rock crushing plant: primary crusher (EP01). Bypassing the primary emission point(s) for processing is prohibited.

6. Restriction on Minimum Distance to Nearest Property Boundary
The primary emission point of the portable rock crushing plant, which is the primary crusher (EP01), shall be located at least 1,320 feet from the nearest property boundary whenever it is operating at this site.

7. Record Keeping Requirement
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources’ personnel upon request.

8. Reporting Requirement
The operator(s) shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.

9. Daily production limit
K & D Crushing PORT- 0570 shall not produce more than 3,711.8 tons per day.

10. Superseding Condition
The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (112003-010) from the Air Pollution Control Program.
TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

PROJECT DESCRIPTION

Rocks or ore are loaded into the crusher from a hoist coming from underground, after rocks are crushed a conveyor will transport them to the stock pile and will then be loaded into trucks and will shipped out. Processing equipment is powered with electric lines. The emission points are listed in the attached spreadsheet summary. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2]. The installation is located in Iron County, an attainment area for all criteria air pollutants. The company voluntarily accepted to take a limit of 3,711.8 tons per day (equivalent to 13.85 hours of operation per day) in order to comply with the risk assessment level and ambient air quality standard for lead.

The portable rock-crushing plant is permitted to operate under the following four (4) scenarios

- **Solitary Operation:** No other plants can operate at the site.
- **Concurrent, Same Owner:** The plant can operate with other asphalt, concrete, or rock-crushing plants owned by K & D Crushing, Inc.
- **Concurrent, Separate Owners:** The plant can operate with other asphalt, concrete, or rock-crushing plants owned by other companies.
- **Concurrent, Same and Separate Owners:** The plant can operate with other asphalt, concrete, or rock-crushing plants owned by K & D Crushing Inc at the same time as asphalt concrete, or rock-crushing plants owned by other companies.

K&D Crushing Portable Plant Port 0570 is crushing ore that contain 3% lead (Pb). Based on 24 hours operation the PM$_{10}$ conditioned Annual PM$_{10}$ (tpy) is 30.69 and the composite PM$_{10}$ Emission Factor (lbs of PM$_{10}$ per ton) is 0.0261. Based on the information was provided by the company that 3% of the rock content is lead (Pb) and based on the assumption that the percentage of lead in the particulate matter emissions is the same as the percentage in the ore. Therefore 3% of 30.69 will equal 0.9207 tons per year Lead emitted and 0.000783 is the lead composite emission factor

EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is PM$_{10}$ and Lead (Pb). The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section “Permit Documents”. Based on the conditioned potential emissions, the operation is considered a minor source under 10 CSR 10-6.060 section (6).

Table 1: Emissions Summary (tons per year)

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<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>30.69</td>
<td>17.71</td>
<td>N/A</td>
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<td>SOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>NOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>HAPs (non Lead)</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Lead</td>
<td>0.6</td>
<td>N/A</td>
<td>N/A</td>
<td>0.92</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable

* Conditioned potential based on daily production limit from ambient impact analysis. Other pollutants proportionately reduced.
Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 1,320 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m³ of PM₁₀ at or beyond the nearest property boundary in any single 24-hour period.

For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m³ of PM₁₀. To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130 µg/m³ of PM₁₀ at or beyond the nearest property boundary.

The portable rock crushing plant PORT 0570 is permitted to operate under four (4) scenarios. The PM₁₀ ambient impact record keeping requirements for each scenario are as follows.

- Solitary Operation.
- Concurrent, Same Owner: The portable rock-crushing plant must track its own daily PM₁₀ ambient impact AND the daily PM₁₀ ambient impact of other plants that are owned by K & D Crushing, Inc. Attachment A-1, or equivalent form(s), can be used for this purpose.
- Concurrent, Separate Owners: The portable rock crushing plant shall decrease its production to limit its daily PM₁₀ ambient impact to below 97.57 µg/m³. The portable rock crushing plant must track its own daily PM₁₀ ambient impact to ensure compliance with this limit. Attachment A-2, or equivalent form(s), can be used for this purpose. The plants owned by the other companies will then be allowed the remaining balance of 32.43 µg/m³.
- Concurrent, Same and Separate Owners: The portable rock crushing plant must track its own daily PM₁₀ ambient impact and that of any other plants owned by K & D Crushing, Inc to ensure that the combined daily PM₁₀ ambient impact from all plants is below 97.57 µg/m³. Attachment A-2, or equivalent form(s), can be used for this purpose. The remaining balance of 32.43 µg/m³ can be used by the plants owned by the other companies.

Table 2: Ambient Air Quality Impact Analysis of PM₁₀, 24-Hour Averaging Time

<table>
<thead>
<tr>
<th>Operation</th>
<th>Ambient Impact Factor (µg/m³·ton)</th>
<th>Modeled Impact (µg/m³)</th>
<th>*Background (µg/m³)</th>
<th>NAAQS (µg/m³)</th>
<th>Daily Production Limit (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Solitary</td>
<td>0.0004</td>
<td>2.86</td>
<td>20.00</td>
<td>150.00</td>
<td>3,711.8</td>
</tr>
<tr>
<td>2. Concurrent, Same Owner</td>
<td>0.0004</td>
<td>**</td>
<td>20.00</td>
<td>150.00</td>
<td>**</td>
</tr>
<tr>
<td>3. Concurrent, Separate Owners</td>
<td>0.0004</td>
<td>97.57</td>
<td>52.43</td>
<td>150.00</td>
<td>3,711.8</td>
</tr>
<tr>
<td>4. Concurrent Same and Separate Owners</td>
<td>0.0004</td>
<td>**</td>
<td>52.43</td>
<td>150.00</td>
<td>**</td>
</tr>
</tbody>
</table>

*Background PM₁₀ level of 20.00 µg/m³ from haul roads and stockpiles and 32.43 µg/m³ from the operation of asphalt, concrete, or rock-crushing plants owned by other companies.

** The operator(s) must balance production among concurrently operating plants owned by K & D Crushing. Such that NAAQS is not exceeded. The daily PM₁₀ ambient impact from other plants owned by K & D Crushing can be obtained from the operators of these plants.

Ambient impact modeling was performed for lead by using the Screen3 modeling program. The results showed that the Risk Assessment Level and NAAQS for lead will be in compliance with the daily and annually concentration of Lead as long as K&D Crushing PORT – 0570 operates within the voluntarily Daily production limit of 4,020 tons per day (equivalent to 15 hours of operation per day).
Table 3: RAL Analysis for Lead (Daily and Annually)

<table>
<thead>
<tr>
<th>Operation</th>
<th>Modeled Impact (µg/m³)</th>
<th>Operation sign</th>
<th>RAL (µg/m³), Average</th>
<th>Time Period</th>
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<tbody>
<tr>
<td>Primary Crusher</td>
<td>0.324</td>
<td>Less or equal</td>
<td>0.357</td>
<td>Daily</td>
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<tr>
<td>Conveyor</td>
<td>0.030</td>
<td>Less or equal</td>
<td>0.357</td>
<td>Daily</td>
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<tr>
<td>Total primary crusher and conveyor</td>
<td>0.354</td>
<td>Less or equal</td>
<td>0.357</td>
<td>Daily</td>
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|                     |                        |                |                       |            |
| Primary Crusher     | 0.064                  | Less or equal  | 0.07                  | Annual     |
| Conveyor           | 0.006                  | Less or equal  | 0.07                  | Annual     |
| Total primary crusher and conveyor | 0.070              | Less or equal  | 0.07                  | Annual     |

APPLICABLE REQUIREMENTS
The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110
- Operating Permits, 10 CSR 10-6.065
- No Operating Permit is required for this portable rock crushing plant
- If this portable rock crushing plant remains at the initial site reviewed in this permit longer than 24 consecutive months, then the owner shall submit an Operating Permit Application. The Air Pollution Control Program must receive this application no later than 30 days after the exceedance of 24 months.
- 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 10-3.090
- Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400
- Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not 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, I recommend this permit be granted with special conditions.

Samer Al-Shoukhi
Environmental Engineer
PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating K & D Crushing, Inc. as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition*.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southeast Regional Office Site Survey.
- Best Management Practices
Attachment A-1: Daily Ambient PM\textsubscript{10} Impact Tracking Record
K & D Crushing, Inc, 093-0031– Portable Rock crushing Plant
For Use During Concurrent Operation with Other Plants Owned by K & D Crushing, Inc.

Project Number: 2006-08-070
County, CSTR: Iron County (S10, T34, R2W)
Primary Unit Size: 268 tph
Distance to Nearest Property Boundary: 1,320 feet

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor (µg/m\textsuperscript{3}ton)</th>
<th>\textsuperscript{1}Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3})</th>
<th>\textsuperscript{2}Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3})</th>
<th>\textsuperscript{3}Back-ground PM\textsubscript{10} Level (µg/m\textsuperscript{3})</th>
<th>\textsuperscript{4}TOTAL PM\textsubscript{10} Level (µg/m\textsuperscript{3})</th>
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Note 1: The Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3}) for the portable rock crushing plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

Note 2: The Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3}) for the other plants owned by K & D Crushing can be obtained from the operator(s) of these plants. A value of zero (0) should be entered during solitary operations of the portable rock crushing plant.

Note 3: Background PM\textsubscript{10} Level (µg/m\textsuperscript{3}) is from Haul Roads and Stockpiles.

Note 4: The TOTAL PM\textsubscript{10} Level (µg/m\textsuperscript{3}) is calculated by summing the Daily PM\textsubscript{10} Ambient Impact(s) and the Background PM\textsubscript{10} Level. A TOTAL PM\textsubscript{10} Level of less than 150 µg/m\textsuperscript{3} in any 24-hour period indicates compliance.
### Attachment A-2: Daily Ambient PM$_{10}$ Impact Tracking Record

**K & D Crushing, Inc, 093-0031– Portable Rock crushing Plant**

For Use during Concurrent Operation with Plants Owned by Other Companies

Also For Use during Concurrent Operation with Plants Owned by Other Companies AND Plants Owned by K & D Crushing, Inc

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**Project Number:** 2006-08-070  
**County, CSTR:** Iron County (S10, T34, R2W)  
**Primary Unit Size:** 268 tph  
**Distance to Nearest Property Boundary:** 1,320 feet

This sheet covers the period from _______________ to _______________ (Month, Day, Year)  
*(Copy this sheet as needed.)*

<table>
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<th>Date</th>
<th>K &amp; D Crushing, Inc PORT 0570 PORT - 0570 Project # 2006-08-070</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor ($\mu$g/m$^3$/ton)</th>
<th>Daily PM$_{10}$ Impact ($\mu$g/m$^3$)</th>
<th>Daily PM$_{10}$ Impact ($\mu$g/m$^3$)</th>
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**Note 1:** The Daily PM$_{10}$ Impact ($\mu$g/m$^3$) for the Portable rock crushing plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

**Note 2:** The Daily PM$_{10}$ Impact ($\mu$g/m$^3$) for other plants owned by K & D Crushing can be obtained from the operators of these plants. A value of zero (0) should be entered if there are no other plants owned by K & D Crushing at the site.

**Note 3:** Background PM$_{10}$ Level ($\mu$g/m$^3$) is from Haul Roads and Stockpiles and from the operations of asphalt, concrete, or rock-crushing plants owned by other companies.

**Note 4:** TOTAL PM$_{10}$ Level ($\mu$g/m$^3$) is calculated by summing the Daily PM$_{10}$ Ambient Impact(s) and the Background PM$_{10}$ Level. A TOTAL PM$_{10}$ Level of less than 150 $\mu$g/m$^3$ in any 24-hour period indicates compliance.
Attachment AA: Best Management Practices (BMPs)- Construction Industry
Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

For Haul Roads:

1. **Pavement of Road Surfaces** –
   A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions” while the plant is operating.
   B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
   C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

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

3. **Usage of Documented Watering** –
   A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
   B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
   C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
   D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
   E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

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1 For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)
For Vehicle Activity Areas around Open Storage Piles:

1. **Pavement of Stockpile Vehicle Activity Surfaces** –
   A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
   B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
   C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. **Usage of Chemical Dust Suppressants** –
   A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
   B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
   C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. **Usage of Documented Watering** –
   A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
   B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
   C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
   D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
   E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
Ms. Kenda Hopkins  
Corp. Secretary  
K & D Crushing, Inc.  
15343 East State Hwy. 8  
Mineral Point, MO 63660

RE: New Source Review Permit - Project Number: 2006-08-070

Dear Ms. Hopkins:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions, if any, and the requirements in your permit.

Operation in accordance with the conditions and requirements in your permit, the New Source Review application submitted for project 2006-08-070, is necessary for continued compliance. The section of the permit entitled “Technical Review of Application for Authority to Construct” should not be separated from the main portion of your permit. The entire permit must be retained in your files. 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 have any questions regarding this permit, please contact me at (573) 751-4817, or write to the Department of Natural Resources’ Air Pollution Control Program, PO Box 176, Jefferson City, MO 65102. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KH: sak

Enclosures

c: Southeast Regional Office  
PAMS File: 2006-08-070  
Permit Number: