

## STATE OF MISSOURI



## DEPARTMENT OF NATURAL RESOURCES

### MISSOURI AIR CONSERVATION COMMISSION

## PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 082011-001      Project Number: 2011-06-025  
Installation Number: 099-0013

Parent Company: Unimin Corporation

Parent Company Address: 258 Elm Street, New Canaan, CT 06840

Installation Name: Unimin Corporation - Pevely Plant

Installation Address: 2968 Highway Z, Pevely MO, 63070

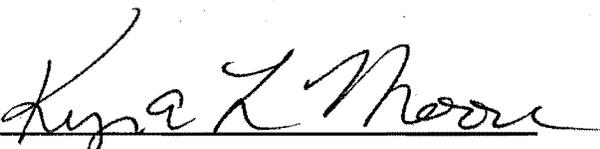
Location Information: Jefferson County, S21, T41N, R5E

Application for Authority to Construct was made for:  
Construction of a new screen and sand handling equipment. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

AUG 04 2011

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 departments' 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 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 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 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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| Page No.    | 3           |
| Permit No.  |             |
| Project No. | 2011-06-025 |

**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."*

Unimin Corporation - Pevely Plant  
Jefferson County, S21, T41N, R5E

1. Control Device Requirement- Wet Scrubber
  - A. Unimin Corporation - Pevely Plant shall control emissions from the following equipment using a wet scrubber as specified in the permit application.
    - 1) Screen (VS-208)
    - 2) Screw Conveyor (SC-205)
    - 3) Screw Conveyor (SC-206)
    - 4) Screw Conveyor (SC-207)
    - 5) Product Bin (BN-215)
    - 6) Product Bin (BN-216)
  - B. The wet scrubber shall be operated and maintained in accordance with the manufacturer's specifications. The wet scrubber shall be equipped with a gauge or meter, which indicates the pressure drop across the control device and the scrubbing fluid flow rate through the control device. These gauges or meters shall be located such that Department of Natural Resources employees may easily observe them.
  - C. Unimin Corporation - Pevely Plant shall monitor and record the operating pressure drop across the wet scrubber at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
  - D. Unimin Corporation - Pevely Plant shall maintain an operating and maintenance log for the wet scrubber 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.
2. Record Keeping Requirement  
Unimin Corporation - Pevely Plant 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.

Mr. Daniel Rowe  
Plant Manager  
Unimin Corporation - Pevely Plant  
2968 Highway Z  
Pevely, MO 63070

RE: New Source Review Permit - Project Number: 2011-06-025  
Installation ID: 099-0013

Dear Mr. Rowe:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "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 operating permit, if applicable, 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.

This permit authorizes construction of a screen (VS-208), two product bins (BN-215 and BN-216), three screw conveyors (SC-205, SC-206, and SC-207). The potential emissions of particulate matter (PM) were calculated using emission factors from AP-42 Section 11.19.1 "Sand and Gravel Processing," November 1995. Silt testing was conducted on the sand after the water screening and washing process, which is before the equipment authorized by this permit in the process flow. The results were submitted as part of the review for permit 072008-006 and show that no particles below ten microns are present in the sand. Since the sand is not crushed after the washing step there should not be any PM<sub>10</sub> or PM<sub>2.5</sub> generated during screening and handling.

Uncontrolled potential PM emissions from the new equipment are 197.10 tons per year, which is greater than the de minimis level for PM, so a permit is required. This permit contains a special condition requiring the operation of a wet scrubber to control PM emissions from the equipment. Because operation of the wet scrubber is required by an enforceable special condition, the emission reduction from the scrubber can be considered in the project's potential to emit. Considering the control device, the potential PM emissions from the new equipment are 2.96 tons per year, so this permit is being issued on 10 CSR 10-6.060 Section (5).

Mr. Daniel Rowe  
Page Two

You are still obligated to meet all applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating, 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.165 *Restriction of Emission of Odors*, and 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*.

Please be aware that New Source Performance Standards (NSPS) Subpart OOO applies to this new equipment. Any testing, monitoring or record keeping required by NSPS must be followed in order for this facility to remain in compliance.

A copy of this letter should be kept with the unit and be made available to Department of Natural Resources' personnel upon verbal request. If you have any questions regarding this determination, please contact Michael Mittermeyer at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kyra L. Moore  
Permits Section Chief

KLM:mml

c: St. Louis Regional Office  
PAMS File: 2011-06-025

Permit Number: