

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

January 14, 2003

**PERMIT TO INSTALL**

175-01B

**ISSUED TO**

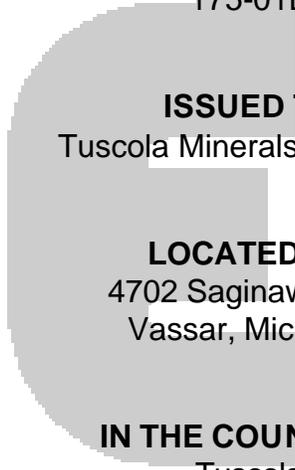
Tuscola Minerals Company

**LOCATED AT**

4702 Saginaw Road  
Vassar, Michigan

**IN THE COUNTY OF**

Tuscola



**STATE REGISTRATION NUMBER**

B7748

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article I, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

|   |            |
|---|------------|
| DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:<br><b>December 3, 2002</b> |            |
| DATE PERMIT TO INSTALL APPROVED:<br><b>January 14, 2003</b>                         | SIGNATURE: |
| DATE PERMIT VOIDED:   | SIGNATURE: |
| DATE PERMIT REVOKED:  | SIGNATURE: |

**Alphabetical Listing of Common Abbreviations/Acronyms used in this Permit to Install.**

| Common Acronyms |   | Pollutant/Measurement Abbreviations |   |
|-----------------|---|-------------------------------------|---|
| AQD             | Air Quality Division                                    | Btu                                 | British thermal unit  |
| BACT            | Best Available Control Technology                       | °C                                  | Degrees Celsius   |
| CAA             | Clean Air Act   | CO                                  | Carbon monoxide   |
| CEM             | Continuous Emission Monitoring                          | dscf                                | Dry standard cubic foot                                     |
| CFR             | Code of Federal Regulations                             | dscm                                | Dry standard cubic meter                                    |
| COM             | Continuous Opacity Monitoring                           | °F                                  | Degrees Fahrenheit  |
| EPA             | Environmental Protection Agency                         | gr                                  | Grains  |
| EU              | Emission Unit   | Hg                                  | Mercury   |
| GACS            | Gallon of Applied Coating Solids                        | hr                                  | Hour  |
| GC              | General Condition                                       | H <sub>2</sub> S                    | Hydrogen sulfide  |
| HAP             | Hazardous Air Pollutant                                 | hp                                  | Horsepower  |
| HVLP            | High Volume Low Pressure *                              | lb                                  | Pound   |
| ID              | Identification  | m                                   | Meter   |
| LAER            | Lowest Achievable Emission Rate                         | mm                                  | Millimeter  |
| MACT            | Maximum Achievable Control Technology                   | MM                                  | Million   |
| MAP             | Malfuction Abatement Plan                               | MW                                  | Megawatts   |
| MDEQ            | Michigan Department of Environmental Quality            | NO <sub>x</sub>                     | Oxides of Nitrogen  |
| MSDS            | Material Safety Data Sheet                              | PM                                  | Particulate matter  |
| NESHAP          | National Emission Standard for Hazardous Air Pollutants | PM-10                               | Particulate matter less than 10 microns aerometric diameter |
| NSPS            | New Source Performance Standards                        | pph                                 | Pound per hour  |
| NSR             | New Source Review                                       | ppm                                 | Parts per million   |
| PSD             | Prevention of Significant Deterioration                 | ppmv                                | Parts per million by volume                                 |
| PTE             | Permanent Total Enclosure                               | psia                                | Pounds per square inch absolute                             |
| PTI             | Permit to Install                                       | psig                                | Pounds per square inch gauge                                |
| RACT            | Reasonably Available Control Technology                 | scf                                 | Standard cubic feet   |
| SC              | Special Condition                                       | sec                                 | Seconds   |
| SCR             | Selective Catalytic Reduction                           | SO <sub>2</sub>                     | Sulfur dioxide  |
| SRN             | State Registration Number                               | THC                                 | Total hydrocarbons  |
| TAC             | Toxic Air Contaminant                                   | tpy                                 | Tons per year   |
| VE              | Visible Emissions                                       | µg                                  | Microgram   |
|                 |   | VOC                                 | Volatile organic compounds                                  |
|                 |   | yr                                  | Year  |

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **[R 336.1201(1)]**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, PO Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **[R 336.1201(4)]**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **[R 336.1201(6)(b)]**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **[R 336.1201(8), Section 5510 of Act 451, PA 1994]**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **[R 336.1219]**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **[R 336.1901]**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **[R 336.1912]**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA Act 451, as amended and the rules promulgated thereunder.
11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **[R 336.1301]**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this permit to install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **[R 336.1370]**
13. Except as allowed by Rule 285 (a), (b), and (c), the permittee shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application, without prior notification to and approval by the Air Quality Division. **[R 336.1201(1)]**
14. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **[R 336.2001]**

**SPECIAL CONDITIONS**

**Emission Unit Identification**

| <b>Emission Unit ID</b>  | <b>Emission Unit Description</b>   | <b>Stack Identification</b> |
|--|--|-----------------------------|
| EUDRYER1   | Natural gas/oil fired, 7 foot diameter by 45 feet long Link Belt kiln with Hauck burner model #JBC7190 | SVDRYER131                  |
| Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290. |  |                             |

**The following conditions apply to: EUDRYER1**

**Emission Limits**

|   | <b>Pollutant</b> | <b>Equipment</b> | <b>Limit</b>                       | <b>Time Period</b>           | <b>Testing/<br/>Monitoring<br/>Method</b> | <b>Applicable<br/>Requirement</b> |
|---|------------------|------------------|------------------------------------|------------------------------|---|-----------------------------------|
| 1.1a  | PM               | EUDRYER1         | 0.10 lb per 1,000 lbs <sup>1</sup> | Per Test Method              | GC 14                                     | R 336.1331(1)(a)                  |
| 1.1b  | NO <sub>x</sub>  | EUDRYER1         | 88.3 tpy                           | 12-month rolling time period | GC 14                                     | R 336.1205                        |
| 1.1c  | CO               | EUDRYER1         | 15.80 tpy                          | 12-month rolling time period | GC 14                                     | R 336.1205                        |
| <sup>1</sup> pounds per 1,000 pounds of exhaust gases calculated on a dry gas basis |                  |                  |                                    |                              |   |                                   |

**Process/Operational Limits**

- 1.2 The permittee shall not operate EUDRYER1 for more than 2550 hours per 12-month rolling time period as determined at the end of each calendar month. **[R 336.1205]**
- 1.3 The permittee shall only burn natural gas or No. 2 fuel oil in EUDRYER1. **[R336.1201(3), R336.1205]**
- 1.4 The No. 2 fuel oil usage for EUDRYER1 shall not exceed 150,000 gallons per 12-month rolling time period as determined at the end of each calendar month. **[R 336.1205]**

**Recordkeeping/Reporting/Notification**

- 1.5 The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of EUDRYER1. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R 336.1205]**
- 1.6 The permittee shall keep records of monthly No. 2 fuel oil consumption rate in EUDRYER1. All records shall be kept on file for at least five years and made available to the Department upon request. **[R 336.1205]**

**Stack/Vent Restrictions**

|   | <b>Stack &amp; Vent ID</b> | <b>Maximum<br/>Dimensions (inches)</b> | <b>Minimum Height Above<br/>Ground Level (feet)</b> | <b>Applicable<br/>Requirement</b> |
|---|----------------------------|--|---|-----------------------------------|
| 1.7   | SVDRYER131                 | 30 x 30                                | 31  | R 336.1901                        |
| The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air. |                            |  |   |                                   |