

## SUPPLEMENT TO PERMIT NO. 1139-91A

Boride Engineered Abrasives  
Traverse City, Michigan

November 12, 1997

### GENERAL CONDITIONS

1. Rule 201(1) - The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, 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.
2. Rule 201(4) - If the installation, reconstruction, relocation, or alteration 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 person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install.
3. Rule 201(6)(a) - If this Permit to Install is issued for a process or process equipment located at a stationary source which is subject to a Renewable Operating Permit pursuant to Rule 210, trial operation is allowed if the equipment performs in accordance with the terms and conditions of this Permit to Install and until the appropriate terms and conditions of this Permit to Install have been incorporated into the Renewable Operating Permit as a modification pursuant to Rule 216 or upon renewal pursuant to Rule 217. Upon incorporation of the appropriate terms and conditions into the Renewable Operating Permit, this Permit to Install shall become void.
4. Rules 201(7)(a) or 216(1)(a)(v)(A) - Except as provided in General Condition No. 3, operation of the process or process equipment is allowed if, not more than 30 days after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by this Permit to Install, the person to whom this Permit to Install was issued, or the authorized agent pursuant to Rule 204, notifies the District Supervisor, Air Quality Division, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, alteration, or modification is considered to occur not later than commencement of trial operation of the process or process equipment.
5. Rule 201(7)(b) - Except as provided in General Condition No. 3, not more than 18 months after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by this Permit to Install, the person to whom this permit was issued, or the authorized agent pursuant to Rule 204, shall notify the District Supervisor, Air Quality Division, in writing, of the status of compliance of the process or process equipment with the terms and conditions of the Permit to Install. The notification shall include all of the following:
  - A. The results of all testing, monitoring, and recordkeeping performed to determine the actual emissions from the process or process equipment and to demonstrate compliance with the terms and conditions of the Permit to Install.
  - B. A schedule of compliance for the process or process equipment as described in Rule 119(a).

- C. A statement, signed by the person owning or operating the process or process equipment, that, based on information and belief formed after reasonable inquiry, the statements and information in the notification are true, accurate, and complete.
6. Rule 201(8) and Section 5510 of Act 451, P.A. 1994 - 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 Departments' rules or the Clean Air Act.
  7. 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 Rule 219 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 in Rule 219(1)(a), (b) and (c). The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality.
  8. Rule 901 - 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.
  9. Rule 912 - The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. 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 District Supervisor within 10 days, with the information required in this rule.
  10. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future regulations which may be promulgated under Part 55 of Act 451, P.A. 1994.
  11. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
  12. Operation of this equipment may be subject to other requirements of Part 55 of Act 451, P.A. 1994, and the rules promulgated thereunder.

#### SPECIAL CONDITIONS

13. Rule 331 - The particulate emission from the blenders", shall not exceed 0.01 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis.
14. The volatile organic compound, hereafter referred to as "VOC", emission rate from the phenolic resin infusion stone treatment process, hereafter referred to as "resin stone treat" shall

not exceed 3.0 pounds per hour nor 13.0 tons per year. These limits are based on a maximum resin usage rate of 1.6 gallons per hour and 13,200 gallons per year.

15. The formaldehyde emission from the resin stone treat shall not exceed 12.3 milligrams per cubic meter, corrected to 70°F and 29.92 inches Hg.
16. The sulfur dioxide emission rate from the sulfur infusion stone treatment process, hereafter referred to as "sulfur stone treat", shall not exceed 0.01 pounds per hour nor 0.05 tons per year.
17. There shall be no visible emissions from the mixers and presses, resin stone treat and/or sulfur stone treat.
18. Rules 1001, 1003 and 1004 - Verification of VOC, formaldehyde and/or particulate emission rates from the mixers and presses, resin stone treat and/or sulfur stone treat by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following the receipt of the written notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete test plan must be submitted to the Air Quality Division. The final plan must be approved by the Division prior to testing and a complete report of test results must be submitted to the Division within 60 days following the last date of testing.
19. Applicant shall not operate the mixers and presses unless the baghouse is installed and operating properly.
20. The disposal of collected air contaminants shall be performed in a manner which minimizes the introduction of air contaminants to the outer air.
21. The exhaust gases from the mixers and presses, when exhausted outside the building, shall be discharged unobstructed vertically upwards to the ambient air from a stack with maximum dimensions of 36 inches by 36 inches at an exit point not less than 14 feet above ground level.
22. The exhaust gases from the resin stone treat shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 20 inches at an exit point not less than 28 feet above ground level.
23. The exhaust gases from the sulfur stone treat shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 12 inches at an exit point not less than 33 feet above ground level.
24. Monthly records of the quantity of resin used in the resin stone treat shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.