



Environmental Protection and Growth Management Department
POLLUTION PREVENTION DIVISION – AIR QUALITY PROGRAM
One North University Drive, Suite 203, Plantation, Florida 33324
954-519-1260 • FAX 954-519-1495

NOTICE OF AIR POLLUTION PERMIT

ISSUED TO:

PERMITTEE:

Specialty Vermiculite Corp
Authorized Representative:
Mr. Derek Cusack, Senior V.P.
Specialty Vermiculite Corp.
1 Bala Avenue, Suite: 3102
Cynwyd, PA 19004

AIRS ID NO: 0110003

Permit Number: 0110003-004-AO

Issue Date: August 28, 2014

Expiration Date: August 16, 2019

Facility Name: Specialty Vermiculite Corp. is located at 1200 N.W. 15th Avenue, Pompano Beach, Broward County, Florida.

Project Description: Operation permit renewal of 0110003-003-AO. No changes are requested. The Standard Industrial Classification (SIC) Code is 3299 and the North American Industry Classification Standard (NAICS) Code is 327799.

Lat/Long: 26°14'32" N / 80°08'33"

UTM: Zone 17; 586.60 Km. E; 2902.80 Km. N

Statement of Basis: This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) Florida Administrative Code (F.A.C.) Rules 62-4 and 62-210 through 62-297 (permitting requirements) and Broward County Code, Chapter 27 (emission limitations) and in conformance with all existing regulations of the Florida Department of Environmental Protection (FDEP). The above named Permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Broward County Pollution Division (PPD) and made a part hereof.

This permit is organized as follows:

1. Facility Description
2. General Conditions
3. Facility-wide Conditions
4. Emissions Unit Specific Conditions

Executed in Broward County, Florida

Robert C. Wong
Environmental Licensing Manager

1. FACILITY DESCRIPTION

Specialty Vermiculite Corp, formerly W. R. Grace & Company, operates an expanded perlite, vermiculite and textured products manufacturing facility. Vermiculite and perlite are both processed through separate furnaces. The process consists of adding heat and expanding the products into lightweight materials. After being processed, they are packaged in either 4 cubic foot bags; or 64 cubic foot bulk bags. The textured products manufacture consist of a simple mixing operation. The raw materials are added, mixed and bagged.

The flow diagram is shown below:

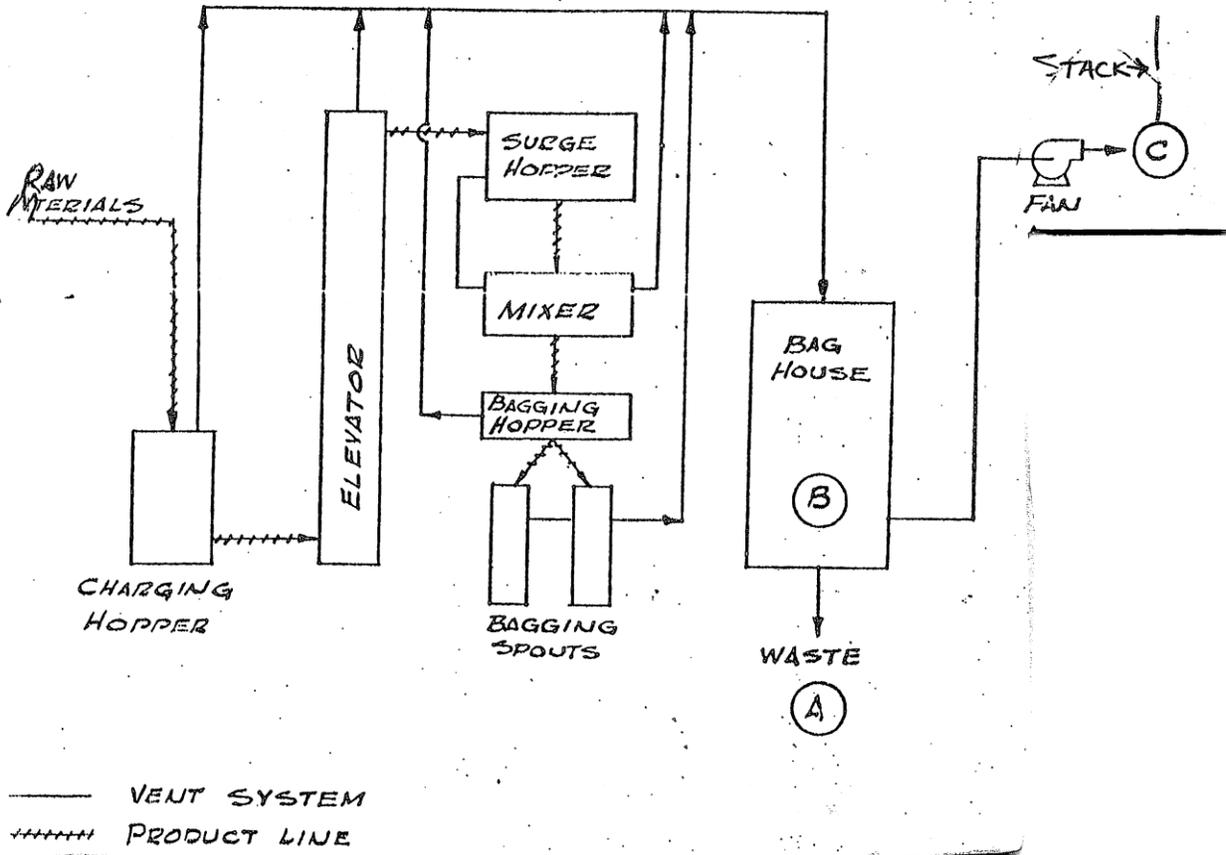


FIGURE NO. 1 – FLOW DIAGRAM

The facility consists of the following emissions units:

<u>E.U. ID</u> <u>No.</u>	<u>Brief Description</u>
001	A vermiculite exfoliation plant producing 1.0 ton/hour of vermiculite with a natural gas-fired furnace, a 54 inch diameter W. R. Grace & Company cyclone and a Micro Pulsaire Model IFI fabric dust collector controlling particulate matter. The emissions are discharged approximately 45 feet above ground level.
002	A perlite expanding plant that uses a natural gas-fired furnace to produce 1.0 ton/hours of perlite with a 69 inch diameter cyclone and Flex Kleen Model 84RA160 dust collector, both manufactured by the Perlite Corporation, controlling particulate matter emissions, which are discharged approximately 44 feet above ground level. .
003	A textured products mixing facility producing 2.0 tons/hour of textured products with a common Micro Pulsaire Model IFI dust collector controlling particulate matter. The emissions are discharged approximately 50 feet above ground level.

2. GENERAL CONDITIONS

1. Terms of Permit. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The Permittee is placed on notice that the PPD will review this permit periodically and may initiate enforcement action for any violation of these conditions.
[Rule 62-4.160 (1), F.A.C.]
2. Permit Validity. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the PPD.
[Rule 62-4.160 (2), F.A.C.]
3. Disclaimer. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, or any violations of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other permit that may be required for other aspects of the total project which are not addressed in this permit.
[Rule 62-4.160 (3), F.A.C.]
4. Disclaimer. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interest have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
[Rule 62-4.160 (4), F.A.C.]
5. Liability. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the Permittee to cause pollution in contravention of Florida Statutes and FDEP rule, unless specifically authorized by an order from the PPD.
[Rule 62-4.160 (5), F.A.C.]
6. Operation and Maintenance. The Permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the Permittee to achieve

compliance with the conditions of this permit, as required by county and state rules. This provision included the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by PPD and FDEP rules.
[Rule 62-4.160 (6), F.A.C.]

7. Onsite Inspection Activities. The Permittee, by accepting this permit, specifically agrees to allow authorized PPD personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times (depending on the nature of the concern being investigated), access to the premises where the permitted activity is located or conducted to:
 - (a) Have access to and copy any records that must be kept under conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or PPD and FDEP rules.[Rule 62-4.160 (7), F.A.C.]
8. Notice of Noncompliance. If, for any reason, the Permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the Permittee shall immediately provide PPD with the following information:
 - (a) A description of and cause of noncompliance; and
 - (b) The period of noncompliance, including dates and times, or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee shall be responsible for any enforcement action by PPD for penalties or for revocation of this permit.[Rule 62-4.160 (8), F.A.C.]
9. Reporting Noncompliance. The Permittee shall report any periods of noncompliance to the PPD immediately by phone at 954-519-1499 or by Email at EPDHOTLINE@broward.org. This also applies when the period of non-compliance is first determined after normal business hours or on weekends and holidays.
[Rules 62-4.130 and 62-4.070(3), F.A.C.]
10. Evidence Materials. By accepting this permit, the Permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted facility or activity, that are submitted to the PPD, may be used by the PPD as evidence in any enforcement proceeding arising under the Florida Statutes or F.A.C. rules, except where such use is prohibited by Section 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
[Rule 62-4.160 (9), F.A.C.]
11. Rule Changes. The Permittee agrees to comply with changes in Florida Department of Environmental Protection rules and Florida Statutes after a reasonable time for compliance; provided, however, the Permittee does not waive any other rights granted by Florida Statutes or FDEP rules.
[Rule 62-4.160 (10), F.A.C.]
12. Permit Transfer. This permit is transferable only upon PPD approval in accordance with Rule 62-4.120 and 62-730.300 F.A.C., as applicable. The Permittee shall be liable for any non-compliance of the permitted activity until the transfer approved by the PPD.
[Rule 62-4.160 (11), F.A.C.]
13. Work Site Copy. This permit or a copy thereof shall be kept at the work site of the permitted activity.
[Rule 62-4.160 (12), F.A.C.]

14. Miscellaneous Compliance Requirements. The Permittee shall comply with the following:
- (a) Upon request, the Permittee shall furnish all records and plans required under FDEP rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the PPD.
 - (b) The Permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recording for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by PPD rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed.
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used;
 - 6. The results of such analyses.[Rule 62-4.160 (14), F.A.C.]
15. Information Submittal. When requested by the PPD, the Permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the Permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the PPD, such facts or information shall be corrected promptly.
[Rule 62-4.160 (15), F.A.C.]
16. Rules Adoption. Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, as amended, are adopted by Broward County Code, Sec. 27-173.
[Broward County Code, Sec. 27-173]

3. FACILITY-WIDE CONDITIONS

17. Unconfined Emissions of Particulate Matter. No person shall cause, let, permit, suffer, or allow the emissions of particulate matter, from any source whatsoever, including but not limited to vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrial related activities such as loading, unloading, storing, handling, without taking reasonable precautions.
- Reasonable Precautions to Control Particulate Matter:
Reasonable precautions may include but shall not be limited to the following.
- (1) Paving and maintenance of roads, parking areas and yards.
 - (2) Application of water to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - (3) Application of asphalt, water or other dust suppressants to unpaved roads, yards, open stock piles and similar sources.
 - (4) Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the source to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - (5) Landscaping or planting of vegetation.
 - (6) Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.

- (7) Confining abrasive blasting where possible.
- (8) Enclosure or covering of conveyor systems
[Rule 62-296.320(4) (c), F.A.C.; Broward County Code, Sec. 27-177(b)]
18. Concealment. No person shall build, erect, install, or use any article, machine, equipment or other contrivance, the use of which will conceal any emission which would otherwise constitute a violation of any provisions of Broward County Codes.
[Rule 62-4.070(3), F.A.C. and Broward County Code, Sec. 27-175(b)]
19. Circumvention. No person shall circumvent any air pollution device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.
[Rule 62-210.650 F.A.C and Broward County Code, Sec. 27-175(c)]
20. Maintenance. No person shall operate any air pollution control equipment or systems without proper and sufficient maintenance to assure compliance with Broward County Codes.
21. Special Compliance Tests. When PPD, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a PPD rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the PPD.
[Rule 62-297.310(7) (b), F.A.C.]
22. Objectionable Odor. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C. and Broward County Code, Sec. 27-175(e)]
23. General Visible Emissions Standard. Unless otherwise specified by permit or rule, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20 percent opacity.
[Rule 62-296.320(4) (b), F.A.C., and *DEP Guidance, March 2000, DARM-PER 33*]
24. Operating Permit Renewal. Sixty (60) days before the expiration date of this permit, the Permittee shall apply for a renewal of the permit using the forms incorporated by reference in the specific rule chapter for this type of permit. A renewal application shall be timely and sufficient. If the application is submitted prior to the days specified above before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the PPD or, if there is court review of the PPD's final agency action, until a later date is required by Section 120.60, Florida Statutes.
[Rule 62-4.090, F.A.C.]
- Permitting Note: The permittee may also elect to submit the application electronically using the Electronic Permit Submittal and Processing system (EPSAP) via the <http://www.dep.state.fl.us/air/emission/epsap/default.htm> website, along with the processing fee established in Rule 62-4.050(4), F.A.C. , [62-4.090(1) and 62-4.050(4), F.A.C].
25. Asbestos Containing Materials. The facility shall not process ore containing asbestos.
[Rule 62-4.07093), F.A.C.]

4. EMISSIONS UNIT SPECIFIC CONDITIONS

Subsection A. This section addresses the following emissions units.

E.U. ID No.	Description of Emissions Unit
001	A vermiculite exfoliation plant producing 1.0 ton/hour of vermiculite with a natural gas-fired furnace, a 54 inch diameter W. R. Grace & Company cyclone and a Micro Pulsaire Model IFI fabric dust collector controlling particulate matter. The emissions are discharged approximately 45 feet above ground level.
002	A perlite expanding plant that uses a gas-fired furnace to produce 1.0 ton/hour of perlite with a 69 inch diameter cyclone and Flex Kleen Model 84RA160 dust collector, both manufactured by the Perlite Corporation, controlling particulate matter emissions, which are discharged approximately 44 feet above ground level.

Specific Conditions

Emission Limiting Standards

26. **Particulate Matter Emission Standard:** No person shall cause, let, permit, suffer or allow the emission of particulate matter through a stack or vent, from any emissions unit subject to this rule in total quantities in excess of the amount shown in Table 296.320-1. This condition applies to EU#001. Interpolation and extrapolation of the data for process weight rates up to 30 tons per hour shall be accomplished by use of the following equation:

$E = 3.59P^{0.62}$, where P is less than or equal to 30 tons per hour, E is emissions in pounds per hour and P is process weight rate in tons per hour.

[Rule 62-296.320(4) (a) (2), F.A.C.]

27. **Allowable Fuel:** The fuel used in the perlite expanding and vermiculite exfoliation plants shall be limited to natural gas.

[Rule 62-4.070(3), F.A.C. and requested by the permittee on the permit application dated June 15, 2004.]

Compliance Testing Requirements

28. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emission unit shall have a formal compliance test conducted for visible emissions as follows:

The compliance test report shall include test results for the following methods:

<u>Source/ Emission Point</u>	<u>Pollutant</u>	<u>Test Method</u>	<u>Frequency</u>
Each stack	Visible Emissions	EPA Method 9	Every fiscal year
Each stack	Particulate Matter	EPA Method 5	Every fiscal year

EPA Visible Emissions Method 9 results of 5% or less will be accepted in lieu of EPA Particulate Matter Method 5. If visible emissions exceed 5% opacity, the permittee must perform concurrent particulate matter and visible emissions testing.

[Rule 62-297.310(7) (a) 4. F.A.C.]

29. Testing of visible emissions shall be conducted with emission unit(s) operating at permitted capacity. If it is impracticable to test at permitted capacity, an emission unit may be tested at less than the minimum

permitted capacity; in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rule 62-297.310(2), F.A.C.]

30. Observation Period: The required minimum period of observation for visible emissions testing shall be thirty (30) minutes.

[Rule 62-297.310(4) (a) 2. F.A.C.]

31. Observation Intervals. Visible emission observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

[Rule 62-297.401(9) (c) 1, F.A.C.]

Notification requirements

32. The owner or operator shall notify the PPD at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

[Rule 62-297.310(7)(a)9., F.A.C.]

Recordkeeping and Reporting Requirements

33. Compliance Test Report. The compliance test report shall provide the following information on the air pollution control devices:

- a. General condition of the equipment (date of last thorough inspection and results of that inspection).

Also note any deficiencies with the equipment which occur during testing.

- b. Normal operating parameters of the equipment and the actual operating parameters for each test run (describe how each parameter was determined)

i. Pressure drop across the baghouse

ii. Baghouse inlet temperature

iii. Process rate

[Rule 62-297.310(8) (c), F.A.C.]

34. Copies of all compliance reports, tests, notifications or other submittals required by this permit shall be submitted to the PPD, as soon as practical but no later than forty-five (45) days after the last test is completed.

[Rule 62-297.310(8)(b), F.A.C.]