

217/782-2113

LIFETIME OPERATING PERMIT

PERMITTEE

Rhodia, Inc.- Chicago Heights  
Attn: Wayne Jurgerson  
1020 State Street  
Chicago Heights, Illinois 60411

Application No.: 04080041

I.D. No.: 031045ANZ

Applicant's Designation:

Date Received: August 4, 2004

Subject: Silica Plant

Date Issued: January 21, 2005

Expiration Date: See Condition 1.

Location: 1020 State Street, Chicago Heights

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

- (P-92a) Silica Bins T-500-1 Controlled by Filter (C-80)
- (P-92b) Silica Bins T-500-2 Controlled by Filter (C-80)
- (P-93a) Silica Product Bins (T-520-1 Controlled Filter (C-81a)
- (P-93b) Silica Product Bins (T-520-2 Controlled Filter (81b)
- (P-94a) Silica Bins T-535-1 Controlled by Filter (C-82a)
- (P-94b) Silica Bins T-535-2 Controlled by Filter (C-82b)
- (P-95) Silica Product Bin T-545 Controlled by Filter (C-83)
- (P-96) Bin Receiver T-504 controlled by Filter (C-84)
- (P-97a) Packaging Z-577 controlled by Filter (C-85)
- (P-97b) Packaging Z-578 controlled by Filter (C-85)
- (P-98) Densifier Feed Bin T-570 Filter (C-86)
- (P-99) Recycle Feed Bin (T-584) controlled by Filters (C-87a and 87b)
- (P-100) Silica Bin T-530 controlled by Filter (C-88)
- (P-101) Silica Bin T-540 controlled by Filter (C-89)
- (P-102) Recycled Silica Bin T-560 controlled by Filter (C-90)
- (P-103) Silica Mill Feed Bin controlled by Filter (C-91)
- (P-104) Silica Mill Filter Hopper V556 controlled by Filter (C-92)
- (P-105) Spray Dryer H-400 Firing Rate: 53.6 mmBtu/hr controlled by Filters (C93a and 93b)
- (P-106a) Silica Bin Bulk Loading T-510 controlled by Filter (C-94a)
- (P-106b) Silica Bin Bulk Loading T-520-2 controlled by Filter (C-94b)
- (P-106c) Silica Bin Bulk Loading T-535-1 controlled by Filter (C-94c)
- (P-106d) Silica Bin Bulk Loading T-535-2 controlled by Filter (C-94d)

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This permit shall expire 180 days after the Illinois EPA sends a written request for the renewal of this permit.
- b. This permit shall terminate if it is withdrawn or is superseded by a revised permit.

2. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
3. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
4. This permit is issued based on the condition that only natural gas is used to fire the boiler.
- 5a. Emissions and operation of the equipment shall not exceed the following limits:

<u>Source No.</u>	<u>Source</u>	<u>Particulate Matter Emissions</u>	
		<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>
P-93a, P-93b, P-94a	Silica Product Bin T-500-1, T-500-2,		
P-94b and P-95	T-535-1, T-535-2, and T-545	0.110	0.49
P-97a and P-97b	Silica Packaging Z-577 and Z-578	0.21	0.90
P-98	Densifier Feed Bin T-570	0.17	0.75
P-99	Recycle Feed Bin T-584	0.17	0.75
P-100, P-101, and	Bins T-530, T-540 and T-560		
P-102		0.17	0.75
P-103	Silica Mill Feed Bin T-550	0.11	0.49
P-104	Silica Mill Filter Hopper V-556	0.39	1.73
P-105	Spray Dryer (Atomizer) H-400 (With Reactors)	5.96	<u>26.09</u>
		Total:	<u>31.95</u>

These limits are based on the manufacturer's guaranteed emission rates, the maximum air flow rates, and the maximum operating hours (8,760 hours/year) each source. Compliance with the annual limit shall be determined from a running total of 12 months of data.

- b. This permit is issued based on negligible emissions of particulate matter from each Bin T-500-1, T-500-2, T-504, T-510, T-520-2, T-535-1, and T-535-2. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- c. Operation and emission of the dryer combined shall not exceed the following limits:

- i. Natural Gas Usage: 46.2 mmscf/month, 460.32 mmscf/year

<u>Pollutant</u>	<u>Emission Factor</u> <u>(Lb/mmscf)</u>	<u>Emissions</u>	
		<u>(lb/Hour)</u>	<u>(Tons/Yr)</u>
Nitrogen Oxides (NO <sub>x</sub> )	21*	1.10	4.83
Carbon Monoxide (CO)	35*	1.84	8.06
Particulate Matter (PM)	7.6	0.40	1.75
Volatile Organic Material (VOM)	5.5	0.29	1.27
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.03	0.14

These limits are based on the maximum boiler operation, stack test for NO<sub>x</sub>, manufacturers specifications for CO, and standard emission factors given by AP-42 table 1.4-1 and 1.4-2 July 1998 for PM, SO<sub>2</sub>, and VOM. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

6. The Permittee shall maintain monthly records of the following items:
- Hours of operation for each emission equipment/process listed in Condition 5a;
  - PM emissions for each emission equipment/process listed in Condition 5a with supporting calculations (tons/month and tons/year);
  - Records of inspection and periodic maintenance on air pollution control equipment with date and description of activity; and
  - Natural gas usage (mmscf/month and mmscf/year).
7. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
8. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

9. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

10. Persons with lifetime operating permits must obtain a revised permit for any of the following changes at the source:
- a. An increase in emissions above the amount the emission unit or the source is permitted to emit;
  - b. A modification;
  - c. A change in operations that will result in the source's noncompliance with conditions in the existing permit; or
  - d. A change in ownership, company name, or address, so that the application or existing permit is not longer accurate.

If you have any questions on this permit, please contact Mike Dragovich at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:MJD:psj

cc: Region 1