

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

New Heights Recovery and Power, L.L.C.  
Attn: John R. Knoke, Gen. Mgr.  
1705 Cottage Grove  
Ford Heights, Illinois 60411

Application No.: 99030102                      ID. No.: 031801AAE  
Applicant's Designation: 10459-002              Date Received: March 26, 1999  
Subject: Crumb Rubber Production Facility  
Data Issued: September 22, 1999              Expiration Date: September 21, 2004  
Location: 1705 Cottage Grove, Ford Heights, Illinois 60411

This permit is hereby granted to the above designated Permittee to CONSTRUCT and OPERATE emission unit(s) and air pollution control equipment consisting of the following, pursuant to the above referenced application:

Existing Primary Tire Shredder producing nominal 12 inch chips;  
Tire Shredder producing nominal 2 inch chips;  
Two Primary Cryogenic Crumb Rubber Lines, each containing two cyclones discharging to a common fabric filter;  
Two Fine Grind Cryogenic Crumb Rubber Lines, each containing a cyclone that discharges to the fabric filter also provided for the primary lines;  
One Ambient Fine Crumb Rubber Line exhausted to a fabric filter;  
Crumb Rubber Handling and Storage with fabric filter;  
Byproduct Handling and Storage (Textile Fiber and Wire Scrap),

This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. Operation of each emission unit included in this permit shall not begin until its associated air pollution control equipment has been constructed and is operational.
- b.
  - i. This construction permit expires one year from the date of issuance unless construction of new equipment has commenced by such time.
  - ii. This construction permit will also expire for the remaining crumb rubber lines that have not commenced construction within three years from the date of permit issuance. This condition supersedes construction permit Standard Condition 1.
- c. The operating permit becomes effective only if and to the extent that the construction permit is effective (has not expired).

- 2a. The shredded tire throughput of each of the two Primary Crumb Rubber Lines shall not exceed 6 tons/hr on an average monthly basis.
- b. The only fuel used in the crumb rubber dryer shall be natural gas.
- c. i. Particulate matter emissions from the crumb rubber production facility shall not exceed the following limits:

<u>Operation</u>	Particulate Matter Emissions	
	<u>(lbs/hr)</u>	<u>(tons/yr)</u>
Tire Shredding	0.120	0.526
Process Lines (Main Baghouses)	0.282	1.235
Storage Silo (Filter)	0.900	3.942
Crumb Rubber Bag Loading	0.120	0.526
Crumb Rubber Truck Loadout	0.120	0.526
Textile Fiber Loadout	3.06	13.403
Steel Wire Loadout	1.320	<u>5.782</u>
Total		25.94

- ii. Operations and emissions from the dryer shall not exceed the following:

<u>Equipment</u>	<u>Operation</u> <u>(mmBtu/hr)</u>	Emissions			
		Carbon Monoxide		Nitrogen Oxide	
		<u>(lb/hr)</u>	<u>(ton/yr)</u>	<u>(lb/hr)</u>	<u>(ton/yr)</u>
Dryer	0.6	0.1	0.45	0.1	0.39

- iii. Compliance with annual limits shall be determined from a running total of 12 months of data.
- d. This permit is issued based on this source, both before and after construction of the cryogenic crumb rubber facility, not constituting a major source under the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21, due to limits imposed in the applicable permits.
- 3a. The facility shall be maintained and operated with good housekeeping practices to prevent accumulations of dust inside the facility and litter outside the building, which could contribute to unsafe conditions or a public nuisance.
- b. The Permittee shall conduct walk-through inspections of the facility at least once per week to verify implementation of housekeeping practices. These inspections shall be recorded in a log, with the dates and times of the inspections and the names of the employees performing the inspections.

- 4a. The Permittee shall have a Fugitive Dust Operating Program as required by 35 Ill. Adm. Code 212.309 and meeting the minimum requirements of 35 Ill. Adm. Code 212.310 in accord with the applicable provisions of 35 Ill. Adm. Code Part 212, Subpart K.
- b. In accordance with 35 Ill. Adm. Code 212.306 this program shall provide for cleaning of all normal traffic pattern roads and parking areas on a regular basis as needed to control fugitive particulate matter emissions, including prevention of entertainment/off-site transport of any spilled products or waste fiber due to vehicle traffic.
5. The Permittee shall operate, maintain, and repair all particulate matter control equipment in the crumb rubber facility in a manner that assures the emissions limits set in this permit are met. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:
  - a. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation for different classes of air pollution control equipment. Such procedures shall include maintenance practices to assure safe and effective operation of control equipment which may incorporate the manufacture's recommended operating procedures and maintenance instructions.
  - b. Instrumentation: Each main processing baghouse shall be equipped with a gauge or other instrument to measure pressure drop across the fabric filter.
  - c. Inspections: Visual inspections of air pollution control equipment shall be conducted at least once per shift when the facility is in operation. These inspections shall include observation of the exhausts (stacks) of the equipment and, for the main processing baghouses, reading of pressure drop across the fabric filter. Detailed inspections of control equipment shall be made at least once per year.
  - d. Repairs: Repairs shall be made upon identification of need, either as a consequence of formal inspections or other observers, in a prompt manner consistent with good air pollution control practice for minimizing emissions.
  - e. Operating Logs: Records of inspection, maintenance, and repair activities for air pollution control equipment shall be kept on site and shall include as a minimum:
    - i. Date and duration of inspection, maintenance, and repair activities;

- ii. The findings of the inspection, action taken, by whom and when performed;
  - iii. Description of maintenance or repair activity if not routine preventative maintenance; and
  - iv. Probable cause for requiring maintenance or repair if not routine or preventative.
6. Within 10 days following the startup date of each crumb rubber process line, the Permittee shall give written notice to the Illinois EPA.
- 7a. Within 90 days following a written request from the Agency, pursuant to 35 Ill. Adm. Code 201.282, the particulate matter emissions and opacity of an exhaust to the atmosphere from a fabric filter unit shall be measured by an approved testing service, during conditions which are representative of the maximum emissions. The Agency may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.
- b. i. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.
- |                             |                  |
|-----------------------------|------------------|
| Location of sampling Points | USEPA Method 1   |
| Gas Flow and Velocity       | USEPA Method 2   |
| Gas Analysis                | USEPA Method 3   |
| Particulate Matter          | USEPA Method 5   |
| Opacity                     | USEPA Method 9   |
| Volatile Organic Material   | USEPA Method 25A |
- ii. A particulate matter test shall consist of three separate runs each at least 60 minutes in duration. Compliance shall be determined from the average of the runs provided that the Illinois EPA may accept the arithmetic mean of the two runs in circumstance described in 40 CFR 60.8(f).
- iii. Prior to conducting such tests, the Illinois EPA should be consulted to verify the intended test method(s) is approved and is appropriate for use in testing this equipment.
- c. The Illinois EPA shall be notified prior to these test to enable the Illinois EPA to observe these test. Notification of the expected date of testing shall be submitted a minimum of thirty day prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five days prior to actual date of the test. The Illinois EPA may at it discretion accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with Illinois EPA's ability to observe testing.

- d. The Final Report(s) for all tests shall be submitted to the Illinois EPA within 14 days after test results are compiled and finalized. The Final Report shall include as a minimum:
  - i. A summary of results;
  - ii. General information;
  - iii. Description of test methods, including descriptions of sampling points, test equipment, and test schedule;
  - iv. Detailed description of test conditions, including:
    - A. Process information , i.e. mode(s) of operation, process rate, e.g. fuel or raw material consumption.
    - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
    - C. A discussion of any preparation actions taken, i.e., inspections, and maintenance and repair.
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
8. The Permittee shall maintain monthly operating records of the following items:
  - a. The amount of rubber processed by the crumb rubber facility.
  - b. The operating hours of each crumb rubber processing line.
9. 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.
10. If there is an exceedance of the requirements of this permit as determined by the above records or by other means, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall include the emissions released in accordance with the description of the exceedance or violation and efforts to reduce emissions and future occurrences.

11. The Permittee shall submit the following additional information with the Annual Emission Report, due May 1st each year:
  - a. The amount of tires processed.
  - b. The amount of crumb rubber produced.
  - c. The amount of textile fiber shipped.
  - d. The amount of steel scrap shipped.

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

12. Two copies of required reports and notifications concerning equipment operation, repairs, or performance testing 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 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  
Eisenhower Tower  
1701 South First Avenue  
Maywood, Illinois 60153

13. The Permittee shall obtain a revised permit for any of the following changes at the source:
  - a. A proposed increase in emissions above the amount allowed by this permit;
  - b. A proposed modification as defined by 35 Illinois Adm. Code 201.102;
  - c. A proposed change in operations that will prevent compliance with conditions in the existing permit;
  - d. A change in ownership or company name, so that the application or existing permit is no longer accurate.

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Please note that this permit does not authorize the operation of a "Pollution Control Facility" as defined in Section 3.32 of the Illinois Environmental Protection Act ("Act"). Prior to conducting activities as a "New Pollution Control Facility," the Permittee would first have to obtain a permit authorizing such activities, which would require the Permittee demonstrate compliance with Section 39.2 of the Act.

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

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

DES:JDC:psj

cc: Region 1