

OPERATION PERMIT

Hammond Department of Environmental Management
Air Pollution Control Division
5925 Calumet Avenue
Hammond, Indiana 46320-2598
(219) 853-6306

Permit #
03689

Refractory Service Corporation
4902 Calumet Avenue
Hammond, Indiana 46327

Stack ID

Castable Refractory Shapes Production Process

This process includes spent castable refractory crushing, steel lance preparation (cutting and welding), wet mixing and casting lances, and lance curing and drying. Emission units are as follows: one (1) torch cutting operation, twelve (12) welding stations, three (3) wet mixers with a maximum design rate of 3 tons/hr (only two (2) wet mixers are used at any given time), three (3) vertical curing ovens rated at 0.15 MMBtu/hr each, two (2) vertical staging ovens with no natural gas burners, and one (1) horizontal dryer rated at 5 MMBtu/hr, with an afterburner rated at 5 MMBtu/hr for VOC and opacity control. The horizontal dryer has two (2) compartments. Each compartment can hold 40 lances and cures for 36 hours. The maximum design rate of the process is 2 tons/hr due to the required drying time. All combustion units burn natural gas only.

The emissions shall be at a level acceptable to the regulations listed below for the following pollutants.

| <u>POLLUTANT</u> | <u>EMISSION LIMIT</u> | <u>REGULATION</u> |
|------------------|-----------------------|--|
| PM10 | 0.430 lbs/hr | Hammond Air Quality Control Ordinance No. 3522 (as amended) |
| | 1.870 TPY | |
| VOC | 0.160 lbs/hr | Hammond Air Quality Control Ordinance No. 3522 (as amended) |
| | 0.690 TPY | |
| SO ₂ | 0.010 lbs/hr | Hammond Air Quality Control Ordinance No. 3522 (as amended) |
| | 0.030 TPY | |
| NO _x | 1.370 lbs/hr | Hammond Air Quality Control Ordinance No. 3522 (as amended) |
| | 6.000 TPY | |
| CO | 0.880 lbs/hr | Hammond Air Quality Control Ordinance No. 3522 (as amended) |
| | 3.860 TPY | |

This permit, with the attached conditions, is issued under provisions of Hammond Ordinances No. 4621 and No. 7102 which incorporates by reference those standards found in 326 IAC and Hammond Ordinance No. 3522 (as amended).

Account No.: 2520

Date Issued: January 22, 2016

Expiration Date: December 31, 2016

Issued By:

Ronald L. Novak, Director

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation, the change must be approved by the Hammond Department of Environmental Management (HDEM).
2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.
3. That the permittee shall comply with the provisions of the Hammond Environmental Management Ordinance No. 7102 which incorporates by reference those standards found in 326 Indiana Administrative Code (IAC).

Preventive Maintenance Plan

4. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Company shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification and quantification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to HDEM upon request and shall be subject to review and approval.

Malfunction

5. In the event that there should be a malfunction or breakdown of any of the following: fuel burning unit, combustion unit, incineration unit, process and/or other related process equipment and air pollution control equipment the Company shall notify the Department no later than four (4) business hours as specified in Article VI, Section 6.12 Hammond Air Quality Control Ordinance No. 3522 (as amended). Also, any emission of air contaminants or increase of emissions that may contribute to a violation of the Nuisance Abatement Regulation under the City of Hammond Air Quality Control Ordinance No. 3522 (as amended) Article VI, Section 6.11 shall also be reported within four (4) business hours.
6. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):
 - (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the HDEM or appointed representative upon request.
 - (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to HDEM. Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
 - (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
 - (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

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Opacity Limitation

7. That pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-2.
8. The Company shall make available to HDEM all normal process operating records necessary to conduct the functions of the Department. Records of products produced, processed, material handled, and any other data related to the permitted source shall be kept for at least the past three (3) year period and shall be made available for inspection within five (5) business days after receipt of written notification of a request for inspection of said records.

Transfer of Permit

9. (a) In the event that ownership of this Company is changed, the source shall notify HDEM within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
(b) The written notification shall be sufficient to transfer the permit from the previous owner to the new owner.
(c) The HDEM shall reserve the right to issue a new permit.

Permit Revocation

10. That pursuant to 326 IAC 2-1.1-9 (Revocation), this permit to construct or operate may be revoked for any of the following causes:
 - (a) Violation of any conditions of this permit.
 - (b) Failure to disclose all the relevant facts or misrepresentation in obtaining this permit.
 - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
 - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
 - (e) For any cause which establishes in the judgment of HDEM the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1.1 (Permit Review Rules).

Inspection and Entry

11. Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow HDEM or an authorized representative to perform the following:
 - (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

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- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

Availability of Permit

12. The Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the HDEM or other public official having jurisdiction.

Special Operation Conditions

for

Refractory Service Corporation

Nuisance Abatement

1. Refractory Service Corporation shall not cause any emissions from the Castable Refractory Production Process to create any nuisance or odors as specified in the City of Hammond Air Quality Control Ordinance #3522 (as amended), Article VI, Section 6.11 - Nuisance Abatement.

Opacity Limitation

2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

Opacity shall not exceed an average of 20% in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

Thermal Afterburner

3. The afterburner shall be operated and maintained according to manufacturer's specifications, at a minimum.