

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0003018

Owner: Harbison – Walker Refractories Company
Address: 400 Fairway Drive, Moon Township, PA 15108

Continuing Authority: Same as above
Address: Same as above

Facility Name: Harbison – Walker Refractories Company, Fulton Plant
Facility Address: 1301 Westminster Avenue, Fulton, MO 65251

Legal Description: SEE PAGE TWO
Latitude/Longitude: SEE PAGE TWO

Receiving Stream: SEE PAGE TWO
First Classified Stream and ID: SEE PAGE TWO
USGS Basin & Sub-watershed No.: SEE PAGE TWO

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

SEE PAGE TWO

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

May 13, 2011
Effective Date

September 2, 2011
Modification Date


Sara Parker Pauley, Director, Department of Natural Resources

May 12, 2016
Expiration Date


Irene Crawford, Regional Director, Northeast Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001 – Clay Refractory – SIC #3255

Stormwater runoff / sedimentation basin

Design flow is 446,000 gallons per day

Actual flow is dependent upon precipitation

Legal Description: SW ¼, SE ¼, SW ¼, Sec. 8, T47N, R9W, Callaway County
UTM Coordinates: X=590538.799, Y=4301331.257

Receiving Stream: Unnamed tributary to Stinson Creek (U)
First Classified Stream and ID: Stinson Creek (C) (00710)
USGS Basin & Sub-watershed No.: (10300102-270002)

Outfall #002 – Clay Refractory – SIC #3255

Gravel wash water / stormwater runoff / cooling tower drainage water

Design flow is 428,000 gallons per day (3,420 gallons per day from gravel wash water)

Actual flow is dependent upon precipitation

Legal Description: SE ¼, SW ¼, SW ¼, Sec. 8, T47N, R9W, Callaway County
UTM Coordinates: X=590183.762, Y=4301523.169

Receiving Stream: Unnamed tributary to Stinson Creek (U)
First Classified Stream and ID: Stinson Creek (C) (00710)
USGS Basin & Sub-watershed No.: (10300102-270002)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 3 of 7

PERMIT NUMBER MO-0003018

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfalls #001 & #002 (Note 1)</u>						
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Chemical Oxygen Demand	mg/L	*		*	once/quarter***	grab
Total Suspended Solids	mg/L	100		50	once/quarter***	grab
Settleable Solids	ml/L/hr	1.5		1.0	once/quarter***	grab
pH	SU	**		**	once/quarter***	grab
Oil and Grease	mg/L	15		10	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JULY 28, 2011. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- *** See table below for quarterly sampling

Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

Note 1 - A representative grab sample shall be collected within the first 60 minutes of storm events of 0.1 inches or greater, that result in a discharge. Storm events include rainfall as well as run-off from the melting of frozen precipitation.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

C. SPECIAL CONDITIONS (continued)

2. This permit does not authorize the discharge of waters other than those listed in the facility description.
3. All outfalls must be clearly marked in the field.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
 - (c) That the effluent limit established in part A of the permit will be exceeded.
5. Report as no-discharge when a discharge does not occur during the report period.
 6. Water Quality Standards
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

C. SPECIAL CONDITIONS (continued)

7. The permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 60 days and implemented within 90 days of the permit issuance. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

- (a) An assessment of all stormwater discharges associated with the facility. This must include a list of potential contaminants and an annual estimate of amounts that will be used in the described activities.
 - (b) A listing of Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater.
 - (c) A schedule for implementing the BMPs.
 - (d) Provisions for preventing the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehousing activities and prevent the contamination of stormwater from these substances.
 - (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of areas having materials exposed to stormwater. Proof of training shall be submitted on request of the Department.
 - (f) The SWPPP must include a schedule for twice per month site inspections and brief written reports. At least one of the monthly inspections must be conducted after a precipitation event that causes runoff to occur onsite, including snow melt. If runoff does not occur during the month, the facility shall conduct an inspection on the last business day of the month regardless of precipitation. The inspections must include observations and evaluations of BMP effectiveness, deficiencies, and corrective measures that will be taken. Deficiencies must be corrected within seven days and the actions taken to correct the deficiencies shall be included with the written report. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five years. These must be made available to the Department upon request.
 - (g) A provision for designating an individual to be responsible for environmental matters. The provision shall also include alternates in the event that the primary responsible person is not available.
 - (h) Inspection reports must be kept on site with the SWPPP and retained in accordance with the Records, Retention, and Recording section listed below. These must be made available to DNR personnel upon request.
8. The purpose of the SWPPP and the BMPs listed therein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective action means the facility took steps to eliminate the deficiency.
9. Permittee shall adhere to the following minimum Best Management Practices:
- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
 - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - (d) Provide good housekeeping practices on the site to keep solid waste from entry into waters of the state.
 - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.
10. The purpose of the SWPPP and the BMPs listed therein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective action means the facility took steps to eliminate the deficiency.
11. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.

C. SPECIAL CONDITIONS (continued)

12. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERCLA.
13. All spills must be **cleaned up** within 24 hours or as soon as possible, and a written report of the incident supplied with the facility's Discharge Monitoring Report. The following spills must be **reported** to the department at the earliest practicable moment, but no greater than 24 hours after the spill occurs:
 - (a) Any spill, of any material, that leaves the property of the facility;
 - (b) Any spill, of any material outside of secondary containment and exposed to precipitation, greater than 25 gallons or equivalent volume of solid material.

The department may require the submittal of a written report detailing measures taken to clean up the spill within 5 days of the spill. Whether the written report is submitted with the Discharge Monitoring Report or required to be submitted within 5 days, it must include the type of material spilled, volume, date of spill, date clean-up completed, clean-up method, and final disposal method. If the spill occurs outside of normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the spill to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436. Leaving a message on a department staff member voice-mail does not satisfy this reporting requirement. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

Federal Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

REPORTING OF EFFLUENT VIOLATIONS

If any of the sampling results from any of the outfalls show any violation of the permit discharge limitations, written notification shall be made to the Department of Natural Resources within five (5) days of notification of analytical results. Notification shall indicate the date(s) of sample collection, the analytical results, and permit number, and shall include a statement concerning the revisions or modifications in management practices that are being implemented to address the violation of the limitations that occurred.

After a violation has been reported, a sample of storm water runoff resulting from the next rainfall greater than 0.1 inches shall be collected at outfall(s) for which the violation occurred. Analytical results of this sample shall be submitted in writing to the Department of Natural Resources (this section supersedes Standard Conditions Part I, Section B: Noncompliance Notification).

RECORDS, RETENTION AND RECORDING

Monitoring reports shall be submitted within 28 days after the end of each quarter. All sampling data shall be maintained by the permittee for a period of five (5) years and shall be supplied to the Department of Natural Resources upon request (supersedes Standard Conditions Part I, Section A, #7 - Records Retention). A copy of all of the sampling data must be submitted with an application for reissuance of this permit.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit's expiration date. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal. This permit authorizes only the activities described in this permit.

Missouri Department of Natural Resources
Statement of Basis
#MO-0003018
Harbison-Walker Refractories Company, Fulton Plant

This Statement of Basis (Statement) gives pertinent information regarding minor/simple modification(s) to the above listed operating permit without the need for a public comment process.

A Statement is not an enforceable part of a Missouri State Operating Permit.

FACILITY DESCRIPTION

Facility Type: Industrial Stormwater
Facility SIC Code(s): 3255

The Harbison-Walker Refractories Company, Fulton (HW) Plant began manufacturing operations as a refractory plant in 1947. The plant processes refractory materials to produce Raw Fireclay, Calcined Fireclay, and VISIL (vitreous silica) Aggregate. Operations conducted at the plant include crushing various refractory constituents and calcining raw materials. The facility has a 1,000 gallon diesel tank stored outside and is now located under a roof and is no longer exposed to precipitation. The facility discharges cooling water used approximately twice per year. No chemicals are added to the water used in the cooling system.

MODIFICATION RATIONALE

This operating permit is hereby modified to remove Ethylbenzene and Total Petroleum Hydrocarbons as the facility has placed the 1,000 gallon diesel tank under roof and has removed the gasoline tank. In addition, the previous permit Special Condition #12, regarding the discharge from secondary containment serving fuel tanks, has been removed from the permit.

ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

Date of Statement of Basis: May 23, 2011

Submitted by

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