

217/785-1705

CONSTRUCTION PERMIT

PERMITTEE

Bridgestone Americas Tire Operations, LLC  
Attn: Brad Taylor, Plant Engineer  
1600 Fort Jesse Road  
Normal, Illinois 61761

Application No.: 12090015

I.D. No.: 113823AAB

Applicant's Designation:

Date Received: September 10, 2012

Subject: Giant Loader Expansion Project

Date Issued: DRAFT 10/29/2012

Location: 1600 Fort Jesse Road, Normal

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a project to manufacture additional "giant loader" tires at the existing tire manufacturing plant for off-road tires, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Introduction

- a. This permit authorizes changes to this tire manufacturing plant for the manufacture of very large "giant" loader tires. This project includes physical modifications to the tire assembly and curing operations, with installation of the following new equipment ("affected units"). Existing operations would experience changes in throughput and emissions.
  - i. An additional tire assembly machine in the Tire Assembly Operation. In this new machine, rubber components from upstream operations (e.g., extrusion, milling, and calendaring) are assembled to make "green" tires. Green tires are tires that have not been cured. VOM emissions evolve from the cement and solvent used during assembly.
  - ii. One additional curing press or "pot heater" in the Curing Operations. In the pot heater, a green tire is converted into a finished tire. The pot heater consists of a frame into which a tire mold of the appropriate size, contour, tread pattern, and sidewall design is placed. Steam is used to provide the pressure and heat to form and vulcanize the tires. VOM emissions occur from organic compounds in the rubber that evolve due to the elevated temperatures at which curing occurs.

- b. This permit also establishes operational and emission limits on the plant so that it is classified as a minor source for purposes of the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21. (See Conditions 3 and 5.)
- c. This permit does not affect applicable requirements for the existing emission units at the source as addressed in its CAAPP permit and in construction permits for projects at the source whose requirements have not yet been included in its CAAPP permit.

2. Emission Standards

- a. The affected units are subject to 35 IAC 215.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from each affected unit. If no odor nuisance exists the limitation shall apply only to photochemically reactive material as defined in 35 IAC 211.4690.
- b. The affected units are subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).
- c. The affected units are subject to 35 IAC 212.123(a), which provides that no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

3. Non-Applicability Provisions

- a. This permit is issued based on the source not being a major source for purposes of the federal PSD rules. This is because the actual emissions from the source have been less than the major source thresholds for purposes of PSD, e.g., 250 tons of VOM per year, and this permit limits future emissions to less than these thresholds.
- b. The affected units are not subject to the New Source Performance Standards (NSPS) for the Rubber Tire Manufacturing Industry, 40 CFR 60 Subpart BBB. This is because the tires produced at this plant have a bead diameter greater than 19.7 inches.

- c. The affected units are not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Rubber Tire Manufacturing, 40 CFR 63 Subpart XXXX. This is because the plant is not a major source of emissions of hazardous air pollutants (HAP).
- d. The affected units are not subject to 35 IAC 215 Subpart S: Rubber and Miscellaneous Plastic Products. This is because the tires produced at this plant have a bead diameter of 20.0 inches or greater. (Refer to 35 IAC 211.4790.)

4. Control Requirements and Work Practice Requirements

- a. The Permittee shall implement a solvent reduction plan that achieves an emission rate of no more than 0.00414 lb VOM from solvent, cement, ink and paint applied per pound of rubber processed (determined on a monthly average).
- b. The Permittee shall, to the extent practicable, maintain and operate the affected units and other emission units involved in this project in a manner consistent with good air pollution control practice for minimizing emissions.

5. Operational and Emission Limits

- a.
  - i. The total amount of rubber processed by the plant, determined as total tire weight, shall not exceed 13,275,000 lbs/month and 106,200,000 lbs/year.
  - ii.
    - A. The only fuel used at the plant shall be natural gas.
    - B. Fuel usage for the fuel combustion units at the plant combined shall not exceed 105 mmscf/month and 836 mmscf/year.
- b.
  - i. Emissions from all emission units at the plant, in total, shall not exceed the following limits:

Pollutant	Limits
	Tons/Year
VOM	245.0
NO <sub>x</sub>	41.8
CO	35.2
PM/PM <sub>10</sub>	4.2
GHG (as CO <sub>2</sub> e)	55,000

- ii. This permit is issued based on negligible emissions of SO<sub>2</sub> from all emission units at the plant, in total. For this purpose, emissions shall not exceed nominal emission rates of 0.44 tons/year.

- c. i. VOM emissions from process operations at the plant shall not exceed the following limits:

Process	Limits	
	Tons/Month	Tons/Year
Rubber Processing (extrusion, milling, curing, etc.)	2.8	22.5
Green Tire Assembly Stations & Finishing Spray Booths	---	220.0
Solvent Storage	---	0.2
Totals:		242.7

- ii. This permit is issued based on minimal emissions of PM/PM<sub>10</sub> from the Rubber Processing Operations (extrusion, milling, curing, etc.), Green Tire Assembly Stations, and Finishing Spray Booths. For this purpose, emissions, in total shall not exceed 1.0 tons/year.

- d. HAP emissions from the plant shall not exceed the following limits:

Pollutant	Limits	
	Tons/Month	Tons/Year
Individual HAP	0.8	8.0
Total HAP	2.0	20.0

- e. Emissions from fuel combustion emission units at the plant shall not exceed the following limits:

Pollutant	Limits	
	Tons/Month	Tons/Year
NO <sub>x</sub>	5.2	41.8
CO	4.4	35.2
PM/PM <sub>10</sub>	0.4	3.2
VOM	0.3	2.3
GHG (as CO <sub>2</sub> e)	7,000	55,000

- f. Compliance with the annual limits in this permit shall be determined from a running total of 12 months of data.

Note: These emissions limits for the modified plant, with the giant loader expansion project, replace the prior emission limits in previously issued construction permits and the CAAPP permit, which address the plant without this modification.

6. Recordkeeping Requirements

- a. The Permittee shall maintain records of the standard emission factors (lbs/lbs rubber) that it uses to determine emissions of VOM, PM/PM<sub>10</sub>, individual HAPs and total HAPs from the various processes at the plant, which information shall be based on site-

specific test data, representative test data or emission determination methodology published by USEPA, with supporting explanation and calculations.

- b. The Permittee shall keep the following records with respect to VOM and HAP emissions.
  - i. Amount of rubber processed at the plant (pounds/month and pounds/year).
  - ii. VOM emissions (tons/month and tons/year), with supporting calculations and supporting documentation.
  - iii. A. Individual HAP emissions (tons/month and tons/year), with supporting calculations and documentation.  
B. Total HAP emissions (tons/month and tons/year), with supporting calculations and supporting documentation.
- c. The Permittee shall keep the following records with respect to the fuel combustion emission units at the plant:
  - i. Emission factors for combustion (lb/mmscf).
  - ii. Total fuel usage for all units combined (mmscf/month and mmscf/year).
  - iii. Emissions of NO<sub>x</sub>, CO, PM/PM<sub>10</sub>, VOM, individual HAPs, total HAPs and GHG (as CO<sub>2</sub>e) (tons/month and tons/year), with supporting calculations.
- d. The Permittee shall keep records of the total emissions (tons/month and tons/year) of NO<sub>x</sub>, CO, PM/PM<sub>10</sub>, VOM, individual HAPs, total HAPs and GHG (as CO<sub>2</sub>e) from the plant.
- e.
  - i. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
  - ii. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

7. Reporting Requirements

Except as specified in a subsequent CAAPP Permit for the plant, reports for deviation from applicable requirements of this permit shall be submitted within 30 days of a deviation and include the following information: the date and time of the event, a description of the event, a discussion of the probable cause of the deviation, a description of the corrective measures taken, and a description of any preventative measures taken to prevent future occurrences.

8. Addresses

Unless otherwise indicated, one copy of required reports and notifications 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:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
2009 Mall Street  
Collinsville, Illinois 62234

9. Authorization to Operate

The Permittee is allowed to operate the plant with changes pursuant to this project under this construction permit until its CAAPP Permit is reissued or revised to address this project.

If you have any questions on this permit, please contact Jason Schnepf at 217/524-3724.

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

ECB:JMS:psj

cc: Region 3