

217/782-2113

CONSTRUCTION PERMIT - PSD APPROVAL - REVISED
NESHAP SOURCE
NSPS SOURCE

PERMITTEE

Continental Tire North America, Inc.
Attn: Keith Pearson
11525 North Illinois Highway 142
Mount Vernon, Illinois 62864

Application No.: 05110019

I.D. No.: 081803AAB

Applicant's Designation:

Date Received: July 5, 2007

Subject: Plant Expansion

Date Issued: TO BE DETERMINED

Location: 11525 North Illinois Highway 142, Mount Vernon

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an expansion to an existing tire manufacturing plant as described in the above referenced application. This Permit is granted based upon and subject to the findings and conditions that follow:

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) for this modification, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 *et seq.*, the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and conditions which follow:

Findings

1. On June 22, 2006, Continental Tire North America, Inc ("Continental") was issued a construction permit for changes to its tire manufacturing plant in Mount Vernon, specifically the Passenger and Light Truck (PLT) area of the facility. That project included new rubber mixing units, increased capacity of existing mixing units, ten new curing presses (bringing the total number of presses to 148), and other new and modified equipment changes for increased production. In conjunction with that expansion, Continental also was authorized to change the rubber formulation to include organo-silane coupling agents for the purpose of enhancing the properties of the rubber, such as reducing rolling resistance and improving vehicle fuel economy. That change to the rubber formulation resulted in additional volatile organic material (VOM) emissions during the processing and curing of the rubber at the plant.

Continental has now applied for a revised permit that would expand the scope of the project to involve increased production of tires in the Heavy Truck area. This will entail installation of additional rubber mixers, curing presses, and other new equipment for heavy truck tires.

This application also addresses additional tire finishing equipment that will be needed to meet the increased production rates for the PLT area.

2. Jefferson County, where the plant is located, is currently designated attainment for all criteria pollutants.
- 3a. The proposed project has the potential to increase emissions of VOM by more than 40 tons per year, as summarized in Attachment 2. The project is therefore subject to PSD review as a major modification for VOM emissions.
 - b. This project would not result in significant increase in emissions of other PSD pollutants as summarized in Attachment 2.
- 4a. After reviewing all the materials submitted by Continental, the Illinois EPA has determined that the plant, as now proposed, will (i) be in compliance with all applicable Board emission standards, (ii) utilize Best Available Control Technology (BACT) for emissions of VOM from new and modified emission units and (iii) be in compliance with other limits as set in Conditions of this permit.
 - b. As certain existing units that contribute to the significant increase in VOM emissions from this project will not undergo a physical change or change in the method of operation (including any relaxation of any existing federally enforceable emission limits), these units are not subject to BACT. These units are identified in Sections 2.2 and 2.4 of this Permit.
5. The air quality analysis submitted by Continental and reviewed by the Illinois EPA shows that the proposed project will not cause violations of the ambient air quality standards for ozone.
6. The Illinois EPA has determined that the plant, as now proposed, would comply with all applicable Illinois Air Pollution Control Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
7. A copy of the application and the Illinois EPA's project summary of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing approval to construct the proposed project subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of

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this approval or terms expressed in the application would need to receive prior written authorization of the Illinois EPA.

Conditions

1.0 OVERALL SOURCE CONDITIONS

1.1 Federal Regulations of General Applicability

- a. This permit is issued based on the plant being subject to the NESHAP, 40 CFR Part 63 Subpart XXXX: Rubber Tire Manufacturing, because the plant manufactures rubber tires and is a major source for hazardous air pollutants. The compliance date for this standard for existing sources is July 11, 2005, which has already passed.
 - i. For all tire production processes at the source that use or process cements and solvents or constitute tire cord production, the Permittee shall comply with all applicable requirements in 40 CFR 63 Subpart XXXX, including the emission control requirements in Tables 1 through 4, requirements for compliance demonstrations, monitoring requirements, recordkeeping requirements and reporting requirements.
 - ii. This permit is issued based on the affected mixers and curing presses (See Condition 2.1) being rubber processing operations that are not subject to any emission limitations or other requirement under the NESHAP Subpart XXXX, pursuant to 40 CFR 63.5982(b)(4).
- b. This permit is issued based on certain cementing operations at the plant being subject to the NSPS for Rubber Tire Manufacturing, 40 CFR Part 60 Subpart BBB, as addressed in the current CAAPP permit for the source.

1.2 State Regulations of Generally Applicability

- a. All emission units at the plant are subject to and shall comply with 35 IAC 212.123 and 212.301, which limit opacity and visible emissions from the units.
- b. All process emission units at the plant are subject to and shall comply with 35 IAC 212.321, which limits the rate of particulate matter (PM) emissions from the units based on the unit's process weight rate, as defined at 35 IAC 211.5250.
- c. All process emission units at the plant, other than storage tanks, are subject to 35 IAC 215.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit unless no odor nuisance exists and the organic material qualifies as non-photochemically reactive material as defined at 35 IAC 211.4690.

1.3 Effect of Permit on Limitations and Requirements in Other Permits

- a. This permit does not relax or revise limitations or requirements contained in other permits for the source, including Construction Permit/PSD Approval 89030044, originally issued September 11, 1989, except as specifically stated.
- b. Where changes in limitations or requirements are authorized, those changes are being made in conjunction with the proposed project and shall take effect when new or modified emission units initially startup pursuant to this permit.

1.4 Authorization to Construct

- a. As provided by 40 CFR 52.21(r)(2), this permit shall become invalid if construction is not commenced within 18 months of the PSD approval becoming effective, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time. The Illinois EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This condition supersedes Standard Condition 1 of the permit. (See Attachment 3)
- b. For purposes of the above provisions, the definitions of "construction" and "commence" at 40 CFR 52.21(b) (8) and (9) shall apply, which requires that a source must enter into a binding agreement for on-site construction or begin actual on-site construction. (See also the definition of "begin actual construction," 40 CFR 52.21(b)(11)).

1.5 Authorization for Operation

- a. Under this permit, the modified plant may be operated for a period that ends 180 days after the initial startup of new or modified emission units pursuant to this project. This period may be extended by Illinois EPA upon request of the Permittee if additional time is needed to complete shakedown or perform emission testing. This condition supersedes Standard Condition 6. (See Attachment 3)
- b. Upon successful completion of testing in accordance with Condition 2.1.7 that demonstrates compliance with applicable short-term emission limits, the Permittee is allowed to operate under this Construction Permit until its CAAPP Permit is reissued or revised to address this project provided that the Permittee applies for a renewed or revised CAAPP permit within one year of initial startup of new or modified emission units pursuant to this project, as provided by Section 39.5(5) of the Environmental Protection Act.

1.6 Other Applicable Requirements

- a. This permit does not relieve the Permittee of the responsibility to comply with all local, state and federal regulations that are part of the applicable Illinois' State Implementation Plan, as well as all other applicable federal, state and local requirements.

2.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

2.1 Rubber Mixers and Curing Presses

2.1.1 Description

Banbury Mixers

The Banbury mixers operate in batch mode to produce the feedstock for the subsequent tire manufacturing processes. Rubber is mixed several times to achieve the necessary properties and composition, with the last stage of mixing producing "productive" rubber, which contains the additional ingredients, the curing package, necessary for the vulcanization or curing of the rubber when the tires are produced in the plant.

Particulate matter emissions from the mixers are controlled by fabric filters, also known as "baghouses".

The temperature of the mixing units is set by process limits to control fire hazards, therefore, the temperature basis for calculating emissions will not change. Organic solvents are not used during mixing or curing operations.

Curing Presses

Tire curing is the operation during the manufacture of tires where the assembled "green" tire is vulcanized and converted into a finished tire. Curing presses consist of a frame into which a tire mold of the appropriate size, contour, tread pattern, and sidewall design is placed. A green tire is loaded into the mold with a rubber bladder inflated into the center of the tire, into which steam is injected to provide the pressure and temperature required to form and vulcanize the tire over a specified time. Dual cavity presses hold two molds, typically sized for passenger and truck sized tire molds, to produce two tires at a time. Dome presses hold only one mold and are sized for larger farm and Off the Road sized tires.

2.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Rubber Mixers	18 Banbury Rubber Mixers New: #14, #15, #16, #17, #18 Modified: #2, #4, #5, #8 #9, #12 Existing: 1, #3, #6, #7, #10, #11, #13	Baghouses
Curing Presses	Curing Trench #1 (30 Existing Curing Presses)	None
	Curing Trench #2 (30 Existing Curing Presses)	
	Curing Trench #3 (26 Existing Presses and 10 New Presses, Total 36 Curing Presses)	

Emission Unit	Description	Control Equipment
Curing Presses (Cont.)	Curing Trench #4 (30 Existing Presses and 16 New Presses, Total 46 Curing Presses)	None
	Curing Trench #5 (32 Existing Presses and 10 New Presses, Total 42 Curing Presses)	
	Truck Tire Curing Trench #6 (34 Existing Curing Presses)	
	Truck Tire Curing Trench #7 (30 Existing Curing Presses)	
	Truck Tire Curing Trench #8 (25 Existing Curing Presses)	
	Truck Tire Curing Trench #9 (28 Existing Curing Presses)	
	Truck Tire Curing Trench #10 (30 New Presses)	

2.1.3-1 Applicability Provisions and Applicable Regulations

- a. i. An "affected mixer" is a mixer that prepares rubber compounds as described in Conditions 2.1.1 and 2.1.2.
- ii. An "affected press" is a tire curing press described in Condition 2.1.1 and 2.1.2.
- b. Each affected unit shall comply with the applicable emission standards identified in the source's CAAPP Permit.

2.1.3-2 Control Technology Determination

- a. Emission of VOM from the affected mixers and affected presses, in total, attributable to the use of silicon coupling agents shall not exceed 0.387 pounds per pound of coupler.
- b. Emissions of VOM from different categories of affected units shall not exceed the following limits. Compliance with these limits shall be determined from representative emission testing for the formulation of rubber:
 - i. Affected mixers for silica formulation, non-productive rubber: 0.003 pounds VOM per pound of rubber, which includes the portion of VOM emissions generated during mixing due to the presence of coupling agent as identified in Condition 2.1.3-2(a).
 - ii. Affected mixers for non-silica non-productive rubber: 0.000215 pounds VOM per pound of rubber.

- iii. Affected mixers for productive rubber: 0.0000215 pounds VOM per pound of rubber.
- iv. Affected curing presses: 0.000337 pounds VOM per pound of rubber.
- c.
 - i. The concentration of VOM from affected mixers shall not exceed 25 ppm and 80 ppm, for mixers handling non-silica and silica rubber formulations, respectively. Compliance with these limits shall be determined by the actual flow rate measured in accordance with Condition 2.1.7(a) and VOM emissions as determined for Conditions 2.1.3-2(b)(i) and (ii).
 - ii. The concentration of VOM from the curing department, i.e., the area in which the affected presses are located, shall not exceed 20 ppm overall from curing trenches #1-5 and #10. Compliance with this limit shall be determined by engineering calculations for the VOM emissions from the affected curing presses and exhaust air flow from the affected trenches.
 - iii. The compliance calculations shall be updated whenever significant changes to the affected mixers or presses occur, e.g., installation of a new mixer, changes to the raw material, etc.

Note: This condition represents the application of Best Available Control Technology (BACT) for the affected units.

2.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected units not being subject to the control requirements of the NSPS, 40 CFR Part 60 Subpart BBB, because the units are not cementing or spraying operations, as addressed by the requirements of the NSPS, 40 CFR 60.540.

2.1.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected units in a manner consistent with good air pollution control practice for minimizing emissions.
- b. The Permittee shall perform inspections of each affected unit on at least a quarterly basis, including associated control measures, to confirm compliance with the requirements of Condition 2.1.3 and 2.1.6(b).
- c. The Permittee shall perform detailed inspections of the dust collection equipment for the affected units at least every 15 months while the units are out of service, with an

initial inspection performed before any maintenance and repair activities are conducted during the period the unit is out of service and a follow-up inspection performed after any such activities are completed.

2.1.6 Emission Limitations

- a. i. The affected units, including new and modified mixers and curing presses, are subject to emission limitations in Attachment 1, Table 1.1.

Note: The increase in VOM emissions associated with the affected units is identified in Attachment 2, Table 2.2.

- ii. Compliance with this limit shall be determined using appropriate emission factors for the VOM emissions from the affected units. In particular, the emissions of VOM from the affected mixers and presses attributable to use of organo-silane coupling agents or other similar rubber additives shall be determined by material balance based on the stoichiometric loss of VOM due to the breakdown of the coupling compound during mixing and curing.
- b. i. A. PM emissions from the affected mixers shall not exceed 0.0546 lb per ton of rubber processed.
B. PM emissions from the new mixers (Mixer #14, #15, #16, #17, #18) shall not exceed the limits in Attachment 1, Table 1.2.
- ii. This permit is issued based on negligible emissions of PM from the curing presses. For this purpose, emissions of PM from all such sources shall not exceed 0.44 tons/year.

2.1.7 Testing Requirements

- a. i. Within 180 days of startup of the plant expansion, the Permittee shall have the VOM and PM emissions from selected new and modified affected mixers (two silica mixers and two non-silica mixers) measured at the Permittee's expense by an approved testing service.

Notwithstanding the above, the Illinois EPA may upon request of the Permittee provide more time for testing pursuant to this permit if such time is reasonably needed to address unavoidable delays in performance of testing or waive this testing if it

determines that this factor is supported by test data.

- ii. The following methods and procedures shall be used for testing of emissions unless other use of other USEPA methods is approved by the Illinois EPA as part of the approval of the test plan. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
VOM	USEPA Method 18 and Method 25 or 25A, as appropriate

- b. Upon request of the Illinois EPA, the Permittee shall promptly have the opacity from the affected units measured at the Permittee's expense by a certified observer using USEPA Method 9.

2.1.8 Recordkeeping Requirements

- a. The Permittee shall maintain the following operating records for the affected mixers:
 - i. Total throughput of rubber for the affected mixers (tons/month and tons/year).
 - ii. Usage of organo-silane coupling agents, by type (tons/month and tons/year).
- b. Permittee shall maintain an operating log for the affected units that, at a minimum, includes:
 - i. Information for any significant changes in the compounding process, the type of silane coupler used, or the curing process that may affect the evolution of VOM, with description.
 - ii. Identifies each period when an affected unit or the associated control device operated in an atypical manner as related to generation of VOM or PM emissions and, as related to PM emissions whether the applicable limit in Condition 2.1.6 may have been exceeded.
- c. The Permittee shall maintain the following records for emissions from the affected mixers and presses:

- i. A file containing the emission factors used to calculate the VOM and PM emissions from the different types of affected units, with supporting documentation and calculations, which shall be kept current.
 - ii. The emissions of VOM for the affected mixers and for the affected presses (tons/month and tons/year), with supporting calculations.
 - iii. The emissions of PM from each new or modified affected mixers (tons/month and tons/year), with supporting calculations.
 - iv. The total emissions of PM from the existing affected mixers (tons/month and tons/year), with supporting calculations.
- d. The Permittee shall maintain an inspection and maintenance log or other records for each affected mixer and associated emission control devices that, at a minimum, document performance of the inspections and results of inspections required by Condition 2.1.5(b) and (c) and other activities performed to maintain proper operation as related to control of emissions.
- e. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.1.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.
- f. The following records shall be kept for the existing affected mixers:
- i. Before beginning actual construction of the project, the Permittee shall document and maintain a record of the following information [40 CFR 52.21(r)(6)(i)]:
 - A. A description of the project;
 - B. Identification of the emissions unit(s) whose emissions of a regulated PSD pollutant could be affected by the project; and

- C. A description of the applicability test used to determine that the project is not a major modification for any regulated PSD pollutant (except VOM), including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.
- ii. The Permittee shall keep records for the emissions of any regulated PSD pollutant (except VOM) that could increase as a result of the project and that is emitted by any emissions unit identified in 40 CFR 52.21(r)(6)(i)(b) (See also Condition 2.1.8(f)(i)(B)) and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit that regulated PSD pollutant at such emissions unit [40 CFR 52.21(r)(6)(iii)].

2.1.9 Reporting Requirements

- a. For the existing affected mixers, the Permittee shall submit a report to the Illinois EPA and USEPA if the annual emissions, in tons per year, from the project identified in 40 CFR 52.21(r)(6)(i) (See also Condition 2.1.8(f)(i)), exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c), by a significant amount (as defined in 40 CFR 52.21(b)(23)) for that regulated PSD pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c). Such report shall be submitted to the Illinois EPA and USEPA within 60 days after the end of such year. The report shall contain the following [40 CFR 52.21(r)(6)(v)]:
 - i. The name, address and telephone number of the major stationary source;
 - ii. The annual emissions as calculated pursuant to 40 CFR 52.21(r)(6)(iii); and
 - iii. Any other information that the Permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

2.2 Other Process Operations (VOM Emission Units)

2.2.1 Description

Various existing emission units at the plant, other than the rubber mixers and curing presses, are not being physically modified as part of this project but will experience an increase in VOM emissions due to increase in production with this project. In addition, several new units are being added to these areas. The new units to be added include two new extruders and one wire calender. Four grinders and three white sidewall buffers are also being added but because the VOM emissions from these units are minimal (less than 0.06 tons per year of VOM in total), these units will be addressed in Section 2.3.

2.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Other Process Units - VOM	Extrusion/Calendering Areas	None
	Tire Stock and Bead Preparation Areas	None
	Tire Building Machines	None
	Tire Spraying	Scrubber

2.2.3-1 Applicable Provisions and Regulations

- a. An "affected unit" is a unit in a department described in Conditions 2.2.1 and 2.2.2.
- b. Each affected unit shall comply with the applicable emission standards identified in the source's CAAPP Permit.
- c. Each affected unit shall comply with the applicable emission control requirements of the NESHAP, 40 CFR Part 63 Subpart XXXX. (See also Condition 1.1.)

2.2.3-2 Control Technology Determination

- a. Emissions of VOM from the new affected extruders shall not exceed 0.0000515 lb/lb rubber.
- b. Emissions of VOM from the new affected calendar shall not exceed 0.000252 lb/lb rubber.

Note: These conditions represent the application of BACT for the affected units.

2.2.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on this project not resulting in requirement for BACT for the existing affected units under the PSD rules because the existing affected units will not be experiencing an increase in VOM emissions as a result of a physical change or a change in the method of operation of the units, as provided by 40 CFR 52.21(j)(3).

2.2.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected units in a manner consistent with good air pollution control practice for minimizing emissions.

2.2.6 Emission Limitations

- a.
 - i. Total VOM emissions from each department, which include the affected units, shall not exceed the applicable limits in Attachment 1, Table 1.1.
 - ii. PM emissions from extruders shall not exceed 0.000224 lb per ton of extruded material.
- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

2.2.7 Testing Requirements

- a. The Permittee shall comply with applicable testing and monitoring requirements of the NESHAP for the affected units.
- b. Upon request of the Illinois EPA, the Permittee shall have the VOM emissions from designated affected units measured at the Permittee's expense by an approved testing service using standard USEPA Test methods.

2.2.8 Recordkeeping Requirements

- a. The Permittee shall comply with applicable recordkeeping requirements of the NESHAP for the affected units.
- b. The Permittee shall maintain records for the total throughput (tons/month and tons/year) or other measure of activity (on a monthly and annual basis) for the affected units in each department.
- c. The Permittee shall maintain an operating log or other records for the affected units in each department that, at

a minimum, identifies each period when a unit operated in an atypical manner as related to generation of emissions.

- d. i. The Permittee shall keep a file, which shall be kept current, that contains the emission factors and other operating data used to calculate VOM and PM emissions from the affected units in different departments, with supporting documentation.
- ii. The Permittee shall maintain records of the total emissions of VOM (tons/month and tons/year) from the affected units in each department, with supporting calculations.

2.2.9 Reporting Requirements

- a. The Permittee shall comply with applicable reporting requirements of the NESHAP for the affected units.

2.3 Other Process Operations (PM Emission Units)

2.3.1 Description

This project includes installation of new emission units, specifically, new tire uniformity machines and new white sidewall buffing units. These units are regulated principally as they are sources of PM emissions.

Existing equipment will also handle additional production.

2.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Other Process Units - PM	27 Tire Uniformity Machines, including new Machines #43, #44, #45, and #46	Cyclones
	14 White sidewall Buffing Units, including new Units #12, #13, and #14	Cyclones

2.3.3 Applicable Provisions and Regulations

- a. An "affected unit" is a unit described in Condition 2.3.1 and 2.3.2.
- b. Each affected unit shall comply with the applicable emission standards identified in the source's CAAPP Permit.

2.3.4 Non-Applicability of Regulations of Concern

None

2.3.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected units in a manner consistent with good air pollution control practice for minimizing emissions.
- b. The Permittee shall perform inspections of each affected units on at least a quarterly basis, including associated control measures, to confirm compliance with the requirements of Condition 2.3.3 and 2.3.6(a).
- c. The Permittee shall perform detailed inspections of the dust collection equipment for the affected units at least every 15 months while the units are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the unit is out of service and a follow-up inspection performed after any such activities are completed.

2.3.6 Emission Limitations

- a. i. PM emissions from each affected tire uniformity machine shall not exceed 31.2 lb per ton of rubber removed.
- ii. PM emissions from each affected buffer shall not exceed 3.25 lb per ton of rubber removed.
- b. PM emissions from the new affected units shall not exceed the limits in Attachment 1, Table 1.2.

2.3.7 Testing Requirements

- a. Upon request of the Illinois EPA, the Permittee shall have the PM emissions from the affected units measured at the Permittee's expense by an approved testing service using standard USEPA Test Methods.
- b. Upon request of the Illinois EPA, the Permittee shall promptly have the opacity from the affected units measured at the Permittee's expense by a certified observer using USEPA Method 9.

2.3.8 Recordkeeping Requirements

- a. The Permittee shall maintain records for the total throughput (tons/month and tons/year) or other measure of activity (on a monthly and annual basis) for each category of affected units.
- b. The Permittee shall maintain an operating log or other record for each category of affected units that, at a minimum, identifies each period when a unit or the associated control device operated in an atypical manner as related to generation of emissions.
- c. i. The Permittee shall keep a file, which shall be kept current, that contains the emission factors used to calculate PM emissions from different categories of affected units with supporting documentation.
- ii. The Permittee shall maintain records of the total emissions of PM of each category of affected unit (tons/month and tons/year), with supporting calculations.
- d. The Permittee shall maintain an inspection and maintenance log or other records for each category of affected unit and associated emission control devices that, at a minimum, document performance of the inspections and results of

inspections required by Condition 2.3.5(b) and (c) and other activities performed to maintain proper operation as related to control of emissions.

- e. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.3.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.

2.4 Boilers

2.4.1 Description

Steam for the tire curing presses and certain other process equipment at the plant is provided by four existing boilers. These boilers are not being physically changed as part of this project but will experience an increase in use due to the increase in production.

The boilers are normally fired on natural gas. Distillate fuel oil can also be fired in the event of an interruption in the natural gas supply.

2.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Group	Description	Control Equipment
Boilers	4 Existing Boilers Nom. capacity 72 mmBtu/hr each	None

2.4.3 Applicable Provisions and Regulations

- a. An "affected boiler" is a boiler described in Conditions 2.4.1 and 2.4.2.
- b. Each affected boiler shall comply with the applicable emission standards identified in the source's CAAPP Permit.

2.4.4 Non-Applicability of Regulations of Concern

None.

2.4.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected boilers, in a manner consistent with good air pollution control practice for minimizing emissions.

2.4.6 Emission Limitations

None.

2.4.7 Testing Requirements

- a. Upon request of the Illinois EPA, the Permittee shall promptly have the emissions of NO_x and PM from the boilers measured at the Permittee's expense by an approved testing service using standard USEPA test methods.
- b. Upon request of the Illinois EPA, the Permittee shall promptly have the opacity from the boilers measured at the

Permittee's expense by a certified observer using USEPA Method 9.

2.4.8 Recordkeeping Requirements

- a. The following records shall be kept for the affected boilers:
 - i. Before beginning actual construction of the project, the Permittee shall document and maintain a record of the following information [40 CFR 52.21(r)(6)(i)]:
 - A. A description of the project;
 - B. Identification of the emissions unit(s) whose emissions of a regulated PSD pollutant could be affected by the project; and
 - C. A description of the applicability test used to determine that the project is not a major modification for any regulated PSD pollutant (except VOM), including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.
 - ii. The Permittee shall keep records for the emissions of any regulated PSD pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in 40 CFR 52.21(r)(6)(i)(b) (See also Condition 2.4.8(a)(i)(B)) and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit that regulated PSD pollutant at such emissions unit [40 CFR 52.21(r)(6)(iii)].
- b. The Permittee shall maintain an inspection and maintenance log or other records for each boiler that, at a minimum, documents activities performed to maintain proper operation of the boiler as related to emissions, including documentation for periodic combustion evaluations performed for the boiler, with the data that is measured with the diagnostic instruments.
- c. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the

affected boilers that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.4.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.

2.4.9 Reporting Requirements

- a. For the affected boilers, the Permittee shall submit a report to the Illinois EPA and USEPA if the annual emissions, in tons per year, from the project identified in 40 CFR 52.21(r)(6)(i) (See also Condition 2.4.8(a)(i)), exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c), by a significant amount (as defined in 40 CFR 52.21(b)(23)) for that regulated PSD pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c). Such report shall be submitted to the Illinois EPA and USEPA within 60 days after the end of such year. The report shall contain the following [40 CFR 52.21(r)(6)(v)]:
 - i. The name, address and telephone number of the major stationary source;
 - ii. The annual emissions as calculated pursuant to 40 CFR 52.21(r)(6)(iii); and
 - iii. Any other information that the Permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

3.0 GENERAL CONDITIONS

3.1 Standard Conditions

Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by other conditions in the permit. (See Attachment 3.)

3.2 Compliance with Annual Limits

Unless otherwise specified in a particular condition, compliance with annual limits established by this permit shall be determined from a running total of 12 months of data, that is, from the sum of the data for the current month plus the preceding 11 months (total 12 months of data).

3.3 General Requirements for Emission Testing pursuant to this Permit

The Permittee shall comply with the following requirements for all emission testing conducted pursuant to this permit

- a. The Permittee shall submit a written test plan to the Illinois EPA for its approval for initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 90 days prior to the actual date of testing and include the following information as a minimum:
 - i. A description of the planned test procedures.
 - ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.
 - iv. The methodology that will be used to determine the operating rate and other process parameters during the period of testing.
- b. The Permittee shall notify the Illinois EPA prior to conducting testing to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

- c. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. These reports shall include as a minimum:
 - i. General Information, including date and time of testing, units tested and test personnel.
 - ii. A summary of results.
 - iii. A description of the test procedures.
 - iv. Detailed description of operating conditions of the emission unit when tested, including:
 - A. Operating rate and other process information; and
 - B. Control equipment operating parameters.
 - v. Copies of raw data, data sheets and calculations.
 - vi. Conclusions.

3.4 General Requirements for Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements in Section 2 of this permit in accordance with the applicable provisions of the source's CAAPP Permit that address the particular type or category of emission unit.

It should be noted that this permit has been revised to enlarge the scope of the project to also include an expansion to the Heavy Truck area and to address additional equipment for the Passenger Light Truck area to increase production.

If you have any questions on this permit, please call Jason Schnepf at 217/782-2113.

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

Date Signed: _____

ECB:JMS:jws

cc: Region 2
Lotus Notes
CES

ATTACHMENT 1

Table 1.1: Limits on VOM Emission from Process Units and Operations

Operation	Department	Annual Limits (Tons/Yr)
Mixers	303	135.76
Presses & Green Tire Spray	324 & 326/726	373.97
Tire Assembly	317 & 318/718	90.55
Bead and Stock Prep	312/314, & 712/714	32.50
Extrusion/Tread End Cementing/Calendering	304/305, 306 & 705/706	168.04
Final Finish ^a	325 & 327/727	98.75
	Totals:	899.57

Notes:

^a Tire Uniformity Machines and Buffing Units

Table 1.2 - Limits on PM/PM₁₀ Emissions from New Process Units and Operations

Operation	Department/Unit	Annual Limits (Tons/Yr)
Mixers/Carbon Black Handling	Mixer #14, #15, #16, #17, #18	2.41
Final Finish	TUO Machine #43, #44, #45, #46; Buffing Unit #12, #13, #14	0.52
	Totals:	2.93

ATTACHMENT 2

Table 2.1 - Summary of Increases in Emissions with the Project (Tons/Year)

Pollutant	Emissions Increase	PSD Significant Emission Rate
VOM	763.52	40
PM/PM ₁₀	11.83	25/15
NO _x	35.23	40
CO	29.59	100
SO ₂	0.21	40

Table 2.2 - Increases in VOM Emission from Process Units (Tons/Year)

Units	Department	Past Actual Emissions	Potential Emissions	Emissions Increase
Mixers	303	15.91	135.76	119.85
Presses & Green Tire Spray	324,326,726	40.25	373.97	333.72
Tire Assembly	317,318,718	24.20	90.55	66.35
Bead and Stock Prep	312,314,712,714	1.49	32.50	31.01
Extrusion/Tread End Cementing/Calendering	304,305,306,705,706	35.68	168.04	144.81
Final Finish ^a	325,327,727	18.52	98.75	80.23
Totals:		136.05	899.57	763.52

^a Tire Uniformity Machines and Buffing Units

Table 2.3 - Increases in PM/PM₁₀ Emissions from Modified/Affected Process Units (Tons/Year)

Units	Department	Past Actual Emissions	Projected Actual Emissions	Emissions Increase
Mixers/Carbon Black Handling	303	22.11	26.44	4.33
Presses & Green Tire Spray	324,326,726	2.60	3.24	0.64
Final Finish	325,327,727	4.11	5.36	1.25
Totals:		28.82	35.04	6.22

Table 2.4 - Increases in Emissions from the Boilers (Tons/Year)^a

Pollutant	Baseline Actual Emissions	Projected Actual Emissions	Emissions Increase
PM/PM ₁₀	2.45	5.13	2.68
NO _x	32.27	67.50	35.23
CO	27.11	56.70	29.59
VOM	1.60	3.44	1.84
SO ₂	0.19	0.41	0.21

^a Increase evaluated based on the increased usage of natural gas accompanying this project, compared to average annual natural gas usage and emissions in 2003 and 2004.

ATTACHMENT 3: STANDARD PERMIT CONDITIONS

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits, which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Illinois EPA and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Illinois EPA upon the presentation of credentials, at reasonable times:
 - a. To enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
 - b. To have access to and to copy any records required to be kept under the terms and conditions of this permit,
 - c. To inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
 - d. To obtain and remove samples of any discharge or emissions of pollutants, and
 - e. To enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:
 - a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
 - b. Does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities.
 - c. Does not release the Permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations.
 - d. Does not take into consideration or attest to the structural stability of any units or parts of the project, and
 - e. In no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Illinois EPA before the equipment covered by this permit is placed into operation.
 - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Illinois EPA may file a complaint with the Board for modification, suspension or revocation of a permit.
 - a. Upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed, or
 - b. Upon finding that any standard or special conditions have been violated, or
 - c. Upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

JMS:05110019:jws

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
1021 North Grand Avenue East
P.O. Box 19506
Springfield, Illinois 62794-9506
217/782-2113

Project Summary for a
Construction Permit Application from
Continental Tire North America, Inc. for a Revised Permit for the
Expansion To an Existing Tire Manufacturing Plant in
Mount Vernon, Illinois

Site Identification No.: 081803AAB
Application No.: 05110019

Illinois EPA Contacts:

Permit Analyst: Jason Schnepf
Community Relations Coordinator: Brad Frost

Important Dates: Application Received: July 5, 2007

Comment Period Begins:
Comment Period Closes:

I. Introduction

On June 23, 2006, Continental Tire North America, Inc ("Continental") was issued a Construction Permit/Prevention of Significant Deterioration (PSD) Approval for changes to its tire manufacturing plant in Mount Vernon. This project requires an air pollution control construction permit because it involves construction and modification of emission units at the plant.

Subsequently, Continental has submitted an application to revise the original construction permit. This new application for revision of the original application is the subject of this Project Summary. The new application requests changes to the scope of the original project to include additional equipment needed to meet the increased production rates for the Passenger and Light Truck area and to include the Heavy Truck area.

II. Background

Tires are composite products made out of various rubber components, as well as fiber, textile and steel cords and reinforcing materials. These components are fabricated separately and then assembled, tire by tire, to build the uncured or green tires. The green tires are then "cooked" in molds in curing presses under appropriate pressure and temperature, vulcanizing the rubber and combining the various components of the tire into a single structure. The cured tires are then trimmed and finished, inspected and stored for shipment.

Various operations in the manufacture of tires are sources of emissions. The mixing of the base rubber is a source of particulate matter and organic emissions. Particulate matter emissions result from the solid materials added to the rubber formulation and are controlled by work practices and filter dust collectors. The organic emissions result from the energy needed to ensure that rubber and other raw materials are thoroughly mixed, which heats the rubber and incidentally results in conditions that are sufficient to generate low concentrations of organic emissions. A similar phenomenon occurs during the curing of the raw tires, with trace losses of organic emissions released each time a mold is opened. Organic emissions also occur from certain of the fabrication operations in which cements and other materials containing organic solvents are used to assemble or combine various components or subcomponents of the tire. Particulate matter emissions also occur from certain tire finishing operations, which are controlled by dust collectors.

On June 22, 2006, Continental Tire North America, Inc ("Continental") was issued a construction permit for changes to its tire manufacturing plant in Mount Vernon, specifically the Passenger and Light Truck (PLT) area of the facility. That project included new rubber mixing units, increased capacity of existing mixing units, ten new curing presses (bringing the total number of presses to 148), and other new and modified equipment changes for increased production. In conjunction with that expansion, Continental also was authorized to change the rubber formulation to include organo-silane coupling agents for the purpose of enhancing the properties of the rubber, such as reducing rolling resistance and improving vehicle fuel economy. That change to the rubber formulation resulted in additional volatile organic material (VOM) emissions during the processing and curing of the rubber at the plant.

III. Project Description

Continental has now applied for a revised permit that would expand the scope of the project to involve increased production of tires in the Heavy Truck area. This will entail installation of additional rubber mixers, curing presses, and other new equipment for heavy truck tires. This application also addresses additional tire finishing equipment that will be needed to meet the increased production rates for the PLT area.

IV. Project Emissions

The potential changes in emissions from this application in addition to the change in emissions included in the June 22, 2006 application, as set forth in the application by Continental, are provided below. For VOM, the change in emissions reflects the difference between past actual emissions and the VOM emissions that would be allowed by the construction permit. For other pollutants, the change in emissions reflects the difference in past actual emissions and future projected emissions. This data accounts for both emissions from new and modified emission units and from existing units that will not be physically altered but will experience an increase in operation from the expansion. For example, although the gas-fired boilers at the plant will not be physically altered, they will experience an increase in operation with the expansion of the plant because of the additional process steam needed to support the expansion.

Actual VOM emissions from the plant could be significantly less than the potential emissions stated below, as addressed by the permit. This is because VOM emissions in day-to-day practice could be far less than the maximum emission rates from different operation that were used by Continental in assessing the potential emissions of VOM from the plant after the expansion.

Changes in Emissions (Tons/year)

Pollutant	Past Actual Emissions	Potential/Future Emissions	Emissions Increase	PSD Significant Emission Rate
Volatile Organic Material (VOM)	137.65	903.01	765.36	40
Particulate Matter (PM)	31.27	43.10	11.83	15
Nitrogen Oxides (NO _x)	32.27	67.50	35.23	40
Carbon Monoxide (CO)	27.11	56.70	29.59	100
Sulfur Dioxide (SO ₂)	0.19	0.41	0.21	40

Because Continental has requested that this project be permitted for a significant increase in VOM emissions, the project must comply with the requirements of the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21, for emissions of VOM. Because the increases in emissions for other PSD pollutants are not significant, the project is not subject to PSD for other PSD pollutants.

V. Applicable Emission Standards

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois. The Board has standards for sources of VOM. This project should readily comply with all applicable Board standards.

Emission units at the plant are also subject to federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). These standards are focused on the fabrication operations for tire components in which cements and other materials containing organic solvents are used. The NSPS addresses these operations that are new or modified relative to the materials that are used and their VOM emissions. The NESHAP became effective to the plant on July 11, 2005, addressing fabricating operations, new and existing, relative to the solvent-containing materials that are used and hazardous air pollutant (HAP) emissions.

VI. Best Available Control Technology (BACT)

Because this application is subject to PSD for VOM emissions, Continental must use Best Available Control Technology (BACT) for VOM emissions from proposed new emission units, i.e., rubber mixers, curing presses, extruders, wire calendar, and tire finishing machines. BACT must also be used for VOM emissions from six existing rubber mixers that will be physically altered to increase capacity. Lastly, the existing curing presses, which will experience a change in the method of operation accompanied by an increase in VOM emissions, must also use BACT. Other units at the plant, e.g., component fabrication and the tire building machines, which will experience an increase in VOM emissions from the expansion of the plant but whose operations are not otherwise undergoing a physical change or change in the method of operation, are not subject to BACT.

BACT is determined on a case-by-case basis using a "top-down" procedure. The top-down procedure involves ranking available control technologies in descending order of control effectiveness. The top alternative is established as BACT unless this alternative is eliminated due to accompanying cost, energy and environmental impacts.

Continental submitted a BACT demonstration in its application reflecting its judgment as to the emission control technology and associated emission limits that should be considered BACT under the PSD rules for affected units. The Illinois EPA has reviewed the material submitted by Continental and made its independent determination of BACT. As explained below, the Illinois EPA concurred with Continental's selection of work practices as BACT, rather than use of add-on emission control devices. However, the Illinois EPA determined that these work practices must be embodied in an appropriate set of emission standards for the affected rubber mixers and curing presses, which are the units of particular concern for VOM emissions.

The BACT demonstration considered the following potentially applicable add-on VOM control technologies for the affected units: condensation, scrubbing, absorption, thermal oxidation, catalytic oxidation, and combined absorption-oxidation. It was concluded that only thermal oxidation is feasible. This is because of the nature of the compounds in the VOM emissions and the low concentration of the emissions in the exhaust stream. For example, the high molecular weight and chemical composition of the emissions would interfere with the effective functioning of absorbers or catalytic oxidizers. The low-concentration of VOM emissions would minimize the effectiveness of condensation or scrubbing. In these circumstances, thermal oxidation is the obvious candidate for add-on control technology, as it poses no concerns for technical feasibility. It is also a highly effective control technology. Accordingly, thermal oxidation is the "top alternative" for control technology for the affected units and must be carefully scrutinized for potential applicability to the affected units.

Continental submitted an economic analysis for the cost impacts of thermal oxidation. For this analysis, Continental evaluated regenerative thermal oxidation (RTO), the type of thermal oxidation that is most inexpensive when controlling large volumes of exhaust with a low concentration of VOM, as present with the affected units. This analysis also addressed both individual units and various combinations of affected units, to consider the most effective application of RTO control system(s). This analysis shows cost impacts that are on the order of \$13,000 per ton for the most effective application of an RTO. This is not surprising as the concentrations of the VOM emissions from the affected units, which are all below 100 ppm, are in the range at which the cost impacts of an RTO can be significant. As this economic analysis did not fully account for all costs, e.g., the amounts of VOM emissions being controlled were overstated, this is a conservative estimate of the cost impacts of RTO control. In addition, a review of the control measures used at other new and modified rubber mixers and curing presses shows that work practices are routinely used to minimize the VOM emissions from these operations, not RTO systems. Accordingly, the technology for BACT was determined to be appropriate work practices to minimize emissions for VOM from the affected new and modified units.

Of particular interest for the work practices established as BACT was the possible availability and use of alternative coupling agents, which have lower associated VOM emissions. This is because the coupling agents contribute substantially to emissions from this project. Continental indicates that it has evaluated alternative materials and not identified lower emitting coupling agents that provide comparable performance in the rubber formulations for the tires. Continental is also concerned that it be able to use coupling agents whose use in tire production is well established, so as to assure the safety and reliability of the tires that it manufactures. In these circumstances, it is not appropriate for the BACT determination to mandate that Continental use alternative coupling agents whose use is not well-established.

In the draft permit, BACT is established in terms of specific limits for the rates and concentrations of VOM emissions from the mixers and curing presses as well as other new emission units with VOM emissions. In addition, a limit is proposed for the rate of VOM emissions directly associated with use of silica coupling agents. It is not expected that these limitations will

restrict the operation of the affected units after the expansion. However, these limits memorialize the aspects of VOM emissions from the affected units that underlie the BACT determination. As such these BACT limits indirectly address possible future changes to the affected units, which cannot be specifically identified and addressed at this time. They assure that BACT would be reevaluated if changes were proposed in the future that would result in VOM emissions from the affected units that are beyond the levels that are the basis of the BACT determination now being made for the proposed expansion of the plant.

VII. Air Quality Analysis

The Illinois EPA reviewed the ambient air quality analysis conducted by Trinity Consultants on behalf of Continental, on the application for this project, to assess the impact of the VOM emissions of the proposed project on air quality. Under the PSD rules, this analysis must determine whether the VOM emissions of the proposed project will cause or contribute to a violation of any applicable air quality standard.

The VOM emissions of the plant are of concern for their potential impact on air quality for ozone, as VOM emissions are a precursor to the formation of ozone in the atmosphere. USEPA has developed a simplified analytical method for assessing ozone impacts for purposes of routine PSD permitting. This methodology predicts the maximum increase in 1-hour ozone concentration from the increase in VOM emissions from a proposed project. The Illinois EPA requires that 1-hour ozone impacts be used to address the 8-hour NAAQS as an interim approach until an equivalent methodology is developed for this purpose. The screening tables are conservative in their assumptions concerning baseline conditions for VOM and NO_x emissions from the sources under evaluation. Trinity Consultants used this approach in calculating a maximum impact from the proposed project on ambient ozone concentration in the surrounding area.

Trinity Consultants performed the screening table calculations for two scenarios. The first scenario represented present operations considering current emissions at the tire plant, while the second reflects emissions of VOM and NO_x after expansion. (NO_x emissions are considered in the analysis because NO_x emissions are also a precursor to formation of ozone in the atmosphere.) Under the current operating scenario, the calculated peak contribution to ozone concentrations was 0.014 ppm (parts per million). Under the future scenario for the plant expansion, the calculated concentration is 0.026 ppm. The difference in these impacts, 0.012 ppm, is the potential increase in ozone impact predicted due to the expansion.

To determine whether the predicted increase in impact will violate the ozone air quality standard, this concentration was added to a background concentration for ambient ozone that is appropriate for the area surrounding the plant. The background concentration was obtained from the Illinois EPA's ozone monitoring in Dale, Illinois, located 35 miles to the southeast of the Continental plant. This is the monitoring station closest to the plant at which ozone air quality is measured. The fourth highest concentration in three years of data (2003, 2004, and 2005) was used to represent background concentrations, to be consistent with the form of the one-hour ozone air

quality standard. Adding the predicted increase in peak impact from the plant expansion (0.012 ppm) to this maximum background value (0.085 ppm) yields a maximum total ozone concentration of 0.097 ppm. This is less than the historic one-hour ozone air quality standard, 0.12 ppm. It is concluded from this analysis that the proposed expansion of the Continental plant will not cause a violation of the ozone ambient air quality standard.

The application also considered other air-quality related impacts of the proposed project as required by the PSD rules. No industrial or other growth in the area related to the plant expansion were identified, which would also have impacts on air quality. Significant impacts on soils, vegetation or visibility were also not identified.

VIII. Draft Permit

The conditions of the draft permit contain limitations and requirements to assure that the modifications addressed by this application will comply with all applicable Board emissions standards and use BACT as required by the PSD rules.

The permit conditions also establish appropriate compliance procedures, including inspection practices, recordkeeping requirements, monitoring requirements and reporting requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the expanded plant is operated within the limitations set by the permit.

IX. Request for Comments

It is the Illinois EPA's preliminary determination that the project meets all applicable state and federal air pollution control requirements, subject to the conditions proposed in the draft permit. The Illinois EPA is therefore proposing to issue a construction permit for this project.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.

217/782-2113

CONSTRUCTION PERMIT - PSD APPROVAL
NESHAP SOURCE
NSPS SOURCE

PERMITTEE

Continental Tire North America, Inc.
Attn: Keith Pearson
11525 North Illinois Highway 142
Mount Vernon, Illinois 62864

Application No.: 05110019

I.D. No.: 081803AAB

Applicant's Designation:

Date Received: November 7, 2005

Subject: Plant Expansion

Date Issued: June 23, 2006

Location: 11525 North Illinois Highway 142, Mount Vernon

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an expansion to an existing tire manufacturing plant as described in the above referenced application. This Permit is granted based upon and subject to the findings and conditions that follow:

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) for this modification, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 *et seq.*, the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and conditions which follow:

Findings

2. Continental Tire North America, Inc ("Continental") has requested a permit for changes to its tire manufacturing plant in Mount Vernon. The project includes new rubber mixing units, increased capacity of existing mixing units, ten new curing presses (bringing the total number of presses to 148), and other new and modified equipment changes for increased production. In conjunction with the expansion, Continental has also proposed changes to the rubber formulation to include organo-silane coupling agents for the purpose of enhancing the properties of the rubber, such as reducing rolling resistance and improving vehicle fuel economy. This change to the rubber formulation will result in additional volatile organic material (VOM) emissions during the processing and curing of the rubber at the plant.

2. Jefferson County, where the plant is located, is currently designated attainment for all criteria pollutants.
- 3a. The proposed project has the potential to increase emissions of VOM by more than 40 tons per year, as summarized in Attachment 2, Table 2.1. The project is therefore subject to PSD review as a major modification for VOM emissions.
- b. This project would not result in significant increase in emissions of other PSD pollutants as summarized in Attachment 2, Tables 2.2 and 2.3.
4. After reviewing all the materials submitted by Continental, the Illinois EPA has determined that the plant, as now proposed, will (i) be in compliance with all applicable Board emission standards, (ii) utilize Best Available Control Technology (BACT) for emissions of VOM, and (iii) be in compliance with other limits as set in Conditions of this permit.
5. The air quality analysis submitted by Continental and reviewed by the Illinois EPA shows that the proposed project will not cause violations of the ambient air quality standards for ozone.
6. The Illinois EPA has determined that the plant, as now proposed, would comply with all applicable Illinois Air Pollution Control Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
7. A copy of the application and the Illinois EPA's project summary of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing approval to construct the proposed project subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization of the Illinois EPA.

Conditions

1.0 OVERALL SOURCE CONDITIONS

1.1 Federal Regulations of General Applicability

- a. This permit is issued based on the plant being subject to the NESHAP, 40 CFR Part 63 Subpart XXXX: Rubber Tire Manufacturing, because the plant manufactures rubber tires and is a major source for hazardous air pollutants. The compliance date for this standard for existing sources is July 11, 2005, which has already passed.

- i. For all tire production processes at the source that use or process cements and solvents or constitute tire cord production, the Permittee shall comply with all applicable requirements in 40 CFR 63 Subpart XXXX, including the emission control requirements in Tables 1 through 4, requirements for compliance demonstrations, monitoring requirements, recordkeeping requirements and reporting requirements.
 - ii. This permit is issued based on the affected mixers and curing presses (See Condition 2.1) being rubber processing operations that are not subject to any emission limitations or other requirement under the NESHAP Subpart XXXX, pursuant to 40 CFR 63.5982(b)(4).
- b. This permit is issued based on certain cementing operations at the plant being subject to the NSPS for Rubber Tire Manufacturing, 40 CFR Part 60 Subpart BBB, as addressed in the current CAAPP permit for the source.

1.2 State Regulations of Generally Applicability

- a. All emission units at the plant are subject to and shall comply with 35 IAC 212.123 and 212.301, which limit opacity and visible emissions from the units.
- b. All process emission units at the plant are subject to and shall comply with 35 IAC 212.321, which limits the rate of particulate matter (PM) emissions from the units based on the unit's process weight rate, as defined at 35 IAC 211.5250.
- c. All process emission units at the plant, other than storage tanks, are subject to 35 IAC 215.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit unless no odor nuisance exists and the organic material qualifies as non-photochemically reactive material as defined at 35 IAC 211.4690.

1.3 Effect of Permit on Limitations and Requirements in Other Permits

- a. This permit does not relax or revise limitations or requirements contained in other permits for the source, including Construction Permit/PSD Approval 89030044, originally issued September 11, 1989, except as specifically stated.
- b. Where changes in limitations or requirements are authorized, those changes are being made in conjunction with the proposed project and shall take effect when new or modified emission initially startup pursuant to this permit.

1.4 Modeling and Mitigation for Emissions of Heavy Metals

- a. The Permittee shall have modeling conducted for wet and dry deposition of emissions of heavy metals, i.e., cadmium, chromium, cobalt, lead, and nickel, due to the expansion of the plant to allow further evaluation of the potential effect of the emissions of these pollutants from the expansion project on listed endangered species and critical habitat. This modeling shall be conducted using appropriate modeling methods and input data accepted by the USEPA for this type of modeling. This modeling shall be completed within 60 days of issuance of this permit with results promptly submitted to the Illinois EPA and a formal report submitted within 30 days of the completion of modeling.
- b. If this modeling and associated evaluation does not demonstrate that the emissions of this project would not jeopardize listed endangered species and would not destroy or adversely modify critical habitat, the Permittee shall undertake mitigation measures as part of this project as necessary to reasonably ensure that such affects will not result from this project.
- c. If mitigation measures are required, the Permittee shall submit its proposal for such measures, with explanation and supporting information, to the Illinois within 60 days of being formally notified by the Illinois EPA that such measures are required. These mitigation measures may include site-specific testing for metals emissions to demonstrate lower emissions, with installation additional particulate matter control for selected emission units only if needed based on the results of such testing. The implementation of mitigation measures shall be subject to prior review and comment by the Illinois EPA and shall be completed by the startup of the expanded plant or 12 months after the Illinois EPA completes its review of the mitigation measures proposed by the Permittee, whichever is later.

1.5 Authorization to Construct

- a. As provided by 40 CFR 52.21(r)(2), this permit shall become invalid if construction is not commenced within 18 months of the PSD approval becoming effective, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time. The Illinois EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This condition supersedes Standard Condition 1 of the permit. (See Attachment 3)
- b. For purposes of the above provisions, the definitions of "construction" and "commence" at 40 CFR 52.21(b) (8) and (9) shall apply, which requires that a source must enter into a binding agreement for on-site construction or begin actual on-

site construction. (See also the definition of "begin actual construction," 40 CFR 52.21(b)(11)).

1.6 Authorization for Operation

- a. Under this permit, the modified plant may be operated for a period that ends 180 days after the initial startup of new or modified emission units pursuant to this project. This period may be extended by Illinois EPA upon request of the Permittee if additional time is needed to complete shakedown or perform emission testing. This condition supersedes Standard Condition 6. (See Attachment 3)
- b. Upon successful completion of testing in accordance with Condition 2.1.7 that demonstrates compliance with applicable short-term emission limits, the Permittee is allowed to operate under this Construction Permit until its CAAPP Permit is reissued or revised to address this project provided that the Permittee applies for a renewed or revised CAAPP permit within one year of initial startup of new or modified emission units pursuant to this project, as provided by Section 39.5(5) of the Environmental Protection Act.

1.7 Other Applicable Requirements

- a. This permit does not relieve the Permittee of the responsibility to comply with all local, state and federal regulations that are part of the applicable Illinois' State Implementation Plan, as well as all other applicable federal, state and local requirements.

2.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

2.1 Rubber Mixers and Curing Presses

2.1.1 Description

Banbury Mixers

The Banbury mixers operate in batch mode to produce the feedstock for the subsequent tire manufacturing processes. Rubber is mixed several times to achieve the necessary properties and composition, with the last stage of mixing producing "productive" rubber, which contains the additional ingredients, the curing package, necessary for the vulcanization or curing of the rubber when the tires are produced in the plant.

Particulate matter emissions from the mixers are controlled by fabric filters, also known as "baghouses".

The temperature of the mixing units is set by process limits to control fire hazards, therefore, the temperature basis for calculating emissions will not change. Organic solvents are not used during mixing or curing operations.

Curing Presses

Tire curing is the operation during the manufacture of tires where the assembled "green" tire is vulcanized and converted into a finished tire. Curing presses consist of a frame into which a tire mold of the appropriate size, contour, tread pattern, and sidewall design is placed. A green tire is loaded into the mold with a rubber bladder inflated into the center of the tire, into which steam is injected to provide the pressure and temperature required to form and vulcanize the tire over a specified time. Dual cavity presses hold two molds, typically sized for passenger and truck sized tire molds, to produce two tires at a time. Dome presses hold only one mold and are sized for larger farm and Off the Road sized tires.

2.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Rubber Mixers	16 Banbury Rubber Mixers New: #14, #15 and #16 Modified: #2, #4, #5, #8 #9 and #12 Existing: 1, #3, #6, #7, #10, #11 and # 13	Baghouses
Curing Presses	Curing Trench #1 (30 Existing Curing Presses)	None
	Curing Trench #2 (30 Existing Curing Presses)	
	Curing Trench #3 (26 Existing Curing Presses)	
	Curing Trench #4 (30 Existing Curing Presses)	

Emission Unit	Description	Control Equipment
Curing Presses (Cont.)	Curing Trench #5 (32 Existing Presses and 10 New Presses, Total 42 Curing Presses)	None

2.1.3-1 Applicability Provisions and Applicable Regulations

- a. i. An "affected mixer" is a mixer that prepares rubber compounds as described in Conditions 2.1.1 and 2.1.2.
- ii. An "affected press" is a tire curing press described in Condition 2.1.1 and 2.1.2.
- b. Each affected unit shall comply with the applicable emission standards identified in the source's CAAPP Permit.

2.1.3-2 Control Technology Determination

- a. Emission of VOM from the affected mixers and affected presses, in total, attributable to the use of silicon coupling agents shall not exceed 0.387 pounds per pound of coupler.
- b. Emissions of VOM from different categories of affected units shall not exceed the following limits. Compliance with these limits shall be determined from representative emission testing for the formulation of rubber:
 - i. Affected mixers for silica formulation, non-productive rubber: 0.003 pounds VOM per pound of rubber, which includes the portion of VOM emissions generated during mixing due to the presence of coupling agent as identified in Condition 2.1.3-2(a).
 - ii. Affected mixers for non-silica non-productive rubber: 0.000215 pounds VOM per pound of rubber.
 - iii. Affected mixers for productive rubber: 0.0000215 pounds VOM per pound of rubber.
 - iv. Affected curing presses: 0.000337 pounds VOM per pound of rubber.
- c. i. The concentration of VOM from affected mixers shall not exceed 25 ppm and 80 ppm, for mixers handling non-silica and silica rubber formulations, respectively. Compliance with these limits shall be determined by the actual flow rate measured in accordance with Condition 2.1.7(a) and VOM emissions as determined for Conditions 2.1.3-2(b)(i) and (ii).

- ii. The concentration of VOM from the curing department, i.e., the area in which the affected presses are located, shall not exceed 20 ppm overall from curing trenches #1-5. Compliance with this limit shall be determined by engineering calculations for the VOM emissions from the affected curing presses and exhaust air flow from the affected trenches.
- iii. These calculations shall be updated whenever significant changes to the affected mixers or presses occur, e.g., installation of a new mixer, changes to the raw material, etc.

Note: This condition represents the application of Best Available Control Technology (BACT) for the affected units.

2.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected units not being subject to the control requirements of the NSPS, 40 CFR Part 60 Subpart BBB, because the units are not cementing or spraying operations, as addressed by the requirements of the NSPS, 40 CFR 60.540.

2.1.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected units in a manner consistent with good air pollution control practice for minimizing emissions.
- b. The Permittee shall perform inspections of each affected unit on at least a quarterly basis, including associated control measures, to confirm compliance with the requirements of Condition 2.1.3 and 2.1.6(b).
- c. The Permittee shall perform detailed inspections of the dust collection equipment for the affected units at least every 15 months while the units are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the unit is out of service and a follow-up inspection performed after any such activities are completed.

2.1.6 Emission Limitations

- a.
 - i. Emissions of VOM from the affected units shall not exceed 51.8 tons per month and 310.6 tons per year.
 - ii. Compliance with this limit shall be determined using appropriate emission factors for the VOM emissions from the affected units. In particular, the emissions of VOM from the affected mixers and presses

attributable to use of organo-silane coupling agents or other similar rubber additives shall be determined by material balance based on the stoichiometric loss of VOM due to the breakdown of the coupling compound during mixing and curing.

- b. i. A. PM emissions from the affected mixers shall not exceed 0.0546 lb per ton of rubber processed.
- B. PM emissions from the new mixers (Mixer #14, #15, #16) shall not exceed the limits in Attachment 1, Table 1.2.
- ii. This permit is issued based on negligible emissions of PM from the curing presses. For this purpose, emissions of PM from all such sources shall not exceed 0.44 tons/year.

2.1.7 Testing Requirements

- a. i. Within 180 days of startup of the plant expansion, the Permittee shall have the VOM and PM emissions from selected new and modified affected mixers (two silica mixers and two non-silica mixers) measured at the Permittee's expense by an approved testing service.

Notwithstanding the above, the Illinois EPA may upon request of the Permittee provide more time for testing pursuant to this permit if such time is reasonably needed to address unavoidable delays in performance of testing or waive this testing if it determines that this factor is supported by test data.

- ii. The following methods and procedures shall be used for testing of emissions unless other use of other USEPA methods is approved by the Illinois EPA as part of the approval of the test plan. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
VOM	USEPA Method 18 and Method 25 or 25A, as appropriate

- b. Upon request of the Illinois EPA, the Permittee shall promptly have the opacity from the affected units measured

at the Permittee's expense by a certified observer using USEPA Method 9.

2.1.8 Recordkeeping Requirements

- a. The Permittee shall maintain the following operating records for the affected mixers:
 - i. Total throughput of rubber for the affected mixers (tons/month and tons/year).
 - ii. Usage of organo-silane coupling agents, by type (tons/month and tons/year).
- b. Permittee shall maintain an operating log for the affected units that, at a minimum, includes:
 - i. Information for any significant changes in the compounding process, the type of silane coupler used, or the curing process that may affect the evolution of VOM, with description.
 - ii. Identifies each period when an affected unit or the associated control device operated in an atypical manner as related to generation of VOM or PM emissions and, as related to PM emissions whether the applicable limit in Condition 2.1.6 may have been exceeded.
- c. The Permittee shall maintain the following records for emissions from the affected mixers and presses:
 - i. A file containing the emission factors used to calculate the VOM and PM emissions from the different types of affected units, with supporting documentation and calculations, which shall be kept current.
 - ii. The emissions of VOM for the affected mixers and for the affected presses (tons/month and tons/year), with supporting calculations.
 - iii. The emissions of PM from each new or modified affected mixers (tons/month and tons/year), with supporting calculations.
 - iv. The total emissions of PM from the existing affected mixers (tons/month and tons/year), with supporting calculations.
- d. The Permittee shall maintain an inspection and maintenance log or other records for each affected mixer and associated

emission control devices that, at a minimum, document performance of the inspections and results of inspections required by Condition 2.1.5(b) and (c) and other activities performed to maintain proper operation as related to control of emissions.

- e. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.1.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.
- f. The following records shall be kept for the existing affected mixers:
 - i. Before beginning actual construction of the project, the Permittee shall document and maintain a record of the following information [40 CFR 52.21(r)(6)(i)]:
 - A. A description of the project;
 - B. Identification of the emissions unit(s) whose emissions of a regulated PSD pollutant could be affected by the project; and
 - C. A description of the applicability test used to determine that the project is not a major modification for any regulated PSD pollutant (except VOM), including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.
 - ii. The Permittee shall keep records for the emissions of any regulated PSD pollutant (except VOM) that could increase as a result of the project and that is emitted by any emissions unit identified in 40 CFR 52.21(r)(6)(i)(b) (See also Condition 2.1.8(f)(i)(B)) and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular

operations after the change if the project increases the design capacity of or potential to emit that regulated PSD pollutant at such emissions unit [40 CFR 52.21(r)(6)(iii)].

2.1.9 Reporting Requirements

- a. For the existing affected mixers, the Permittee shall submit a report to the Illinois EPA and USEPA if the annual emissions, in tons per year, from the project identified in 40 CFR 52.21(r)(6)(i) (See also Condition 2.1.8(f)(i)), exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c), by a significant amount (as defined in 40 CFR 52.21(b)(23)) for that regulated PSD pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c). Such report shall be submitted to the Illinois EPA and USEPA within 60 days after the end of such year. The report shall contain the following [40 CFR 52.21(r)(6)(v)]:
 - i. The name, address and telephone number of the major stationary source;
 - ii. The annual emissions as calculated pursuant to 40 CFR 52.21(r)(6)(iii); and
 - iii. Any other information that the Permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

2.2 Other Process Operations (VOM Emission Units)

2.2.1 Description

Various emission units existing equipment at the plant, other than the rubber mixers and curing presses are not being physically modified as part of this project but will experience an increase in VOM emissions due to increase in production with this project.

2.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Other Process Units - VOM	Extrusion/Calendering Areas	None
	Tire Stock and Bead Preparation Areas	None
	Tire Building Machines	None
	Tire Spraying	Scrubber

2.2.3 Applicable Provisions and Regulations

- a. An "affected unit" is a unit in a department described in Conditions 2.2.1 and 2.2.2.
- b. Each affected unit shall comply with the applicable emission standards identified in the source's CAAPP Permit.
- c. Each affected unit shall comply with the applicable emission control requirements of the NESHAP, 40 CFR Part 63 Subpart XXXX. (See also Condition 1.1.)

2.2.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on this project not resulting in requirement for BACT for the affected units under the PSD rules because the affected units will not be experiencing an increase in VOM emissions as a result of a physical change or a change in the method of operation of the units, as provided by 40 CFR 52.21(j)(3).

2.2.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected units in a manner consistent with good air pollution control practice for minimizing emissions.

2.2.6 Emission Limitations

- a. Total VOM emission from the affected units in the different departments shall not exceed the applicable limits in Attachment 1, Table 1.1.
- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

2.2.7 Testing Requirements

- a. The Permittee shall comply with applicable testing and monitoring requirements of the NESHAP for the affected units.
- b. Upon request of the Illinois EPA, the Permittee shall have the VOM emissions from designated affected units measured at the Permittee's expense by an approved testing service using standard USEPA Test methods.

2.2.8 Recordkeeping Requirements

- a. The Permittee shall comply with applicable testing and monitoring requirements of the NESHAP for the affected units.
- b. The Permittee shall maintain records for the total throughput (tons/month and tons/year) or other measure of activity (on a monthly and annual basis) for the affected units in each department.
- c. The Permittee shall maintain an operating log or other records for the affected units in each department that, at a minimum, identifies each period when a unit operated in an atypical manner as related to generation of emissions.
- d.
 - i. The Permittee shall keep a file, which shall be kept current, that contains the emission factors and other operating data used to calculate VOM emissions from the affected units in different departments, with supporting documentation.
 - ii. The Permittee shall maintain records of the total emissions of VOM (tons/month and tons/year) from the affected units in each department, with supporting calculations.

2.2.9 Reporting Requirements

- a. The Permittee shall comply with applicable reporting requirements of the NESHAP for the affected units.

2.3 Other Process Operations (PM Emission Units)

2.3.1 Description

This project includes installation of new emission units, specifically, two new tire uniformity machines and a new white sidewall buffing unit. These units are regulated principally as they are sources of PM emissions.

Existing equipment will also handle additional production.

2.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Control Equipment
Other Process Units - PM	Rubber Extruders	None
	25 Tire Uniformity Machines, including new Machines #43 and #45	Cyclones
	12 White sidewall Buffing Units, including new Unit #12	Cyclones

2.3.3 Applicable Provisions and Regulations

- a. An "affected unit" is a unit described in Condition 2.3.1 and 2.3.2.
- b. Each affected unit shall comply with the applicable emission standards identified in the source's CAAPP Permit.

2.3.4 Non-Applicability of Regulations of Concern

- a. None

2.3.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected units in a manner consistent with good air pollution control practice for minimizing emissions.
- b. The Permittee shall perform inspections of each affected units on at least a quarterly basis, including associated control measures, to confirm compliance with the requirements of Condition 2.3.3 and 2.3.6(a).
- c. The Permittee shall perform detailed inspections of the dust collection equipment for the affected units at least every 15 months while the units are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the unit is out of service and a follow-up inspection performed after any such activities are completed.

2.3.6 Emission Limitations

- a. i. PM emissions from extruders shall not exceed 0.000224 lb per ton of extruded material.
- ii. PM emissions from each affected tire uniformity machine shall not exceed 31.2 lb per ton of rubber removed.
- iii. PM emissions from each affected buffer shall not exceed 3.25 lb per ton of rubber removed.
- b. PM emissions from the new affected units shall not exceed the limits in Attachment 1, Table 1.2.

2.3.7 Testing Requirements

- a. Upon request of the Illinois EPA, the Permittee shall have the PM emissions from the affected units measured at the Permittee's expense by an approved testing service using standard USEPA Test Methods.
- b. Upon request of the Illinois EPA, the Permittee shall promptly have the opacity from the affected units measured at the Permittee's expense by a certified observer using USEPA Method 9.

2.3.8 Recordkeeping Requirements

- a. The Permittee shall maintain records for the total throughput (tons/month and tons/year) or other measure of activity (on a monthly and annual basis) for each category of affected units.
- b. The Permittee shall maintain an operating log or other record for each category of affected units that, at a minimum, identifies each period when a unit or the associated control device operated in an atypical manner as related to generation of emissions.
- c. i. The Permittee shall keep a file, which shall be kept current, that contains the emission factors used to calculate PM emissions from different categories of affected units with supporting documentation.
- ii. The Permittee shall maintain records of the total emissions of PM of each category of affected unit (tons/month and tons/year), with supporting calculations.
- d. The Permittee shall maintain an inspection and maintenance log or other records for each category of affected unit and

associated emission control devices that, at a minimum, document performance of the inspections and results of inspections required by Condition 2.3.5(b) and (c) and other activities performed to maintain proper operation as related to control of emissions.

- e. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.3.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.

2.4 Boilers

2.4.1 Description

Steam for the tire curing presses and certain other process equipment at the plant is provided by four existing boilers. These boilers are not being physically changed as part of this project but will experience an increase in use due to the increase in production.

The boilers are normally fired on natural gas. Distillate fuel oil can also be fired in the event of an interruption in the natural gas supply.

2.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Group	Description	Control Equipment
Boilers	4 Existing Boilers Nom. capacity 72 mmBtu/hr each	None

2.4.3 Applicable Provisions and Regulations

- a. An "affected boiler" is a boiler described in Conditions 2.4.1 and 2.4.2.
- b. Each affected boiler shall comply with the applicable emission standards identified in the source's CAAPP Permit.

2.4.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected boilers being existing boilers for purposes of the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, so that the boilers are not subject to emission control requirements pursuant to these rules.

Note: If reconstruction of an affected boiler had commenced after January 13, 2003 or an affected boiler is reconstructed in the future, it would be subject to emission control requirements under this NESHAP.

2.4.5 Operating Requirements and Work Practices

- a. At all times, the Permittee shall maintain and operate the affected boilers, in a manner consistent with good air pollution control practice for minimizing emissions.

2.4.6 Emission Limitations

None.

2.4.7 Testing Requirements

- a. Upon request of the Illinois EPA, the Permittee shall promptly have the emissions of NO_x and PM from the boilers measured at the Permittee's expense by an approved testing service using standard USEPA test methods.
- b. Upon request of the Illinois EPA, the Permittee shall promptly have the opacity from the boilers measured at the Permittee's expense by a certified observer using USEPA Method 9.

2.4.8 Recordkeeping Requirements

- a. The following records shall be kept for the affected boilers:
 - i. Before beginning actual construction of the project, the Permittee shall document and maintain a record of the following information [40 CFR 52.21(r)(6)(i)]:
 - A. A description of the project;
 - B. Identification of the emissions unit(s) whose emissions of a regulated PSD pollutant could be affected by the project; and
 - C. A description of the applicability test used to determine that the project is not a major modification for any regulated PSD pollutant (except VOM), including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.
 - ii. The Permittee shall keep records for the emissions of any regulated PSD pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in 40 CFR 52.21(r)(6)(i)(b) (See also Condition 2.4.8(a)(i)(B)) and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit that regulated PSD pollutant at such emissions unit [40 CFR 52.21(r)(6)(iii)].

- b. The Permittee shall maintain an inspection and maintenance log or other records for each boiler that, at a minimum, documents activities performed to maintain proper operation of the boiler as related to emissions, including documentation for periodic combustion evaluations performed for the boiler, with the data that is measured with the diagnostic instruments.
- c. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected boilers that it conducts or that are conducted at its behest by individuals who are qualified to make such observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 2.4.7(b), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected process, the observed opacity, and copies of the raw data sheets for the measurements.

2.4.9 Reporting Requirements

- a. For the affected boilers, the Permittee shall submit a report to the Illinois EPA and USEPA if the annual emissions, in tons per year, from the project identified in 40 CFR 52.21(r)(6)(i) (See also Condition 2.4.8(a)(i)), exceed the baseline actual emissions (as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c), by a significant amount (as defined in 40 CFR 52.21(b)(23)) for that regulated PSD pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to 40 CFR 52.21(r)(6)(i)(c). Such report shall be submitted to the Illinois EPA and USEPA within 60 days after the end of such year. The report shall contain the following [40 CFR 52.21(r)(6)(v)]:
 - i. The name, address and telephone number of the major stationary source;
 - ii. The annual emissions as calculated pursuant to 40 CFR 52.21(r)(6)(iii); and
 - iii. Any other information that the Permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

3.0 GENERAL CONDITIONS

3.1 Standard Conditions

Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by other conditions in the permit. (See Attachment 3.)

3.2 Compliance with Annual Limits

Unless otherwise specified in a particular condition, compliance with annual limits established by this permit shall be determined from a running total of 12 months of data, that is, from the sum of the data for the current month plus the preceding 11 months (total 12 months of data).

3.3 General Requirements for Emission Testing pursuant to this Permit

The Permittee shall comply with the following requirements for all emission testing conducted pursuant to this permit

- a. The Permittee shall submit a written test plan to the Illinois EPA for its approval for initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 90 days prior to the actual date of testing and include the following information as a minimum:
 - i. A description of the planned test procedures.
 - ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.
 - iv. The methodology that will be used to determine the operating rate and other process parameters during the period of testing.
- b. The Permittee shall notify the Illinois EPA prior to conducting testing to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

- c. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. These reports shall include as a minimum:
 - i. General Information, including date and time of testing, units tested and test personnel.
 - ii. A summary of results.
 - iii. A description of the test procedures.
 - iv. Detailed description of operating conditions of the emission unit when tested, including:
 - A. Operating rate and other process information; and
 - B. Control equipment operating parameters.
 - v. Copies of raw data, data sheets and calculations.
 - vi. Conclusions.

3.4 General Requirements for Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements in Section 2 of this permit in accordance with the applicable provisions of the source's CAAPP Permit that address the particular type or category of emission unit.

If you have any questions on this permit, please call Jason Schnepf at 217/782-2113.

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

DES:JMS:psj

cc: Region 2
Lotus Notes
CES

ATTACHMENT 1

Table 1.1: Limits on VOM Emission from Process Units and Operations

Operation	Department	Annual Limits (Tons/Yr)
Mixers	303	80.17
Presses & Green Tire Spray	324 & 326/726	230.34
Tire Assembly	317 & 318/718	90.55
Bead and Stock Prep	312/314, & 712/714	32.50
Extrusion/Tread End Cementing/Calendering	304/305, 306 & 705/706	179.38
Final Finish ^a	325 & 327/727	98.72
	Totals:	711.66

Notes:

^a Tire Uniformity Machines and Buffing Units

Table 1.2 - Limits on PM Emissions from New Process Units and Operations

Operation	Department/Unit	Annual Limits (Tons/Yr)
Mixers/Carbon Black Handling	Mixer #14, #15, #16	1.82
Final Finish	TUO Machine #43, #45; Buffing Unit #12	0.26
	Totals:	2.08

ATTACHMENT 2

Table 2.1 - Summary of Increases in Emissions with the Project (Tons/Year)

Pollutant	Emissions Increase	PSD Significant Emission Rate
VOM	577.26	40
PM/PM ₁₀	8.05	25/15
NO _x	35.23	40
CO	29.59	100
SO ₂	0.21	40

Table 2.2 - Increases in VOM Emission from Process Units (Tons/Year)

Units	Dept.	Past Actual Emissions	Potential Emissions	Emissions Increase
Mixers	303	15.91	80.17	64.26
Presses & Green Tire Spray	324,326,726	40.25	230.34	190.09
Tire Assembly	317,318,718	24.20	90.55	66.35
Bead and Stock Prep	312,314,712,714	1.49	32.50	31.01
Extrusion/Tread End Cementing/Calendering	304,305,306,705,706	35.69	179.38	143.69
Final Finish ^a	325,327,727	18.52	98.72	80.20
Totals:		136.06	711.66	575.60

Notes:

^a Tire Uniformity Machines and Buffing Units

Table 2.3 - Increases in PM/PM₁₀ Emissions from Modified/Affected Process Units (Tons/Year)

Units	Dept.	Past Actual Emissions	Projected Actual Emissions	Emissions Increase
Mixers/Carbon Black Handling	303	22.11	24.03	1.92
Presses & Green Tire Spray	324,326,726	2.60	3.24	0.64
Final Finish ^a	325,327,727	4.11	4.84	0.73
Totals:		28.82	32.11	3.29

Notes:

^a New Units: Buffer 12 and Tire Uniformity Machines 43 & 45

Table 2.4 - Increases in Emissions from the Boilers (Tons/Year)^a

Pollutant	Baseline Actual Emissions	Projected Actual Emissions	Emissions Increase
PM/PM ₁₀	2.45	5.13	2.68
NO _x	32.27	67.50	35.23
CO	27.11	56.70	29.59
VOM	1.78	3.44	1.66
SO ₂	0.19	0.41	0.21

Notes:

^a Increase evaluated based on the increased usage of natural gas accompanying this project, compared to average annual natural gas usage and emissions in 2003 and 2004.

ATTACHMENT 3: STANDARD PERMIT CONDITIONS

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits, which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Illinois EPA and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Illinois EPA upon the presentation of credentials, at reasonable times:
 - a. To enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
 - b. To have access to and to copy any records required to be kept under the terms and conditions of this permit,
 - c. To inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
 - d. To obtain and remove samples of any discharge or emissions of pollutants, and
 - e. To enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:
 - a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
 - b. Does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities.
 - c. Does not release the Permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations.
 - d. Does not take into consideration or attest to the structural stability of any units or parts of the project, and
 - e. In no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Illinois EPA before the equipment covered by this permit is placed into operation.
 - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Illinois EPA may file a complaint with the Board for modification, suspension or revocation of a permit.
 - a. Upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed, or
 - b. Upon finding that any standard or special conditions have been violated, or
 - c. Upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

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