

Oregon Rubber Company, DBA
 Oregon Tread Rubber & Wyatt's Tire Company
 Permit No. 206127
 Expiration Date: [Insert expiration date]

Lane Regional Air Protection Agency
 Simple Air Contaminant Discharge Permit

REVIEW REPORT

Oregon Rubber Company, DBA
Oregon Tread Rubber & Wyatt's Tire Company

Permit No. 206127

3595 W. First Avenue and 68 Wallis Street
 Eugene, OR 97402
<https://www.oregonrubber.com/index.html>
<http://www.wyattstireco.com/>

Source Information:

SIC	2822 Synthetic Rubber 7534 Recapping & Retreading tires
NAICS	325212 326212

Source Categories (LRAPA Title 37, Table 1)	71 – Tire Manufacturing
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	n
Emission credits	n
Special Conditions	n
Compliance schedule	n

Source test [date(s)]	n
COMS	n
CEMS	n
Ambient monitoring	n

Reporting Requirements:

Annual report (due date)	Feb 15
NSPS Report (due date)	n
Monthly report (due dates)	n

Excess emissions report	y
Other reports	n

Air Programs:

NSPS (list subparts)	n
NESHAP (list subparts)	n
CAM	n
Regional Haze (RH)	n
Synthetic Minor (SM)	n
Part 68 Risk Management	n
Title V	n
ACDP (SIP)	n
New Source Review (NSR)	n
Prevention of Significant Deterioration (PSD)	n
Acid Rain	n
Clean Air Mercury Rule (CAMR)	n
TACT	n

Permitting Action

1. Oregon Rubber Company (OTR or "the facility") operates a tire tread manufacturing and tire re-treading facility at 3595 West First Avenue and, across the street, at 68 Wallis Street in Eugene, Oregon.

General Background Information

2. Oregon Rubber Company operates a tire tread manufacturing and tire re-treading facility at 3595 West First Avenue and 68 Wallis Street in Eugene, Oregon. The operation involves mixing and milling rubber, extruding rubber, pressing rubber into treads, grinding rubber, cement coating, and tire retreading. The 3595 West First Avenue facility does the mixing, milling, extruding, and pressing rubber into treads. The 68 Wallis Street facility is shared with Wyatt's Tire Company and does some pressing rubber into treads, along with grinding rubber, cement coating, and tire retreading.

Oregon Tread Rubber Co. uses a baghouse to control particulate from mixing and milling and a baghouse with an electrostatic precipitator to control particulate from tire buffing. Recently the baghouse for mixing and milling was updated due to a fire. The baghouse with electrostatic precipitator was also recently updated to a more effective unit.

The styrene-butadiene rubber (SBR), natural rubber, oil, and additives are compounded in batches and mixed in a Banbury mill, conveyed to a rubber mill, and then into an extruder. The extruded rubber slab is placed into a heated mold and a vulcanized rubber tire tread results. The majority of tire treads coated with adhesive are coiled and wrapped for resale, whereas, other tire manufacturers attached them to their own tire cores.

In the tire retread manufacturing operation tire treads are glued to tire cores that have been buffed and prepared for re-treading/recapping. The finished product is cured in an autoclave to assure bonding of the tread to the core surface. Emissions are released during the following tire retread activities: rubber mixing, rubber extrusion, tire buffing, hand buffing/skiving including adhesive and solvent usage, casing repairs including adhesive and solvent usage, cushion and tread application including adhesive and solvent usage, steam or electric heating of the casings in a curing chamber, and finally, painting of the tires using water-based paint. They are in the process of testing a zero VOC adhesive, but have not switched over yet.

Emission Unit Description

3. The emission units (EUs) regulated by this permit are the following:

EU ID	Emission Unit (EU)	Control Device (ID)
#1A	Rubber Mixing and Milling	Baghouse (#7)
#2B	Rubber Extrusion	NA
#3C	Rubber Tread Presses (12)	NA

EU ID	Emission Unit (EU)	Control Device (ID)
#4D	Tread Grinding (Sides and Back)	Electrostatic Precipitator (ESP) /Bag filter (#8)
#5E	Rubber Cement Glue Applicator	NA
#6F	2.1 MMBtu/hr Natural Gas-fired Boiler	NA
#7G	Tire Buffing and Painting	Electrostatic Precipitator (ESP) /Bag filter (#8)
#8H	Various Tire Retreading Activities (including tire curing emissions along with adhesive and solvent usage)	

It was discovered that the control devices had been incorrectly assigned to emission units on the previous permits. After touring the facility, the error was discovered in the paperwork and corrections were made. Baghouse (#7) is located at the 3595 West First Avenue site, and the Electrostatic Precipitator (ESP) / Bag filter (#8) is located at the 68 Wallis Street facility. The facility reported during the tour that a fire destroyed the ESP/bag filter (#8) and that they had replaced it along with baghouse #7 sometime during the previous permit term. LRAPA provided control device forms to the facility so that the file and permit can reflect the current information. LRAPA also informed the facility that notification and construction approval is required any time a control device is modified or installed.

Reasons for Permit Issuance

- The primary reason for this permit action is to renew the expired permit and to update the permit conditions. The permit is classified in the Simple “low” fee category because the facility emitted less than 10 tons of VOC per year in 2017.

The two locations (3595 W. First Avenue and 68 Wallis Street) are considered a single “source” under the definition in LRAPA Title 12 and are issued a single permit.

New Source Review (NSR) and Prevention of Significant Deterioration (PSD)

- This source is not subject to PSD for the affected criteria pollutants. The PSEL of 39 tons VOC per year is below the 40 ton per year significant emission rate (SER) as established in LRAPA Title 12. The maximum annual emissions (Potential to Emit) of VOC is currently estimated to be 10.5 tons per year – less than the 40 ton/year SER in LRAPA Title 12.

Enforcement Actions

- There have been no enforcement actions against the facility.

Source Tests

- No source testing has been performed at this facility. Safety Data Sheets (SDSs), Certified Product Data Sheet, and material usage are used to determine the facility’s VOC and HAP emissions.

Hazardous Air Pollutants (HAPs)

8. Projected maximum total HAPs are 5.6 tons/year for total HAPs, and 3.6 tons/year maximum single HAP (Carbon Disulfide). Emission calculations are attached to this review report and detailed further in the LRAPA electronic file. As an "area source" of HAPs the facility is not subject to any major source National Standard for Hazardous Air Pollutants (NESHAP). Also, the facility is not subject to any area source NESHAP.

Plant Site Emission Limits (PSELs) Information

9.

Annual Plant Site Emission Limits (PSELs)
 (tons per year)

Source	PM	PM ₁₀	PM _{2.5}	Single Hap	Total HAP	VOC
Facility-wide Tire and Tread Manufacturing	24	14	9	9	24	39

- a. The proposed PSELs for all pollutants are equal to the Generic PSEL in accordance with LRAPA 37-0064(3)(b) and the netting basis is zero in accordance with 42-0040(2).
- b. PSELs for CO, NO_x, SO₂ and GHGs are not included in this permit since emissions of these pollutants are less than the respective de minimis emission rates. PSELs for PM, PM₁₀, and PM_{2.5} are included even though emissions are expected to be de minimis.
- c. The PSEL is a federally enforceable limit on the potential to emit.
- d. Recordkeeping of the parameters listed in Conditions 10 and 11 of the permit will be used to ensure compliance with the PSELs.

Baseline Emission Rate (BER)

10. The BER has been set at zero (0) tons per year for all pollutants except greenhouse gases (GHG) since this source was not in operation during the 1978 baseline year. The BER for GHG is not established because actual emissions were well below the de minimis level during the GHG baseline period (2000 – 2010).

Significant Emission Rate (SER)

11. The PSEL increase over the baseline emissions is less than the SER, as defined in LRAPA Title 12, for PM, PM₁₀, PM_{2.5}, CO, NO_x, VOC, GHG, and SO₂ as shown below. No further air quality analysis is required for these pollutants.

Pollutant	Baseline Emissions (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	Change in PSEL (tons/yr)	Increase From Baseline (tons/yr)	SER (tons/yr)
PM	0	24	24	0	24	25
PM ₁₀	0	14	14	0	14	15

Pollutant	Baseline Emissions (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	Change in PSEL (tons/yr)	Increase From Baseline (tons/yr)	SER (tons/yr)
PM _{2.5}	0	9	9	0	9	10
CO	0	NA	NA	NA	NA	100
NO _x	0	NA	NA	NA	NA	40
VOC	0	39	39	0	39	40
SO _x	0	NA	NA	NA	NA	40
GHG	0	NA	NA	NA	NA	75000

Performance Standards and Limitations

12. The facility is subject to the visible emissions standards in LRAPA 32-010, the particulate grain-loading standard in LRAPA 32-015, the highest and best requirement of LRAPA 32-005. Operation of well-maintained electrostatic precipitator and baghouse filters are required to assure compliance with the particulate grain loading and visible emissions limits. The permittee is also required to conduct inspections and maintenance of the equipment to assure compliance with the highest and best requirement.
13. The facility is subject to the PSEL rules in LRAPA 42-0040, 42-0060 and 42-0080. To assure compliance with the PSEL, detailed records and emission calculations are required to be maintained which demonstrate that the emissions of PM, PM₁₀, PM_{2.5}, VOC and HAPs are below the limits. PSELS for CO, NOX, SOX, and GHG are not included in the permit because they are estimated to be emitted at amounts less than the respective minimis levels.

Monitoring, Recordkeeping and Reporting

14. The facility is required to record all inspections and maintenance of air pollution control equipment including the electrostatic precipitator filter and baghouse filter. The facility is also required to keep records of the amount of rubber used in EU-#1A, #2B, #3C, #4D and the tires produced in EU-#7G and EU-#8H. The facility is required to keep records of the amount and types of VOC- and HAP-containing materials used in adhesives and clean up solvents for EU-#5E and EU-#8H along with the VOC and HAP compositions of each material in EU-#5E and EU-#8H. The permit requires calculations of particulate (PM, PM₁₀, PM_{2.5}), VOC and HAP emissions. The annual report is required to document compliance with the PM, PM₁₀, PM_{2.5}, HAP and VOC limits contained in the permit.
15. In addition, and/or including the above requirements, the facility is required to operate and maintain the emission units and control devices at all times in a manner which minimize air contaminant discharges by such activities as conducting proper electrostatic precipitator filter and baghouse filter inspections and replacements, maintaining closed containers when not in use, proper minimization and clean-up of any spillage.

Public Notice

16. The draft permit was on public notice from January 15, 2019 to February 14, 2019. Written Comments may be submitted during the 30-day comment period. If requested by ten (10) or more individuals or an individual representing a group of more than ten (10) individuals, there will be a public hearing following the comment period.

After the comment period and hearing (if requested), LRAPA will respond to comments received and then take final action to issue or deny the permit within 45 days of the close of the public comment or hearing period.

Cnc/cmw
01/11/2019

Oregon Tread Rubber and Wyatt's Tire Emissions Calculations									
Emission Factors									
EU ID	Emission Unit Description	PM/PM ₁₀ /PM _{2.5}	EF Units	VOC	EF Units	Single HAP	EF Units	Total HAP	EF Units
#1A	Rubber Milling and Mixing ¹	2.00E-05	lb/lb rubber	3.86E-05	lb/lb rubber	3.83E-06	lb/lb rubber	4.87E-05	lb/lb rubber
#2B	Rubber Extrusion	7.77E-09	lb/lb rubber	1.23E-05	lb/lb rubber	2.66E-07	lb/lb rubber	3.52E-05	lb/lb rubber
#3C	Tread Press	--	--	4.04E-04	lb/lb rubber	5.35E-04	lb/lb rubber	7.23E-04	lb/lb rubber
#4D	Grinding (Carcass and Retread) ²	5.45E-04	lb/lb rubber	5.21E-04	lb/lb rubber	2.58E-06	lb/lb rubber	1.27E-04	lb/lb rubber
#5E	Rubber Cement Glue Applicator	--	--	0.95	lb/lb glue	Use SDS	lb/lb glue	Use SDS	lb/lb glue
#6F	Natural Gas Combustion	--	--	--	--	--	--	--	--
#7G	Tire Buffing and Painting ²	5.73E-05	lb/tire						
#8H	Various Tire Retreading Activities (including autoclave along with adhesive and solvent usage)	--	--	0.0894	lb/tire	2.70E-04	lb/tire	2.23E-03	lb/tire
	EU #1D Use only Mixing EF because rubber mixing and milling is performed together with no additional heat added in the milling process.								
	¹ Baghouse controls PM 95%								
	EU #4D Use Carcass EFs because higher (more conservative) than Retread.								
	² Baghouse/ESP controls PM 99.99%								
	EU #5E Use 95% VOC for sprayable adhesive because higher (more conservative) than Retread, however facility required to use SDS and material balance to estimate emissions.								
	EU #6F Negligible emissions so excluded from EF table.								
	EU #8H Use curing VOC factor in lieu of autoclave because curing factor is higher (more conservative) than autoclave.								
	EU #8H Use ratio of the pounds of rubber removed through grinding to the number of tires retreaded in lieu of the 13 lb/tire from the 1987 Goodyear tire study because higher (more conservative) and more representative.								
	Highest single HAP is Carbon Disulfide.								

Oregon Tread Rubber and Wyatt's Tire Emissions Calculations ¹										
Emissions Summary										
EU ID	Emission Unit Description	PM	PM ₁₀	PM _{2.5}	NO _x	CO	VOC	SO ₂	Single HAP ⁴	Total HAPs
#1A	Rubber Milling and Mixing	270	270	270	0	0	522	0	52	658
#2B	Rubber Extrusion	0.10	0.10	0.10	0	0	166	0	4	476
#3C	Tread Press	0	0	0	0	0	5,459	0	7,227	9,771
#4D	Grinding (Carcass and Retread)	1119	1119	1119	0	0	1070	0	3	260
#5E	Rubber Cement Glue Applicator ²	0	0	0	0	0	9,224	0	0	0
#6F	Natural Gas Combustion ³	51.68	51.68	51.68	680	571.20	37.40	4.08	0	0
#7G	Tire Buffing and Painting	3	3	3	0	0	0	0	0	0
#8H	Various Tire Retreading Activities (including autoclave emissions along with adhesive and solvent usage)	0	0	0	0	0	4,495	0	13.6	112.2
	Total (Pounds)	1,444	1,444	1,444	680	571	20,974	4	7,299	11,277
	Total (Tons)	0.7	0.7	0.7	0.3	0.3	10.5	0.002	3.6	5.6
HAP Emissions Summary										
		Carbon Disulfide	4-Methyl-2-Pentanone	Aniline	Total HAPs					
	Total (Pounds)	7,299	450	30	11,277					
	Total (Tons)	3.6	0.22	0.02	5.6					

¹Emissions calculations based on 2017 Projected Maximum Production values multiplied by 3.5466, (in accordance with CAO EI submittal, and EPA definition of PTE), and Worst Case emission factors from AP-42 4.12 Manufacture of Rubber Products for the applicable rubber types used (#2 & #6).

²Emissions calculations based on maximum historical usage rates and SDS.

Rubber Cement VOC 95% (9,558 lb/yr x 95% = 9,080 lbs VOC/yr)

Clean-up Solvent VOC 100% (143 lb/yr x 100% = 143 lbs VOC/yr)

³Previous NG combustion calculations were found to be converting the emissions to tons twice.

⁴Highest single HAP is Carbon Disulfide.