



Louisville Metro Air Pollution Control District  
 701 West Ormsby Avenue, Suite 303  
 Louisville, Kentucky 40203-3137



May 26, 2021

**Title V Construction  
 Statement of Basis**

**Source: American Synthetic Rubber Company    Owner: Michelin North America, Inc.**  
**4500 Camp Ground Road                                  1 Parkway South**  
**Louisville, KY 40216    Greenville, SC 29615**

Application Documents:    See Table I-9  
 Draft Permit:                                  04/24/2021  
 Permitting Engineer:                          Randy Schoenbaechler                                  Permit Number:    C-0011-21-0017-V  
 Plant ID: 0011    SIC: 2822    NAICS: 325212

**Introduction:**

This permit will be issued pursuant to District Regulation 2.03, Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements. Its purpose is to provide methods of determining continued compliance with all applicable requirements.

Installation of the following new equipment:

One (1) Temporary Mobile Natural Gas Boiler 01, rated at approximately 99 MMBtu/hr.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO2), carbon monoxide (CO), particulate matter less than 10 microns (PM10), particulate matter less than 2.5 microns (PM2.5), and sulfur dioxide (SO2). Jefferson County is classified as a nonattainment area for ozone (O3).

**Permit Application Type:**

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Initial issuance | Permit Revision                         | <input type="checkbox"/> Permit renewal |
|  | <input type="checkbox"/> Administrative |   |
|  | <input type="checkbox"/> Minor          |   |
|  | <input type="checkbox"/> Significant    |   |

**Compliance Summary:**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Compliance certification signed | <input type="checkbox"/> Compliance schedule included                 |
| <input type="checkbox"/> Source is out of compliance                | <input checked="" type="checkbox"/> Source is operating in compliance |

**I Source Information**

**1. Project Description:**

ASRC submitted a construction application on 3/23/2021 for installation of a temporary mobile natural gas-fired boiler, rated at approximately 99 MMBtu/hr.

**2. Process Description:**

Through a continuous operation, the source reacts monomers using a solvent as a chain transfer agent, to produce SSBR and PBR crumb rubber. The crumb rubber is then compressed and baled prior to shipping. Liquid polymer is produced in a batch operation. The source is converting from using toluene as an organic solvent to using a mixture of cyclohexane and methylcyclohexane for the production of all PBR/SSBR. The source produces steam for plantwide use with coal-and gas-fired boilers.

**3. Site Determination:**

There are no other facilities that are contiguous or adjacent to this facility.

**4. Emission Unit Summary:**

Emission Unit	Equipment Description
U4	Power House: Two coal fired and two natural gas fired boilers and related equipment. Three new three natural gas fired boilers.

**5. Fugitive Sources:**

The source identified no fugitive sources of emissions.

**6. Permit Revisions:**

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
C-0011-21-0017-V	04/24/2021	05/26/2021	Initial	Initial issuance of construction

**7. Application and Related Documents**

Document Number	Date	Description
189299	2/10/2021	Discussion concerning Rental Boiler

Document Number	Date	Description
189313 189302	2/11/2021	Further Discussion about Rental Boiler
203006	3/23/2021	Extension Request for 40 CFR 63 Subpart DDDDDD
203005	3/23/2021	Application for Temporary Mobile Natural Gas Boiler

**8. Emission Summary**

Pollutant	Construction Permit Potential to Emit (tpy)	Pollutant that triggered Major Source Status (based on PTE)
CO	35.7	Yes
NO <sub>x</sub>	15.8	Yes
SO <sub>2</sub>	0.3	Yes
PM <sub>10</sub>	0.2	Yes
VOC	2.3	Yes
Total HAPs	0.8	Yes
Single HAP > 1 tpy		
HAP toluene	0.8	No

**9. Applicable Requirements**

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> 40 CFR 60 | <input checked="" type="checkbox"/> SIP             | <input checked="" type="checkbox"/> 40 CFR 63 |
| <input type="checkbox"/> 40 CFR 61            | <input checked="" type="checkbox"/> District Origin | <input type="checkbox"/> Other                |

**10. Referenced Federal Regulations:**

- |                         |   |
|-------------------------|---|
| 40 CFR 63 Subpart DDDDD | National Emission Standards for Hazardous Air Pollutants for Industrial for Institutional, Commercial, and Industrial Boilers and Process Heaters |
| 40 CFR 60 Subpart Dc    | Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units   |

**11. Non-Applicable Regulations:**

None

**II Regulatory Analysis**

**1. Acid Rain Requirements:**

This equipment is not subject to the Acid Rain Program.

**2. Stratospheric Ozone Protection Requirements:**

Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. ASRC does not manufacture, sell, or distribute any of the listed chemicals. The source’s use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

**3. Prevention of Accidental Releases 112(r):**

ASRC does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount.

**4. 40 CFR Part 64 Applicability Determination:**

This equipment is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring*.

**5. Basis of Regulation Applicability**

**a. Applicable Regulations**

<b>Regulation</b>	<b>Title</b>	<b>Basis</b>
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements	Establishes requirements for Permits to Construct and Operate
5.00	Standards for Toxic Air Contaminants and Hazardous Air Pollutants	Establishes definitions of terms used in the Strategic Toxic Air Reduction Program.
5.01	General Provisions	Establishes general provisions for process equipment from which a toxic air contaminant is or may be emitted.
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants

<b>Regulation</b>	<b>Title</b>	<b>Basis</b>
5.15	Chemical Accident Prevention Provisions	Establishes requirement for sources that handle the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, <i>Chemical Accident Prevention Provisions</i> , in a quantity in excess of the corresponding specified threshold amount.
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	Establishes the methodology for determining the benchmark ambient concentration of a toxic air contaminant.
5.21	Environmental Acceptability for Toxic Air Contaminants	Establishes the criteria for determining the environmental acceptability of emissions of toxic air contaminants.
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	Establishes the procedures for determining the maximum ambient concentration of a toxic air contaminant.
5.23	Categories of Toxic Air Contaminants	Establishes categories of toxic air contaminants.
6.42	Reasonably Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	Applies to the NO <sub>x</sub> emissions from all NO <sub>x</sub> -emitting facilities located at all major NO <sub>x</sub> -emitting stationary sources.
7.02	Federal New Source Performance Standards Incorporated by Reference	Adoption of Federal New Source Performance Standards
7.06	Standards of Performance for New Indirect Heat Exchangers	Applies to each indirect heat exchanger having input capacity of more than one million BTU per hour commenced after September 1, 1976.
40 CFR 60 Subpart A	General Provisions	General Provisions
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Except as provided in paragraphs (d), (e), (f), and (g) of §60.40c, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

Regulation	Title	Basis
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	Establishes requirements for industrial, commercial, or institutional boiler or process heater that is located at, or is part of, a major source of HAP.

**b. Plantwide**

American Synthetic Rubber Company, LLC is a major source for CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, VOC, 1, 3-Butadiene, hydrogen chloride, styrene, toluene, and combined HAPs. Regulation 2.03, section 6.1 requires sufficient monitoring, record keeping, and reporting to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

The TAC emissions from the combustion of natural gas are considered to be de minimis by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas. (Regulation 5.21, section 2.7)

**c. Emission Unit U4 – Power House**

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
MNGB-01	Mobile Natural Gas Boiler, rated capacity 99 MMBtu/hr	To be installed 6/1/2021	2.04, 2.05, STAR, 7.06, 40 CFR 60 Subpart Dc, 40 CFR 63 Subpart DDDDD <sup>1</sup>	N/A	S-MNGB-01

**i. Standards**

1) **CO**

- (a) Per PSD Regulation 2.05 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the CO

<sup>1</sup> This temporary boiler is part of the construction project of installing new NGboilers B5, B6, B7 and removing existing Boilers #1, #2, #3, and #4. Therefore, these boilers are subject to the PSD/NSR avoidance limits for CO, NO<sub>x</sub>, PM/PM10/PM2.5, SO<sub>2</sub>, and VOC established by Construction Permit C-0011-0028-19-V(R1).

emissions limit of 356 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.

- (b) Per PSD Regulation 2.05 for Boiler MNGB-01, B5, B6, and B7, the CO emissions limit of 216 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.

2) **HAP**

- (a) Regulation 40 CFR Part 63 Subpart DDDDD establishes requirements. The company submitted an extension request to not comply with the MACT for this temporary boiler until December 2023.

3) **NO<sub>x</sub>**

- (a) Per NSR Regulation 2.04 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the NO<sub>x</sub> emissions limit of 411 tons during any consecutive 12 month period will not exceed the significant emission rate of ozone for this project.
- (b) Per PSD Regulation 2.05 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the NO<sub>x</sub> emissions limit of 534 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (c) Per NSR Regulation 2.04 and PSD Regulation 2.05 for Boiler MNGB-01, B5, B6, and B7, the NO<sub>x</sub> emissions limit of 95 tons during any consecutive 12 month period will not exceed the significant emission rate for this project.

4) **Opacity**

- (a) Per Regulation 7.06, section 4.2 for MNGB-01, the limit of opacity is 20%.

5) **PM**

- (a) Per PSD Regulation 2.05 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the PM emissions limit of 79 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (b) Per PSD Regulation 2.05 for Boiler MNGB-01, B5, B6, and B7, the PM emissions limit of 1.3 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (c) Per PSD Regulation 2.05 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the PM<sub>10</sub> emissions limit of 61 tons during any consecutive 12-

month period will not exceed the significant emission rate for this project.

- (d) Per PSD Regulation 2.05 for Boiler MNGB-01, B5, B6, and B7, the PM10 emissions limit of 1.3 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (e) Per PSD Regulation 2.05 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the PM2.5 emissions limit of 54 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (f) Per PSD Regulation 2.05 for Boiler MNGB-01, B5, B6, and B7, the PM2.5 emissions limit of 1.1 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (g) The PM emissions limit from MNGB-01 of 0.10 lb/MM Btu actual heat input is from Regulation 7.06, section 4.1.2.

6) **SO<sub>2</sub>**

- (a) Per PSD Regulation 2.05 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the SO<sub>2</sub> emissions limit of 164 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (b) Per PSD Regulation 2.05 for Boiler MNGB-01, B5, B6, and B7, the SO<sub>2</sub> emissions limit of 1.5 tons during any consecutive 12-month period will not exceed the significant emission rate for this project.
- (c) For MNGB-01 the 0.8 lbs/MM BTU actual heat input based on a 30-day rolling average limit is from Regulation 7.06, section 5.1.2.

7) **TAC**

- (a) See the Plantwide section.

8) **VOC**

- (a) Per NSR Regulation 2.04 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the VOC emissions limit of 42 tons during any consecutive 12 month period will not exceed the significant emission rate of ozone for this project.
- (b) Per NSR Regulation 2.04 for MNGB-01, Boiler #1, Boiler #2, Boiler #3, Boiler #4, B5, B6, and B7, the VOC emissions limit of 14 tons during any consecutive 12 month period will not exceed the significant emission rate of ozone for this project.



- ii. **Monitoring and Record Keeping**
  - 1) **HAP**
    - (a) Regulation 40 CFR Part 63 Subpart DDDDD establishes monitoring and record keeping requirements.
  - 2) **NOx**
    - (a) Regulation 40 CFR Part 60 Subpart Dc establishes monitoring and record keeping requirements.
- iii. **Reporting**
  - 1) **HAP**
    - (a) Regulation 40 CFR Part 63 Subpart DDDDD establishes reporting monitoring and record keeping requirements.
  - 2) **NOx**
    - (a) Regulation 40 CFR Part 60 Subpart Dc establishes reporting monitoring and record keeping requirements.

**III Other Requirements**

**1. Temporary Sources:**

This mobile natural gas boiler is considered to be temporary.

**2. Short Term Activities:**

The source did not report any short term activities.

**3. Emissions Trading:**

The source is not subject to emission trading.

**4. Alternative Operating Scenarios:**

The source did not request any alternative operating scenarios.

**5. Compliance History since Last Operating Permit Issuance:**

Date	Regulation Violated	Settlement
10/01/1992	7.02	Board Order
12/20/1993	7.02	Board Order
7/6/1996	7.02	Settled
5/8/1998	1.09	Settled
3/3/1999	1.09	Settled
7/26/2003	5.02	Settled
4/11/2007, 4/3/2007	2.03, 2.16	Board Order
1/15/2009	5.15	Settled

Date	Regulation Violated	Settlement
1/6/2009, 3/25/2009, 9/29/2009	2.16, 1.09, 1.13	Board Order
5/27/2010	2.16	Board Order
3/27/2013	2.16	Settled
1/29/2010, 9/3/2010, 7/15/2011, 1/21/2013, 3/4/2013, 1/8/2014, 3/22/2014	2.16, 1.07	Board Order
1/29/2015	2.16	Settled
11/13/2015	1.05	Settled
4/15/2015, 9/29/2017, 5/25/2018	5.01, 5.15, 5.21	Board Order

**6. Calculation Methodology or Other Approved Method:**

Emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc) or hours of operation of the equipment by the appropriate emission factor and 1 minus any control device’s efficiency. The following emission factors and calculation methodology shall be used unless other methods or emission factors are approved in writing by the District.

**Unit U4: Power House**

Equipment	Emission Pt.	Pollutant	Emission Factor	EF Units	Determination Method
Mobile Natural Gas Boiler 01	E-U4 MNGB-01	NOx	37.1	lb/mmcf	Vendor w/ LNB & FGR
		CO	84	lb/mmcf	AP-42, 1.4-1
		PM	0.52	lb/mmcf	2011 NEI, EPA
		PM10	0.52	lb/mmcf	2011 NEI, EPA
		PM2.5	0.43	lb/mmcf	2011 NEI, EPA
		PM/PM10/PM2.5 condensable	0.32	lb/mmcf	2011 NEI, EPA
		PM10 filterable	0.20	lb/mmcf	2011 NEI, EPA
		PM2.5 filterable	0.11	lb/mmcf	2011 NEI, EPA
		SO2	0.6	lb/mmcf	AP-42, 1.4-2
		VOC	5.5	lb/mmcf	AP-42, 1.4-2
		Ammonia (NH3)	0.49	lb/mmcf	2011 NEI, EPA
		2-Methylnaphthalene	2.40E-05	lb/mmcf	AP-42, 1.4-3
		3-Methylchloranthrene	1.80E-06	lb/mmcf	AP-42, 1.4-3
		DMBA	1.60E-05	lb/mmcf	AP-42, 1.4-3
		Acenaphthene	1.80E-06	lb/mmcf	AP-42, 1.4-3
		Acenaphthylene	1.80E-06	lb/mmcf	AP-42, 1.4-3
		Anthracene	2.40E-06	lb/mmcf	AP-42, 1.4-3
		Benz(a)anthracene	1.80E-06	lb/mmcf	AP-42, 1.4-3
		Benzene	2.10E-03	lb/mmcf	AP-42, 1.4-3
		Benzo(a)pyrene	1.20E-06	lb/mmcf	AP-42, 1.4-3
Benzo(b)fluoranthene	1.80E-06	lb/mmcf	AP-42, 1.4-3		
Benzo(g,h,i)perylene	1.20E-06	lb/mmcf	AP-42, 1.4-3		
Benzo(k)fluoranthene	1.80E-06	lb/mmcf	AP-42, 1.4-3		
Chrysene	1.80E-06	lb/mmcf	AP-42, 1.4-3		

Equipment	Emission Pt.	Pollutant	Emission Factor	EF Units	Determination Method
		Dibenzo(a,h)anthracene	1.20E-06	lb/mmcf	AP-42, 1.4-3
		Dichlorobenzene	1.20E-03	lb/mmcf	AP-42, 1.4-3
		Fluoranthene	3.00E-06	lb/mmcf	AP-42, 1.4-3
		Fluorene	2.80E-06	lb/mmcf	AP-42, 1.4-3
		Formaldehyde	7.50E-02	lb/mmcf	AP-42, 1.4-3
		Hexane	1.80E+00	lb/mmcf	AP-42, 1.4-3
		Indeno(1,2,3-cd)pyrene	1.80E-06	lb/mmcf	AP-42, 1.4-3
		Naphthalene	6.10E-04	lb/mmcf	AP-42, 1.4-3
		Phenanthrene	1.70E-05	lb/mmcf	AP-42, 1.4-3
		Pyrene	5.00E-06	lb/mmcf	AP-42, 1.4-3
		Toluene	3.40E-03	lb/mmcf	AP-42, 1.4-3
		Arsenic	2.00E-04	lb/mmcf	AP-42, 1.4-4
		Beryllium	1.20E-05	lb/mmcf	AP-42, 1.4-4
		Cadmium	1.10E-03	lb/mmcf	AP-42, 1.4-4
		Chromium	1.40E-03	lb/mmcf	AP-42, 1.4-4
		Cobalt	8.40E-05	lb/mmcf	AP-42, 1.4-4
		Lead	5.00E-04	lb/mmcf	AP-42, 1.4-2
		Manganese	3.80E-04	lb/mmcf	AP-42, 1.4-4
		Mercury	2.60E-04	lb/mmcf	AP-42, 1.4-4
		Nickel	2.10E-03	lb/mmcf	AP-42, 1.4-4
		Selenium	2.40E-05	lb/mmcf	AP-42, 1.4-4
		CO2 (GWP1)	116.9	lb/mmBtu	40CFR98, T-C1
		Methane (CH4) (GWP25)	0.00221	lb/mmBtu	40CFR98, T-C2
		N2O (GWP 310)	0.000221	lb/mmBtu	40CFR98, T-C2

## 7. Insignificant Activities

NA