

## **Louisville Metro Air Pollution Control Board Board Order – Amendment 1**

This amended Board Order is issued by the Louisville Metro Air Pollution Control Board pursuant to the authority granted in Kentucky Revised Statutes Chapter 77 Air Pollution Control.

**Owner:** Michelin North America, Inc.  
**Source:** American Synthetic Rubber Company  
4500 Camp Ground Road  
Louisville, KY 40216

### **Background and Discussion**

Regulation 6.42 *Reasonably Available Control Technology Requirements for Major Volatile Organic Compound- and Nitrogen Oxides-Emitting Facilities* requires the establishment and implementation of reasonably available control technology (RACT) for certain affected facilities that emit volatile organic compounds (VOC) located at a major stationary source for VOC and oxides of nitrogen (NO<sub>x</sub>) located at a major stationary source for NO<sub>x</sub>. Section 4.4 requires that each determination of RACT approved by the Air Pollution Control District of Jefferson County (District) be submitted to the U.S. Environmental Protection Agency (EPA) as a site-specific revision of the Kentucky State Implementation Plan (SIP).

The initial Board Order was approved by the Board on December 20, 2000, and subsequently submitted to the EPA by the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC) as a site-specific revision of the Kentucky SIP. The Board Order and NO<sub>x</sub> RACT Plan was approved by the EPA on October 23, 2001.

In the RACT plan approved on December 20, 2000, the company agreed that the oxides of nitrogen (NO<sub>x</sub>, expressed as NO<sub>2</sub>) emissions from Boiler #1 and Boiler #2 shall not exceed 0.50 pound per million Btu of heat input, based upon a 30-day rolling average applicable at all times, including periods of startup, shutdown, or malfunction. The company further agreed that the NO<sub>x</sub> (expressed as NO<sub>2</sub>) emission from each of Boiler #3 and Boiler #4 shall not exceed 0.20 pound per million Btu of heat input, and that neither of these two boilers shall combust a fuel other than natural gas except that Boiler #4 may also combust No. 2 fuel oil.

On August 1, 2019, the Company submitted a proposed RACT plan pursuant to Regulation 6.42 §§4.2.1 & 4.3.1 for three new Boilers planned to eventually replace existing Boilers #1, 2, 3, and 4. In that proposal and supplements submitted on September 5 & 9 the Company proposed the implementation of good combustion and operating practices as VOC RACT as well as a 30-day rolling average NO<sub>x</sub> emission limit for the three new Boilers referred to as B5, B6, and B7 as NO<sub>x</sub> RACT. The District is amending the Board Order to include these limits in accordance with the requirements of Section 110(l) of the Clean Air Act.

**Now therefore be it ordered that:**

1. The attached NO<sub>x</sub> RACT Plan - Amendment 1, applicable to American Synthetic Rubber Company, is approved by the District. American Synthetic Rubber Company shall comply with this plan.
2. Compliance with the attached RACT Plan, Amendment 1, shall be deemed compliance with the requirements of Regulation 6.42, to the extent that they apply.
3. Upon written notification to the District after each boiler has undergone decommissioning for any of Boiler #1, Boiler #2, Boiler #3, or Boiler #4 the conditions of Section A of the NO<sub>x</sub> RACT plan dealing with that boiler shall no longer be applicable.
4. This amended Board Order shall not be deemed or construed to be the result of any violation of any federal, state, or local statute, regulation, or ordinance for any purpose whatsoever.
5. The ASRC has reviewed this amended Board Order and consents to all its requirements and terms.
6. This amended Board Order is effective on the date of its adoption by the Board.

Dated this 20th day of November, 2019

Louisville Metro Air Pollution  
Control Board

By: Carl E. Hilton  
Carl Hilton  
Chairman

American Synthetic Rubber Company

By: Trevor Rohl  
Trevor Rohl  
Health, Safety, and Environmental  
Manager

Louisville Metro Air Pollution  
Control District

By: Matt King  
Matt King  
Air Pollution Control Officer

Approved as to form and legality:

By: Stacy Fritze Dott  
Stacy Fritze Dott  
Assistant County Attorney

## VOC/NO<sub>x</sub> RACT Plan

### Section A (Boiler #1, #2, #3, and #4 RACT Plan)

1. The oxides of nitrogen (NO<sub>x</sub>, expressed as NO<sub>2</sub>) emission from Boiler #1 and Boiler #2 shall not exceed 0.50 pound per million Btu of heat input, based upon a 30-day rolling average. This limit applies at all times, including periods of startup, shutdown, or malfunction.
2. The ASRC shall calibrate, maintain, and operate a continuous emissions monitoring system (CEMS), and record the output of the system, for measuring NO<sub>x</sub> emissions from Boiler #1 and Boiler #2. The following requirements apply to the CEMS:
  - A. The CEMS shall be operated and data recorded during all periods of operation of a boiler except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks and zero and span adjustments,
  - B. The 1-hour average NO<sub>x</sub> emission rates measured by the CEMS shall be expressed in pounds per million Btu heat input and shall be used to calculate the average emission rates under NO<sub>x</sub> RACT Plan Element No. 1,
  - C. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(b). At least 2 data points shall be used to calculate each 1-hour average,
  - D. The procedures under 40 CFR 60.13 shall be followed for evaluation and operation of the CEMS,
  - E. The span value for NO<sub>x</sub> is 500, and
  - F. When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7, Method 7a, or other reference methods approved by the District to provide emission data for a minimum of 75 % of the operating hours in the boiler operating day, in at least 22 out of 30 successive Boiler operating days.
3. The ASRC shall maintain the records listed in 40 CFR 60.49b(g) for Boiler #1 and Boiler #2 with the following clarifications:
  - A. The NO<sub>x</sub> emission rates shall be expressed in pounds per million Btu heat input measured, and
  - B. The applicable NO<sub>x</sub> emission limit is contained in Element No. 1.

Each record shall be maintained for a minimum of 5 years and made available to the District upon request.

4. The NO<sub>x</sub> (expressed as NO<sub>2</sub>) emission from each of Boiler #3 and Boiler #4 shall not exceed 0.20 pound per million Btu of heat input. Neither boiler shall combust a fuel other than natural gas.
5. The ASRC shall conduct an annual performance test for NO<sub>x</sub> for each of Boiler #3 and Boiler #4. Regulation 6.42, *Reasonably Available Control Technology Requirements for Major Volatile Organic Compound- and Nitrogen Oxides-Emitting Facilities*, section 5.1

states "For sources that opt for performance testing, a performance test shall be required annually for the first 2 years. If the facility is found to be in compliance during both of these tests, then the performance tests shall be conducted every two years after the second test, unless the facility fails to demonstrate compliance with its VOC or NO<sub>x</sub> emission standard. In this case, the facility shall return to the annual performance test schedule for that pollutant until the District determines that compliance has been shown for a duration adequate to demonstrate that emission are not likely to exceed the standards in the future." Performance testing shall meet the following requirements:

- A. Emissions concentrations and mass determinations shall be obtained using Reference Methods of 40 CFR Part 60 Appendix A. The following methods shall be used:
    - (1) Method 1 or 1A, which furnishes guidance in site and traverse selection for sampling velocity at traverse points in stationary sources,
    - (2) Method 2, 2A, 2B, 2C, 2D, 2E, 2F, 2G, or 2H, which applies to measurements of gas volumetric flow rates,
    - (3) Method 3, 3A, 3B, or 3C, which is applicable for determining the concentrations of one or more of the following gases: carbon dioxide, oxygen, carbon monoxide, nitrogen, and methane,
    - (4) Method 4, which determines the moisture content in stack gases, if necessary for calculations due to differences caused by measuring the pollutant and either oxygen or carbon dioxide on a wet or dry basis,
    - (5) Method 7, 7A, 7B, 7C, 7D, or 7E, which provides the analytical method for determining the concentration of NO<sub>x</sub> emissions from stationary sources, and
    - (6) Method 19, which is used in calculating the mass of pollutant per heat input.
  - B. The use of other Reference Methods that are added to 40 CFR Part 60 Appendix A, alternative tests, or modifications to the Reference Methods listed in NO<sub>x</sub> RACT Plan Element (Element No. 5.A.) may be proposed by the ASRC as part of the testing plan required by Element No. 5.D. Such methods may be used if approved in writing by the Louisville Metro Air Pollution Control District (District).
  - C. Performance testing shall be conducted pursuant to the requirements of Regulation 1.04, Performance Tests. All testing shall be conducted at 90% or greater of the maximum rated heat input capacity of the boiler.
6. The ASRC shall keep a record identifying all deviations from the requirements of this NO<sub>x</sub> RACT Plan and shall submit to the District a written report of all deviations that occurred during the preceding semi-annual period. Semi-annual periods shall run from January 1 to June 30 and July 1 to December 31. The report shall contain the following information:
- A. The boiler number,
  - B. The beginning and ending date of the reporting period,
  - C. Identification of all periods during which a deviation occurred,

- D. A description, including the magnitude, of the deviation,
- E. If known, the cause of the deviation, and
- F. A description of all corrective actions taken to abate the deviation.

If no deviation occurred during the semi-annual period, the report shall contain a negative declaration. Each report shall be submitted within 60 days following the end of the semi-annual period. Alternatively, a written report of all deviations that occurred during the preceding calendar quarter, or negative declaration, may be made, in which case the quarterly report shall be submitted within 30 days following the end of the calendar quarter.

- 7. In lieu of the requirements in this NO<sub>x</sub> RACT Plan, the ASRC may comply with alternative requirements regarding emission limitations, equipment operation, test methods, monitoring, record keeping, or reporting, provided the following conditions are met:
  - A. The alternative requirements are established and incorporated into an operating permit pursuant to a Title V Operating Permit issuance, renewal, or significant permit revision process as established in Regulation 2.16,
  - B. The alternative requirements are consistent with the streamlining procedures and guidelines set forth in section II.A. of White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. The overall effect of compliance with alternative requirements shall consider the effect on an intrinsic basis, such as pounds per million Btu. However, alternative requirements that are developed based upon revisions to the applicable requirements contained in 40 CFR Part 60 shall be approvable pursuant to this Element,
  - C. The U.S. Environmental Protection Agency (EPA) has not objected to the issuance, renewal, or revision of the Title V Operating Permit, and either
  - D. If the public comment period preceded the EPA review period, then the District had transmitted any public comments concerning the alternative requirements to EPA with the proposed permit, or
  - E. If the EPA and public comment periods ran concurrently, then the District had transmitted any public comments concerning the alternative requirements to the EPA no later than 5 working days after the end of the public comment period.

The District's determination of approval of any alternative requirements is not binding on the EPA. Noncompliance with any alternative requirement established pursuant to the Title V Operating Permit process constitutes a violation of the NO<sub>x</sub> RACT Plan.

## Section B (Boiler B5, B6, and B7 RACT Plan)

1. The VOC emissions from each Boiler B5, B6, and B7 shall be limited by implementation of good combustion and operating practices including the following requirements:

A. Design considerations:

- (1) Selection of efficient burners;
- (2) Implementation of combustion controls to optimize efficiency; and
- (3) Use of insulation media to minimize heat losses.

B. Comply with the tune-up requirements of 40 CFR 63.7540(a)(10) on an annual basis including the following annual preventative maintenance steps:

- (1) Operation of burner systems per manufacturer's recommendations;
- (2) Inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown);
- (3) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- (4) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
- (5) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject;
- (6) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
- (7) Maintain on-site and submit, if requested by the Administrator, a report containing the following information:
  - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
  - b. A description of any corrective actions taken as a part of the tune-up; and
  - c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

2. The NO<sub>x</sub> (expressed as NO<sub>2</sub>) emissions from each Boiler B5, B6, and B7 shall not exceed 0.04 lb/MMBtu based on a 30-day rolling average period.
3. The ASRC shall conduct an annual performance test for NO<sub>x</sub> for Boilers B5, B6, and B7 in accordance with Regulation 6.42, *Reasonably Available Control Technology Requirements for Major Volatile Organic Compound- and Nitrogen Oxides-Emitting Facilities*, section 5.1, which states "For sources that opt for performance testing, a performance test shall be required annually for the first 2 years. If the facility is found to be in compliance during both of these tests, then the performance tests shall be conducted every two years after the second test, unless the facility fails to demonstrate compliance with its VOC or NO<sub>x</sub> emission standard. In this case, the facility shall return to the annual performance test schedule for that pollutant until the District determines that compliance has been shown for a duration adequate to demonstrate that emission are not likely to exceed the standards in the future." Performance testing shall meet the following requirements:
  - A. Emissions concentrations and mass determinations shall be obtained using Reference Methods of 40 CFR Part 60 Appendix A. The following methods shall be used:
    - (1) Method 1 or 1A, which furnishes guidance in site and traverse selection for sampling velocity at traverse points in stationary sources,
    - (2) Method 2, 2A, 2B, 2C, 2D, 2E, 2F, 2G, or 2H, which applies to measurements of gas volumetric flow rates,
    - (3) Method 3, 3A, 3B, or 3C, which is applicable for determining the concentrations of one or more of the following gases: carbon dioxide, oxygen, carbon monoxide, nitrogen, and methane,
    - (4) Method 4, which determines the moisture content in stack gases, and
    - (5) Method 7, 7A, 7B, 7C, 7D, or 7E, which provides the analytical method for determining the concentration of NO<sub>x</sub> emissions from stationary sources, and
    - (6) Method 19, which is used in calculating the mass of pollutant per heat input.
4. The use of other Reference Methods that are added to 40 CFR 60 Appendix A, alternative tests, or modifications to the Reference Methods listed in NO<sub>x</sub> RACT Plan Element (Element) No. 3.A. may be proposed by the ASRC as part of the testing plan required by Element No. 5. Such methods may be used if approved in writing by the Louisville Metro Air Pollution Control District (District).
5. Performance testing shall be conducted pursuant to the requirements of Regulation 1.04, Performance Tests. All testing shall be conducted at 90% or greater of the maximum rated heat input capacity of the boiler.
6. The ASRC shall perform and make a record of the following non-routine boiler maintenance activities for Boilers B5, B6, and B7. These maintenance activities shall be completed annually within 13 months of the previous maintenance cycle.

- A. Inspect the fuel combustion system and, as needed, clean or replace the components of the fuel combustion system.
  - B. Inspect the flame pattern for the boiler and make any needed adjustments to the fuel combustion system to optimize the flame pattern to minimize emissions of CO while ensuring compliance with the NO<sub>x</sub> emission limit,
  - C. Inspect the combustion control system to determine whether the combustion control system is operating properly, and the air-to-fuel ratio is correctly calibrated and make any needed system adjustments or replacements,
  - D. Adjust the air-to-fuel ratio to minimize excess air and maximize boiler efficiency, and
  - E. Inspect all other components of the boiler and make any needed adjustments or repairs to improve boiler efficiency.
7. The ASRC shall include in each report pursuant to Element No. 8 a summary of the non-routine boiler maintenance activities required by Element No. 6 that occurred during the preceding semi-annual period.
8. The ASRC shall keep a record identifying all deviations from the requirements of this VOC and NO<sub>x</sub> RACT Plan and shall submit to the District a written report of all deviations that occurred during the preceding semi-annual period. Semi-annual periods shall run from January 1 to June 30 and July 1 to December 31. The report shall contain the following information:
- A. The boiler number,
  - B. The beginning and ending date of the reporting period,
  - C. Identification of all periods during which a deviation occurred,
  - D. A description, including the magnitude, of the deviation,
  - E. If known, the cause of the deviation, and
  - F. A description of all corrective actions taken to abate the deviation.

If no deviation occurred during the semi-annual period, the report shall contain a negative declaration. Each report shall be submitted within 60 days following the end of the semi-annual period.

9. In lieu of the requirements in this VOC/NO<sub>x</sub> RACT Plan, the ASRC may comply with alternative requirements regarding emission limitations, equipment operation, test methods, monitoring, recordkeeping, or reporting, provided the following conditions are met:
- A. The alternative requirements are established and incorporated into an operating permit pursuant to a Title V Operating Permit issuance, renewal, or significant permit revision process as established in Regulation 2.16,
  - B. The alternative requirements are consistent with the streamlining procedures and guidelines set forth in section II.A. of White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards.



The overall effect of compliance with alternative requirements shall consider the effect on an intrinsic basis, such as pounds per million Btu of heat input. However, alternative requirements that are developed based upon revisions to the applicable requirements contained in 40 CFR Part 60 or Part 75 shall be approvable pursuant to this NO<sub>x</sub> RACT Plan Element,

- C. The U.S. Environmental Protection Agency (EPA) has not objected to the issuance, renewal, or revision of the Title V Operating Permit, and either
- D. If the public comment period preceded the EPA review period, then the District transmitted any public comments concerning the alternative requirements to EPA with the proposed permit, or
- E. If the EPA and public comment periods ran concurrently, then the District transmitted any public comments concerning the alternative requirements to EPA no later than 5 working days after the end of the public comment period.

The District's determination of approval of any alternative requirements is not binding on EPA. Noncompliance with any alternative requirement established pursuant to the Title V Operating Permit process constitutes a violation of this NO<sub>x</sub> RACT Plan.

History: Approved 12-20-00; effective 1-1-01; amended a1/11-20-19.

