

**COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office**

STATEMENT OF LEGAL AND FACTUAL BASIS

The Goodyear Tire and Rubber Company
1901 Goodyear Boulevard - Danville, Virginia
Permit No. BRRO-30106

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9VAC5 Chapter 80, The Goodyear Tire and Rubber Company has applied for a Title V Operating Permit for its Danville facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:

Thomas H. Berkeley, PE
(434) 582-6205

Date: _____

Air Permit Manager:

David J. Brown

Date: _____

Regional Director:

Robert J. Weld

Date: _____

FACILITY INFORMATION

Permittee

The Goodyear Tire and Rubber Company
1901 Goodyear Boulevard
Danville, VA

Facility

The Goodyear Tire and Rubber Company
1901 Goodyear Boulevard
Danville, VA 24541

County-Plant Identification Number: 51-590-00013

SOURCE DESCRIPTION

NAICS Code: 326211 – Manufacturing of rubber tires for trucks and aircraft.

The Goodyear Tire and Rubber Company (GY) is a manufacturer of truck and aircraft tires. The tire manufacturing process begins with mixing of raw materials (including synthetic and natural rubber, carbon black, sulfur, accelerators, and process oils). Mixed rubber is then extruded (formed into predetermined shapes such as tread, or sidewall) or calendered (applied to a substrate to form specific gauge rubber sheets). Individual tire components are transferred to tire building stations where they are assembled into tires. Depending on the tackiness of the rubber prior to assembly and the type of tire being constructed, solvent may be applied at the tire building stations. Assembled ("green") tires are then cured within steam-heated curing presses. Depending on the tire, balance pads may be applied to the inside of the tire.

Based on Goodyear's permit renewal application dated 4/18/12, as amended 3/12/15 the facility is a Title V major source of SO₂, VOC, NO_x, PM, PM₁₀, PM_{2.5}, CO, and individual and total HAPs. This source is located in an attainment area for all pollutants, and is a PSD major source. The facility is currently regulated in five NSR permits.

- The principle permit is dated 12/3/14 and included both a new PSD approval for the two phased installation of (3) Banbury mixers to allow for the production of Low Rolling Resistance (LRR) truck tires, and conforming amendments to the PSD permit issued on 9/4/02 covering a large portion of the plant (i.e., Mixing, Curing, and Finishing equipment, and including Plantwide limits);
- A permit dated 5/28/81 for a 47.5 MMBtu/hr Keeler Boiler;
- A permit dated 6/15/04 for a truck tire reclaim grinder (RG-1);
- a permit dated 2/6/08 for the construction and operation of a new quad-feed cold extruder; and

- a permit dated 6/12/08 for the modification of the curing area (i.e., increase the number of press cavities). Included in the same permit application, a separate project (i.e., replacing the mixing chamber on Banbury 5) was described. That mixer project was deemed exempt from permitting.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units, pollution control devices, and stacks are those units as described in the table in the current Title V permit (titled "Emission Units" (SEU)). Except as noted here the descriptions in the current SEU table are the same as those in the previous (2007) Title V permit.

Exceptions:

- Two columns related to "Associated Equipment" are added to make the components of each Banbury mixer more clear
- Calendering and extruding equipment is listed together since that is how the relevant applicable requirements are grouped
- DDM2 was in the previous SEU table but was never installed and is therefore removed.¹
- The three emission units related to the Quad Extruder (EU054, EU054a & EU054b)² are added.
- The emission unit description for the curing presses is updated. (See also discussions items 4b & 4c in the "Additional and/or expanded discussions" section below.)
- Green Tire Spray unit #4 (GTS#4) is added. (See also discussion item 5 in the "Additional and/or expanded discussions" section below.)
- Three emergency engines are added. (See the "background" section of Emergency Engine Requirements section below.)

¹ DDM2 did not appear anywhere else in the previous Title V permit

² As initially submitted, the update to the Title V renewal application represented the Quad Extruder as a single unit. Upon review that application was clarified (see 4/29/15 email Bamford to Berkeley) to more actually address the Quad Extruder LINE as permitted on 2/6/08 (i.e., the LINE includes the extruder itself as well as: (a) an End Cementing Station and (b) an Ink Marking Station)

EMISSIONS INVENTORY

Emissions are summarized in the following tables.

2013 Actual Emissions

	Criteria Pollutant Emission in Tons/Year				
	SO2	VOC	NOx	PM10	CO
Total	5.25	390.3	160.3	41.9	48.9

2013 Facility Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emission in Tons/Yr
Carbon Disulfide	5.5
Ethylbenzene	1.0
Methylene Chloride	4.0
Hexane	2.8
o-Xylene	1.1
Lead	0.00

EMISSION UNIT APPLICABLE REQUIREMENTS

Overview

From the Table of Contents for the Title V permit, it may be seen that, generally, the order and structure of the permit has historically been based on the sequential material flow through the plant as a tire is produced (e.g., material is received, mixed, “shaped/ assembled”³ and cured to produce finished tires). Related site wide operations (e.g., power production, and solvent usage) and miscellaneous/support procedures are also included.

As with the previous Title V permit document, the applicable requirements from the permit for the Keeler boiler are located in “Fuel Burning Equipment Requirements” section, and those from the permit for the Collmann Run-out tire grinder are located in “Supporting Equipment Requirements” section.

This current Title V renewal also includes the addition of the set of applicable requirements from each of the underlying NSR permit actions that were completed since the signature date of the previous Title V permit for the facility (i.e., 11/27/07). Specifically:

- The new set of applicable requirements that result from the 2/6/08 NSR permit for the Quad-Extruder Line (EU54) are located in “Rubber Extruding/Calendering Equipment Requirements” section.
- As discussed in the engineering analysis for the 6/12/08 NSR permit, that permit determination addressed two independent projects in a single permit document⁴; the first

³ Shaping includes extruding and calendaring, and assembly includes tire building.

⁴ Excerpt from the engineering analysis for the 6/12/08 permit: “In the permit application, Goodyear states that the mixing area change is a separate and independent project from the changes to the curing area, and that these two

was to increase the number of press cavities, and the second project was to replace the mixing chamber on Banbury 5. The new set of applicable requirements that result from the 2/6/08 NSR permit for the press cavities are located in “Curing and Finishing” section of the current Title V permit. No new applicable requirements resulted from the permit exemption for the change to Banbury 5.

- The set of applicable requirements that result from the two phased, LRR project, as permitted 12/3/14 are located in “Mixing Equipment Requirements” section of the current Title V permit. The 2014 permit document also included conforming amendments to the PSD permit issued on 9/4/02. Conforming applicable requirements (with updated citation of the condition number as amended in 2014) are also included in both the “Curing and Finishing” section and the “Facility Wide Conditions” section.

Fuel Burning Equipment Requirements

The fuel burning equipment covered by this section is: three B & W boilers (EU035, EU036 & EU037) and the Keeler boiler (EU038).

Fuel Burning Background

The Keeler boiler was initially permitted in 1981 and that permit document was “corrected” in both 1989 and 2000 (1989 added used oil as approved fuel; 2000 corrected a typo in used oil specifications). Neither the 1989 nor the 2000 action was considered or labeled as superseding the 1981 document. On 5/15/15 a Mutual Shutdown Agreement (MSA) was finalized to “...mutually determine that the Keeler boiler for the purposes of used oil combustion is shut down permanently,” and it was explicitly noted in that MSA “...that following the execution of this agreement the Keeler boiler will retain natural gas and fuel oil as approved fuels.” The SEU table and the set of applicable requirements for the Keeler boiler are updated to address allowable operation after the MSA.⁵

Fuel Burning Limitations

The applicable limitations for the three B & W boilers have not changed since the previous Title V permit and include: definition of approved fuels, existing source short term emission limits for PM and SO₂, and the existing source opacity standard for the boiler stacks except when the Keeler boiler is firing.

Except for the elimination of used oil as an approved fuel, the applicable limitations for the Keeler boiler have not changed since the previous Title V permit. The remaining requirements include: the opacity standard for the boiler stacks when the Keeler boiler is firing, definition of approved fuels (including sulfur content), and short term and annual emission limits for PM/PM₁₀, SO₂, NO_x, VOC, and CO.

“projects” are included in the single permit application for their convenience of submittal”

⁵ i.e., all references to used oil are removed

Fuel Burning Maintenance/Operating Procedures

The applicable O&M procedures for the four boilers have not changed since the previous Title V permit and include: proper O&M, operator training specifications, and development of a maintenance schedule (including recordkeeping).

Fuel Burning Monitoring

For sufficiency of monitoring purposes, the frequency of opacity monitoring for the boiler stacks has been reduced to daily observations (including an observation log). However, since visible emissions are not generally expected when firing natural gas, and in response to recent comments received on a Title V permit for a unit who's approved fuels, like the boilers at Danville, are natural gas and fuel oil, the opacity monitoring is limited to times when fuel oil is being fired.

The provisional requirement to stack test PM emissions from B & W boilers once every 5 years on a rotating basis has not changed since the previous Title 5 permit.

Fuel Burning Recordkeeping

The only changes to the recordkeeping requirements for the four boilers since the previous Title V permit are related to (1) the change in frequency of opacity observations and (2) the elimination of used oil as an approved fuel.

Fuel Burning Reporting

The only changes to the reporting requirements for the four boilers since the previous Title V permit are related to the elimination of used oil as an approved fuel.

The O&M procedures and the monitoring, recordkeeping and reporting requirements are considered sufficient to assure compliance with the emission limitations for the fuel burning equipment.

Receiving Equipment Requirements

Receiving Limitations

The applicable limitations for the carbon black transfer system have not changed since the previous Title V permit and include: enclosures and bin vents, existing source short term emission limits for PM, and the existing source opacity standard.

Receiving Maintenance/Operating Procedures

The applicable O&M procedures for the receiving equipment have not changed since the previous Title V permit and include: development of a maintenance schedule (including recordkeeping).

RE: EPA comments dated 8/5/15 of Proposed Title V Significant Modification, BRRO-30397 (Griffin Pipe). Natural gas monitoring position included in verbal discussions associated with 8/5/15 document.

Receiving Monitoring

In response to recent comments received on a Title V permit⁷ for sufficiency of monitoring purposes, a provision to increase the frequency of opacity monitoring for the carbon black transfer system to daily observations for a limited time after any weekly observation that detects visible emission has been added (including an observation log).

Receiving Recordkeeping

The only change to the recordkeeping requirements for the carbon black transfer system since the previous Title V permit is the change in frequency of opacity observations.

The O&M procedures and the monitoring and recordkeeping requirements are considered sufficient to assure compliance with the emission limitations for the receiving equipment.

MIXING EQUIPMENT REQUIREMENTS

Mixing Background

As described in the engineering analysis for the 12/3/14 permit, the two PSD permit approvals⁷ that underlay the current set of Title V applicable requirements for the site's rubber mixing equipment were each developed in two phases as required to implement GY's requested LRR project installation schedule.

Before the 2014 permit approval, the site was permitted to construct and operate nine Banbury units (BM1 thru BM9), as well as other tire manufacturing equipment, by the 2002 PSD permit. In Phase 1, a newly installed Banbury mixer (BM110) is allowed, and upon startup of that new mixer, one of the mixers previously allowed by the 2002 permit, BM3, must be shutdown. In Phase 2, two more newly installed Banbury mixers (BM111 and BM112) are allowed, and upon startup of the first of these two new mixers one additional previously allowed mixer (BM2) must be shutdown.

The implementation of Phase 2 is anticipated but not guaranteed. Therefore, the 2014 NSR permit document was developed using the following structure:

- Section I = Phase 1 of Low Rolling Resistance Project applicable requirements
- Section II = Phase 2 of Low Rolling Resistance Project applicable requirements
- Section III = Significant Amendment of 9/4/2002 permit applicable requirements with two versions of each amended condition (e.g., Condition 40.A and 40.B; Version "A" applies during Phase 1 of the LRR project and version "B" applies during Phase 2)
- Section IV = General Conditions.

To weave the timing aspects of the 2014 NSR applicable requirements into the current Title V period an Alternate Operating Scenario (AOS) approach has been used. That is:

⁷ Approval dated 2002 as amended 2014, and the new project approval

- Alternative Operating Scenario 0 = the applicable requirements before Alternative 1 is triggered by the initial startup of BM110
- Alternative Operating Scenario 1 = the applicable requirements from NSR Section I and Section III.A are specified, and
- Alternative Operating Scenario 2 = the applicable requirements from NSR Section II and Section III.B are specified

Condition 1 of the current draft Title V permit specifies both the timing for each of the three AOSs and the range of condition numbers that apply to each.

General

The current Title V permit includes a general condition that spells out when each of the alternative scenarios applies as a function of new mixer installation dates.

Mixing Limitations – Alternative 0

The applicable limitations for Banbury mixers (BM 1 thru 9) include: particulate control by fabric filters, cyclones, and scrubbers; throughput limits; opacity standards; and emission limits for PM, VOC and ethanol.

Mixing Maintenance/Operating Procedures

The applicable O&M procedures for Banbury mixers (BM 1 thru 9) include: proper O&M, operator training specifications, and development of a maintenance schedule (including recordkeeping).

Mixing Monitoring – Alternative 0

The applicable monitoring for Banbury mixers (BM 1 thru 9) includes: continuous differential pressure (dP) measurement; weekly opacity monitoring for specified emission points⁸; stack testing of PM emissions once every 5 years on a rotating basis; and CAM for two cyclones

Mixing Recordkeeping – Alternative 0

The applicable monitoring for Banbury mixers (BM 1 thru 9) includes: opacity observation logs; throughput records; manufacturing specification sheets for each rubber compound produced with coupling agent(s); maintenance records; calculation records of short and long term VOC and ethanol emissions; stack test records; and CAM records.

Mixing Testing – Alternative 0

Test ports must be installed upon request.

Mixing Reporting – Alternative 0

Reports of excursions, exceedances and monitor downtime required for CAM.

⁸ In response to recent comments on a Title V permit (see Footnote ⁶) for sufficiency of monitoring purposes, a provision to increase the frequency of opacity monitoring for the specific points to daily observations for a limited time after any weekly observation that detects visible emission has been added (including an observation log).

The O&M procedures, monitoring devices (including their recordkeeping requirements), periodic opacity observations and stack tests, CAM provisions for applicable equipment and the extensive recordkeeping requirements are considered sufficient to assure compliance with the emission limitations for the mixing equipment operating under Alternative 0.

Mixing Limitations – Alternative 1

The Alternative 1 limitations include:

BANBURY MIXER 110 related limitations

- C41⁹ - permanent shutdown of BM3
- C42 - control of VOC emissions from BM110 by RTO when batches of rubber containing either High Temperature Coupling Agent (HTCA) or Low Temperature Coupling Agent (LTCA) materials are being mixed
- C43 - the minimum control efficiency for the RTO
- C44 - control of particulate matter emissions from BM110 by fabric filter
- C45 - the annual rubber throughput limit for BM110
- C46 - the approved fuel for the RTO
- C47 - short term emission limit for PM for BM110
- C48 - short term and annual emission limits for PM/PM10 from BM110 in series with the RTO
- C49 - annual emission limits for both VOC (including ethanol) and for ethanol from the RTO
- C50 - annual plantwide ethanol emission limit (excluding those from the RTO) as a result of mixing HTCA, LTCA, and/or SD^{10 & 37} in BM110
- C51 - opacity limit for the RTO

Balance of the fleet (i.e., BM1, 2 & 4 thru 9)

- C52 - control of particulate matter emissions from BM1, 2 & 4 thru 9 by fabric filter
- C53 - control of particulate matter emissions from BM2 shaker cooler by cyclone
- C54 - control of particulate matter emissions from the conveyors for BM7, 8 & 9 controlled by scrubber (daily differential pressure (dP) recordkeeping added)¹²
- C55 - the annual pelletized rubber throughput limit for BM2
- C56 - prohibition to increasing the total exhaust air volume for fabric filters for BM1, 2 & 4 thru 9
- C57 - short term PM emission limit for fabric filters for BM1, 2 & 4 thru 9 (each)
- C58 - opacity limits for specified points
- C59 - annual emission limit for VOC (including ethanol) from BM1, 2 & 4 thru 9
- C60 - annual emission limits for ethanol from BM1, 2 & 4 thru 9 (each)
- C61 - annual plantwide ethanol emissions as a result of mixing HTCA, LTCA, and/or SD in BM1, 2 & 4 thru 9
- C62 - approved coupling agents for BM1, 2 & 4 thru 9
- C63 - short term emission limit for PM for BM2 shaker cooler

⁹ Because the “structure” for the set of applicable requirements for the mixing area is complex, the current Title V condition numbers are specifically identified for the convenience of the reader

¹⁰ See also discussion item 2 in the “Additional and/or expanded discussions” section below.

Mixing Maintenance/Operating Procedures – Alternative 1

C64 - The applicable O&M procedures for BM1, 2 & 4 thru 9, and BM110 include: development of a maintenance schedule, spare parts requirements, written operating procedure requirements, and operator training requirements, and recordkeeping for these monitoring requirements.

Mixing Monitoring – Alternative 1

The Alternative 1 monitoring includes:

BANBURY MIXER 110 related monitoring

- C65 - RTO temperature measurement and recording device required
- C66 - BM110 fabric filter dP measurement device and recordkeeping required
- C70 - VOC from BM110 is subject to CAM¹¹ (Specific CAM applicable requirements are in C72a thru j, C75 (recordkeeping), and C78 (reporting))

Balance of the fleet monitoring (i.e., BM1, 2 & 4 thru 9)

- C67 - BM1, 2, 4 thru 9 fabric filters dP measurement devices and recordkeeping required¹²
- C68 - Weekly opacity observations for the “Other Emissions Points” (i.e., EP-002, EP-003, EP-003R, EP-006, EP-009, and EP-013)¹³
- C69 - Stack test BM1, 2, 4 thru 9 fabric filters as specified¹⁴
- C71 - PM from BM2 shaker cooler cyclone is subject to CAM¹⁵ (Specific CAM applicable requirements are in C72a thru j, C75 (recordkeeping), and C78 (reporting))

Mixing Recordkeeping – Alternative 1

The Alternative 1 recordkeeping includes:

BANBURY MIXER 110 related records

- C73a - annual rubber throughput for BM110
- C73b - annual consumption of each HTCA, LTCA and SD in BM110
- C73c - annual throughput of each type of rubber compound (including “recipe”) for BM110
- C73d - CA and SD “MSDS” data
- C73e - annual ethanol emissions from BM110 (as measured at the RTO exit) and the annual plantwide ethanol emissions that result from the operation of BM110 (excluding those measured at the RTO)
- C73f - annual PM10 and PM2.5 emissions from BM110 in series with the RTO
- C73g - annual VOC emissions from BM110 (as measured at the RTO exit)

¹¹ The RTO is identified as PSEU 1 for the purposes of CAM applicable requirements.

¹² See also discussion item 3 in the “Additional and/or expanded discussions” section below.

¹³ In response to recent comments on a Title V permit (see Footnote 6) for sufficiency of monitoring purposes, a provision to increase the frequency of opacity monitoring for the specific points to daily observations for a limited time after any weekly observation that detects visible emission has been added (including an observation log).

¹⁴ The provisional requirement to stack test PM emissions from BM1, 2, 4 thru 9 fabric filters once every 5 years on a rotating basis has not changed since the previous Title V permit.

¹⁵ The Cyclone (CL01) is identified as PSEU 2 for the purposes of CAM applicable requirements.

C73h - RTO operation and monitoring records
C73i - BM110 fabric filter operation and monitoring records
C73j - All test and evaluation results
C73k - documentation of Alternative 1 construction progress

Balance of the fleet (i.e., BM1, 2 & 4 thru 9)

C74a - specified opacity observation records
C74b - annual rubber throughput for BM1, 2 & 4 thru 9
C74c - annual pelletized rubber manufactured in BM2
C74d - annual consumption of each HTCA, LTCA and SD in BM1, 2 & 4 thru 9
C74e - annual throughput of each type of rubber compound (including "recipe") for BM 1, 2 & 4 thru 9
C74f - CA and SD "MSDS" data
C74g - maintenance and construction records for BM1, 2 & 4 thru 9 fabric filters
C74h - annual VOC emissions the BM1, 2 & 4 thru 9¹⁶
C74i - annual ethanol emissions each BM1, 2 & 4 thru 9 and the annual plantwide ethanol emissions that result from the operation of BM1, 2 & 4 thru 9
C74j - specified maintenance and training records
C74k - specified stack test report records

Mixing Testing – Alternative 1

The Alternative 1 testing includes:

BANBURY MIXER 110 related testing

C76 - RTO stack testing after BM110 start up

Balance of the fleet (i.e., BM1, 2 & 4 thru 9)

C77 - test ports must be installed upon request

Mixing Reporting – Alternative 1

The Alternative 1 reporting includes:

C79 - specified initial notifications

C80 - contemporaneous PM2.5 increase reporting¹⁷

The O&M procedures, monitoring devices (including their recordkeeping requirements), periodic opacity observations and stack tests, CAM provisions for applicable equipment and the extensive recordkeeping requirements are considered sufficient to assure compliance with the emission limitations for the mixing equipment operating under Alternative 1.

¹⁶ It is noted that the underlying NSR condition also includes reference a historic "curing area capacity" limit. As shown in discussion item 4 in the "Additional and/or expanded discussions" section below, that limit was applied redundantly in several permits and was therefore streamlined out here in the mixing section but is included in the curing section of the current Title V permit.

¹⁷ See also discussion item 1 in the "Additional and/or expanded discussions" section below.

Mixing Limitations – Alternative 2

The Alternative 2 limitations include:

BANBURY MIXERS 110, 111 and 112 related limitations

- C81 - permanent shutdown of BM2
- C82 - Alternative 1 BACT determination reviewed
- C83 - control of VOC emissions from BM110, BM111, and BM112 by RTO when batches of rubber containing either High Temperature Coupling Agent (HTCA) or Low Temperature Coupling Agent (LTCA) materials are being mixed
- C84 - the minimum control efficiency for the RTO
- C85 - control of particulate matter emissions from BM110, BM111, and BM112 by fabric filter
- C86 - the annual rubber throughput limit for BM110, BM111, and BM112 (each)
- C87 - the approved fuel for the RTO
- C88 - short term emission limit for PM for BM110, BM111, and BM112 (each)
- C89 - short term and annual emission limits for PM/PM10 from BM110, BM111, and BM112 in series with the RTO (each)
- C90 - annual emission limits for BM110, BM111, and BM112 (each) for both VOC (including ethanol) and for ethanol from the RTO
- C91 - annual plantwide ethanol emission limits (excluding those from the RTO) as a result of mixing HTCA, LTCA, and/or SD ¹⁸ & ³⁷ in BM110, BM111, and BM112 (each)
- C92 - opacity limit for the RTO

Balance of the fleet (i.e., BM1 & 4 thru 9)

- C93 - control of particulate matter emissions from BM1 & 4 thru 9 by fabric filter
- C94 - control of particulate matter emissions from the conveyors for BM7, 8 & 9 controlled by scrubber (daily dP recordkeeping added) ¹²
- C95 - the annual pelletized rubber throughput limit for the entire facility
- C96 - prohibition to increasing the total exhaust air volume for fabric filters for BM1 & 4 thru 9
- C97 - short term PM emission limit for fabric filters for BM1 & 4 thru 9 (each)
- C98 - opacity limits for specified points
- C99 - annual emission limit for VOC (including ethanol) from BM1 & 4 thru 9
- C100 - annual emission limits for ethanol from BM1 & 4 thru 9 (each)
- C101 - annual plantwide ethanol emissions as a result of mixing HTCA, LTCA, and/or SD in BM1 & 4 thru 9
- C102 - approved coupling agents for BM1 & 4 thru 9

Mixing Maintenance/Operating Procedures – Alternative 2

- C103 - The applicable O&M procedures for BM1 & 4 thru 9, BM110, BM111, and BM112 include: development of a maintenance schedule, spare parts requirements, written operating procedure requirements, and operator training requirements,

¹⁸ See also discussion item 2 in the “Additional and/or expanded discussions” section below.

and recordkeeping for these monitoring requirements.

Mixing Monitoring – Alternative 2

The Alternative 2 monitoring includes:

BANBURY MIXERS 110, 111 and 112 related monitoring

C104 - RTO temperature measurement and recording device required

C105 - fabric filters for BM110, BM111 and BM112 (each) dP measurement devices and recordkeeping required

C109 - VOC from BM110, BM111, and BM112 is subject to CAM¹⁹ (Specific CAM applicable requirements are in C110a thru j, C113 (recordkeeping), and C116 (reporting))

Balance of the fleet monitoring (i.e., BM1 & 4 thru 9)

C106 - fabric filters for BM1 & 4 thru 9 (each) dP measurement devices and recordkeeping required²⁰

C107 - Weekly opacity observations for the “Other Emissions Points” (i.e., EP-002, EP-006, EP-009, and EP-013)²¹

C108 - Stack test BM1 & 4 thru 9 fabric filters as specified²²

Mixing Recordkeeping – Alternative 2

The Alternative 2 recordkeeping includes:

BANBURY MIXERS 110, 111, and 112 related records

C111a - annual rubber throughput for BM110, BM111, and BM112 (each)

C111b - annual consumption of each HTCA, LTCA and SD in BM110 BM111, and BM112 (each)

C111c - annual throughput of each type of rubber compound (including “recipe”) for BM110 BM111, and BM112 (each)

C111d - CA and SD “MSDS” data

C111e - annual ethanol emissions from BM110, BM111, and BM112 (each) (as measured at the RTO exit) and the annual plantwide ethanol emissions that result from the operation of BM110, BM111, and BM112 (each) (excluding those measured at the RTO)

C111f - annual PM10 and PM2.5 emissions from BM110, BM111, and BM112 (each) in series with the RTO

C111g - annual VOC emissions from BM110, BM111, and BM112 (each) (as measured at the RTO exit)

C111h - RTO operation and monitoring records

C111i - BM110, BM111, and BM112 fabric filter operation and monitoring records

¹⁹ The RTO is identified as PSEU 1 for the purposes of CAM applicable requirements.

²⁰ See also discussion item 3 in the “Additional and/or expanded discussions” section below.

²¹ In response to recent comments on a Title V permit (see Footnote 5) for sufficiency of monitoring purposes, a provision to increase the frequency of opacity monitoring for the specific points to daily observations for a limited time after any weekly observation that detects visible emission has been added (including an observation log).

²² The provisional requirement to stack test PM emissions from BM1, 2, 4 thru 9 fabric filters once every 5 years on a rotating basis has not changed since the previous Title V permit.

- C111j - All test and evaluation results
- C111k – documentation of Alternative 2 construction progress

Balance of the fleet (i.e., BM1 & 4 thru 9)

- C112a - specified opacity observation records
- C112b - annual rubber throughput for BM1 & 4 thru 9
- C112c - annual pelletized rubber manufactured at the facility
- C112d - annual consumption of each HTCA, LTCA and SD in BM1 & 4 thru 9
- C112e - annual throughput of each type of rubber compound (including “recipe”) for BM 1 & 4 thru 9
- C112f - CA and SD “MSDS” data
- C112g - maintenance and construction records for BM1 & 4 thru 9 fabric filters
- C112h - annual VOC emissions the BM1 & 4 thru 9²³
- C112i - annual ethanol emissions each BM1, 2 & 4 thru 9 and the annual plantwide ethanol emissions that result from the operation of BM1 & 4 thru 9
- C112j - specified maintenance and training records
- C112k - specified stack test report records

Mixing Testing – Alternative 2

The Alternative 2 testing includes:

BANBURY MIXERS 110, 111, and 112 related testing

- C114 - RTO stack testing for both BM111 and BM112 after start up²⁴

Balance of the fleet (i.e., BM1 & 4 thru 9)

- C115 - test ports must be installed upon request

Mixing Reporting – Alternative 2

The Alternative 2 reporting includes:

- C117 - specified initial notifications
- C118 - contemporaneous PM2.5 increase reporting²⁵

The O&M procedures, monitoring devices (including their recordkeeping requirements), periodic opacity observations and stack tests, CAM provisions for applicable equipment and the extensive recordkeeping requirements are considered sufficient to assure compliance with the emission limitations for the mixing equipment operating under Alternative 2.

²³ It is noted that the underlying NSR condition also includes reference a historic “curing area capacity” limit. As shown in discussion item 4 in the “Additional and/or expanded discussions” section below, that limit was applied redundantly in several permits and was therefore streamlined out here in the mixing section but is included in the curing section of the current Title V permit.

²⁴ This condition is written so that either one or two tests may be required depending on the timing of the startup of each of the two mixers

²⁵ See also discussion item 1 in the “Additional and/or expanded discussions” section below.

Rubber Extruding/Calendering Equipment Requirements

Rubber Extruding/Calendering Background

As mentioned above in the Overview to this document, the Quad-Extruder (QE) Line (EU54) received an NSR permit on 2/6/08 (i.e., after the date of the previous Title V permit). The applicable requirements from that NSR permit make up all but one of the conditions in this extruding/calendering equipment requirements section.

Rubber Extruding/Calendering Limitations

The unit specific applicable limitations for the QE unit from the NSR include: a rubber throughput limit, an annual emission limit for VOC, and incorporation by reference NSPS Subpart BBB as a possible future requirement.²⁶

Rubber Extruding/Calendering Recordkeeping

The single non-QE specific applicable requirement in this extruding/calendering equipment section is the recordkeeping condition from the previous Title V permit that requires that "...all emission data and operating parameters necessary to calculate emissions from the calendering and extruding equipment must be maintained."²⁷ The current version of this condition makes it clear that the referenced equipment of this condition does not include the QE unit.

The unit specific applicable recordkeeping requirements for the QE unit from the NSR include records of: annual rubber throughput, and the monthly and annual VOC calculations for each of the three components of the QE line (i.e., for the extruder itself, the end-cementing stations and the ink marking station) the rubber throughput and identification of each Rubber Manufacturers Association (RMA) emission factor used in that calculation, and for both the end-cementing station and the ink marking station, a material balance)

Rubber Extruding/Calendering Testing

The unit specific applicable testing requirement is for the QE line to provide test port installation upon request.

Rubber Extruding/Calendering Reporting

The unit specific applicable reporting requirement for the QE unit is notification to BRRO of the date on which the QE line becomes subject to NSPS BBB.

For the fleet other than the QE line, the quantity of rubber extruded records may be used as required to quantify emissions. For the QE line, the recordkeeping requirements for rubber throughputs and of material balance calculations are considered sufficient to assure

²⁶Excerpt from the engineering analysis for the NSR permit: "Initially, the QE line will not be producing tires in the subject size range. However, Goodyear has requested that the permit include a future alternate operating scenario (i.e., manufacturing tires in a diameter small enough to be subject to BBB). Since QE line is not currently subject to BBB, the current draft incorporates by reference BBB. Application of the BBB applicable requirements will be triggered on the startup date of manufacture of tires with physical characteristics subject to BBB." The current Title V permit includes a notification requirement for this triggering event.

²⁷ These records include, but are not limited to, the quantity of rubber extruded and calendered

compliance with the VOC emission limitation.

The 2/6/08 permit requires records sufficient to demonstrate whether that the QE project did, or did not, result in a PSD major modification as defined in 9VAC5-80-1615 (See also discussion item **1** in the “Additional and/or expanded discussions” below.)

Curing and Finishing Equipment Requirements

Curing and Finishing Limitations

Except for the three added conditions discussed below which address the installation of a new green tire spray booth, the limitations for the curing and finishing area have not changed essentially since the previous Title V permit. These include: the curing area throughput capacity definition²⁸, an opacity limit each for curing area stack, and the VOC control requirement for tire balance pad units from the 2002 PSD permit as carried forward as part of the 2014 significant amendment to that permit.

Since the date of the previous Title V permit an additional green tire spray unit (GTS#4) has been installed at Danville.²⁹ The applicable limitations for GTS#4 are from NSPS BBB and include: incorporation of that NSPS by reference, definition of approved sprays, and spray-specific VOC emissions limits.

Curing and Finishing Monitoring

In response to recent comments received on a Title V permit³ for sufficiency of monitoring purposes, a provision to increase the frequency of opacity monitoring for the curing area stacks to daily observations for a limited time after any weekly observation that detects visible emission has been added (and includes logging of observations).

Curing and Finishing Recordkeeping³⁰

In addition to the VOC as ethanol that is limited and tracked via the mixing area provisions of the Title V permit discussed above, the curing area recordkeeping provisions from the previous Title V permit are carried forward and include: opacity observation logs, the alternative-specific annual throughput of cured rubber for the remaining 2002 mixers, and the annual throughput of cured rubber for the entire curing area (to protect both the “VOC” and the “rubber throughput” statements of curing area capacity limit).

The applicable recordkeeping for GTS#4 is from NSPS BBB and is to maintain VOC content data records for each spray used.

²⁸ See also discussion item **4** in the “Additional and/or expanded discussions” section below.

²⁹ See also discussion item **5** in the “Additional and/or expanded discussions” section below.

³⁰ It is important to recall that there are two distinct aspects to the permitting strategy for the curing area: first, the throughput capacity has been limited to 86 tpy of NON-ETHANOL VOC since 2002, and second, that the ETHANOL FROM CURING is “captured/addressed” in the mixing recordkeeping section above (e.g., current Title V Conditions 32, 43, 55e, 56i, 73, 83, 93e, and 94i) – This is how the 2002 PSD permit was crafted and in order to coordinate the sets of ARs from those two PSD actions, the 2014 permit used the same permitting strategy. (See also discussion item **2** in the “Additional and/or expanded discussions” section below)

Curing and Finishing Testing

The applicable testing for GTS#4 is from NSPS BBB and is to assess VOC content for each spray used on a specified schedule.

Curing and Finishing Reporting

The 6/12/08 permit requires records sufficient to demonstrate whether that project did, or did not, result in a PSD major modification as defined in 9VAC5-80-1615 (See also discussion item **1** in the “Additional and/or expanded discussions” below.)

The applicable reporting for GTS#4 is from NSPS BBB and is to submit the VOC content for each spray used on a specified schedule.

Therefore, because of the “remainder-of-ethanol-to-curing” approach discussed in discussion item **2** in the “Additional and /or expanded discussions” section below, the records required for the three new mixers (BM 110, 111, & 112) in the mixing section are sufficient to calculate the emissions for both mixing and curing. For the remaining mixers by phase (e.g., Alternative 1 = BM 1, 2 & 4 thru 9), the “2002” recordkeeping conditions are applied to the fleet as truncated and are still considered sufficient to assure compliance with the VOC and ethanol limitations

NSPS required recordkeeping, testing and reporting provisions considered sufficient to assure compliance with the VOC emission limitations for GTS#4

Facility Wide Conditions

Facility Wide Limitations – Alternative 0

The applicable limitations for coupling agents include: annual emission limits and approved formulations.

Facility Wide Recordkeeping – Alternative 0

The applicable recordkeeping for coupling agents includes: annual consumption, and records of emissions calculations (including input data).

The extensive recordkeeping requirements are considered sufficient to assure compliance with the emission limitations for the ethanol from coupling agent use under Alternative 0.

Facility Wide Limitations (solvent usage) – Alternatives 1 and 2

The solvent usage applicable requirements originated in the 2002 PSD for the facility and they were not added to as they were carried forward as part of the 2014 significant amendment to that permit.

Facility Wide Limitations (solvent usage) – Alternatives 1 and 2

The applicable specific limitation for plant wide solvent usage is a pounds-per-ton-of-cured-rubber value. The current Title V permit also includes the general duty VOC work practice

standards for minimizing emissions.³¹

Facility Wide Monitoring and Recordkeeping – Alternatives 1 and 2

The applicable requirements as carried forward in 2014 include: record availability for both the specified MSDS data and for the required emission calculations.

The recordkeeping requirements are considered sufficient to assure compliance with the emission limitation for the Facility wide solvent usage.

Condition 146: The current Title V permit includes four conditions Labeled “Condition for Granting (*a designated*) permit”. The requirement to keep these associated records is centralized in this Facility Wide section (C146) of the current Title V permit. (See also discussion item 1 the “Additional and/or expanded discussions” section below.)

TIRE MACT Conditions

The GY, Danville facility has been an existing source subject to the Rubber Tire Manufacturing MACT (i.e., Subpart XXXX) since before the date on the previous Title V permit (11/27/07) and the relevant Subpart XXXX applicable requirements were included in that previous permit. A current review of Subpart XXXX shows that none of the sections of the rule applicable to the Danville facility have been changed.³² Therefore, the statement of site-specific Subpart XXXX applicable requirements is not changed with this current renewal.³³

Supporting Equipment Requirements

Supporting Equipment Limitations

The applicable limitations for the Collmann Run-out grinder have not changed since the previous Title V permit and include: control of PM emissions by rotoclone (including the installation and operation of a dP measuring device), opacity standards, and short term and annual emission limits for PM/PM10.

Supporting Equipment Maintenance/Operating Procedures

The applicable O&M procedures for the Collmann Run-out grinder have not changed since the previous Title V permit and include: development of a maintenance schedule, spare parts requirements, written operating procedure requirements, and operator training requirements, and recordkeeping for these monitoring requirements.

Supporting Equipment Monitoring

For sufficiency of monitoring purposes the weekly opacity monitoring requirements in the

³¹ e.g., VOC not stored in open containers. The topic of the general duty VOC work practice standards was also addressed in the 2/6/08 NSR permit for the QE. That 2008 permit document uses a more recent statement of the condition and therefore was used in the current Title V permit document. The 2008 statement is considered to streamline out the 2014 statement.

³² There have been no changes to the set of Subpart XXXX applicable requirements since 4/20/06.

³³ MACT XXXX applicable requirements are for *Tire Production* and GY-Danville complies using the subpart's Purchase Alternative Option. C152 adds the option of reporting in accordance with 63.6010(f) (i.e., annual versus semiannual reporting for facilities using the purchase alternative option).

previous Title V permit have been replaced by the requirement for the daily observation and recording of measured differential pressure across the control device.¹²

Supporting Equipment Recordkeeping

Except for the monitoring change described above, the applicable recordkeeping requirements for the Collmann Run-out grinder have not changed since the previous Title V permit and include: records of daily differential pressure, emissions calculations by approved methods, and maintenance and training records.

Supporting Equipment Testing

The applicable testing requirements for the Collmann Run-out grinder have not changed since the previous Title V permit and includes test port installation upon request.

The O&M procedures, and the monitoring and recordkeeping requirements are considered sufficient to assure compliance with the emission limitations for the supporting equipment.

Emergency Engines Requirements

Emergency Engines Background

The previous Title V permit included a single, 280 hp emergency engine (EU061) and it was listed as an insignificant unit. The current Title V permit application refers to this engine as the "Ball Field" Fire Pump engine; a 240 hp diesel engine (2006 model year unit).

The current Title V permit application also lists another, 290 hp diesel emergency engine (EU062) referred to as the "Pump House" Fire Pump engine. The Pump House engine is a 2008 model year unit with a cylinder displacement of 8.1L and was installed in 2008.

A third engine (EU066) is currently planned for installation in 2015. Referred to as the "Emergency Lighting" unit, EU066 is a 755 hp diesel engine (2014 model year with a cylinder displacement of 14.9L).

All three emergency engines are subject to the Engine MACT Subpart ZZZZ. Therefore each engine is a significant emissions unit with applicable requirements. For both the Pump House engine and the emergency lighting engine, the MACT requirement is to comply with the provisions of NSPS IIII (CI RICE).

EU061, EU062, and EU066 (each)

Emergency Engine Opacity Monitoring

The applicable opacity monitoring for each emergency engine (EU061, EU062, and EU066) is the requirement to make an observation in any month that the engine operates and respond as needed.

EU061

Ball Field Fire Pump engine Limitations

The applicable limitations for EU061 include: definition of the approved fuel, the new

source opacity standard; and from the engine MACT - work practice standards during normal operations and during startup, specified O&M, and specified MACT general requirements.

Ball Field Fire Pump engine Monitoring

The applicable monitoring for EU061 from the engine MACT is a non-resettable hour meter.

Ball Field Fire Pump engine Recordkeeping

The applicable records for EU061 are from the engine MACT and are for O&M.

Ball Field Fire Pump engine Reporting

The applicable reporting for EU061 is from the engine MACT. The permittee must report each instance when a required work practiced standard or general requirement was not met.

The opacity monitoring and MACT-specific monitoring, recordkeeping and reporting requirements are considered sufficient to assure compliance with the limitations for EU061.

EU062

Pump House Fire Pump engine Limitations

The applicable limits for EU062 include: definition of the approved fuel and the new source opacity standard

Pump House Fire Pump engine NSPS Requirements

The applicable NSPS requirements for EU062 are:

- emission standards for NMHC+NO_x, CO & PM; these standards apply for the life of the engine
- fuel type requirements
- compliance requirements: engine certification / follow manufacturer's specifications / amount of annual operation
- specified NSPS general requirements.

The opacity monitoring and NSPS-specific fuel type and compliance requirements are considered sufficient to assure compliance with the limitations for EU062.

EU066

QE Emergency Lighting engine Limitations

The applicable limits for EU066 include: definition of the approved fuel and the new source opacity standard

QE Emergency Lighting engine NSPS Requirements

The applicable NSPS requirements for EU066 are:

- emission standards for NMHC+NO_x, CO & PM; these standards apply for the life of the engine
- fuel type requirements
- compliance requirements: engine certification / follow manufacturer's specifications / amount of annual operation
- specified NSPS general requirements
- monitoring of operation by non-resettable hour meter
- recordkeeping of emergency and non-emergency operation

The opacity monitoring and NSPS-specific fuel type, compliance, monitoring and recordkeeping requirements are considered sufficient to assure compliance with the limitations for EU066.

Additional and/or expanded discussions

In this section miscellaneous topics as identified are discussed.

1. Conditions for Granting Permits:

The current Title V permit includes the following four conditions Labeled "Condition for Granting (a designated) permit".

- a. Title V Conditions 80 and 118: Netting calculations were required in order for the LRR project (2014) to avoid PSD review for PM_{2.5}.³⁴ The current Title V permit includes a condition that requires that, until the end of the contemporaneous period, the permittee must submit a revised netting calculation anytime there is an increase in PM_{2.5} at the site. Condition 62 is the statement of this requirement for Phase 1 of the project, and Condition 100 is the parallel statement in Phase 2.
- b. Title V Condition 125: The Quad-Extruder line project (2/6/08 permit) avoided being subject to PSD review, in part, by using the excludable emissions provisions of Projected Actual Emissions calculations. Typical practice for this situation is for the resulting (Article 6) permit to include the "rebuttable presumption" that should

³⁴ Excerpt from 2014 engineering analysis: "PM_{2.5} emissions after Step 1 of Phase 2 would be subject to review... However, when the contemporaneous changes in Step 2 of Phase 2 are considered, PM_{2.5} nets out of PSD review. A consequence of this outcome is that since the contemporaneous period is defined in part as ending when the last emissions unit approved as part of a project begins to emit, conceivably, future increases in PM_{2.5} emissions at the Goodyear-Danville facility could change the outcome of the netting demonstration. Therefore, the draft permit includes a condition that requires that, until the end of the contemporaneous period, the permittee must submit a revised netting calculation anytime there is an increase in PM_{2.5} at the site."

subsequent emissions at the facility result in a (PSD) “significant emission increase” such increase would be considered to result from that project until and unless the permittee demonstrates otherwise and that the permittee keep records for such demonstration for a regulatorily defined period of time based on when the unit resumes regular operation after the project.

- c. Title V Condition 138: Similarly, the curing area project (6/12/08 permit) avoided being subject to PSD review, in part, by using the excludable emissions and must keep the specified records. Since the regulatorily defined period of time is based unit-specific resumption of “regular operation after the project”, both this Condition (i.e., 138), and Condition 125 described above are required.

2. “Follow the Rubber”:

Overview:

VOC (principally as ethanol) is emitted at two different tire manufacturing process steps: first from mixing, and then any remainder from curing. Following the lead of the 2002 PSD permit for the facility, the 2014 PSD permit for the LRR project tracks these emissions by “following the rubber” [i.e., making use of extensive, but already in-place, business data tracking records]

Specifics:

- a. Fundamental to the permit strategy of the 2014 PSD permit action is an understanding that the mixing of rubber is a very precise art (i.e., different rubber “recipes” are used to produce each of the various rubber tire components that are assembled into a finished tire). Therefore, since each different type tire component typically must have very specific mechanical properties (e.g., the rubber used to form sidewalls may require a rubber with a balance of flexibility and strength while the rubber used to form threads balances traction, stiffness, and wear) developing and utilizing the “right rubber” for a given tire component is a critical business process and is the subject of extensive business related recordkeeping.
- b. VOC from rubber compound mixing may be characterized by two components; (1) traditional VOC (i.e., carbon compounds as defined in 9VAC5-10-20) and (2) VOC as ethanol.

Traditional VOC: The emissions of traditional VOC are relative small (e.g., uncontrolled emissions $\approx 6 \text{ ton}_{\text{VOC}} / \text{yr}$ per new mixer at Danville) and these emissions are calculated based on Rubber Manufacturer Association (RMA) emission factors³⁵ and rubber throughputs.

VOC as ethanol: Since approximately 2000, the tire manufacturing industry has

³⁵ These RMA factors are the basis of the AP-42, Chapter 4.12 emission factors and are based on industry test data for the 6 rubber compound types used to produce the various components of a tire (e.g., treads, sidewalls, belts, etc)

acknowledged that while neither of the two rubber compound raw materials silica nor coupling agent (CA) contain VOC by themselves, a chemical reaction between the moisture on the surface of the silica and the ethoxy groups in the CA can result in formation and liberation of a relatively large amount of ethanol (e.g., uncontrolled emissions \approx 700 ton VOC / yr per new mixer at Danville). This reaction is temperature dependent, and, based on chemical balance, a grand total of 4 mols of ethanol are available for emission. Goodyear testing indicates the temperature dependence may be characterized in 3 temperature bands as follows:

- At temperatures greater than 300^oF³⁶, 3 of the 4 the theoretical maximum mols are formed (i.e., 75%);
- Between 250^oF and 300^oF, 1 of the 4 mols is formed: and
- Below 250^oF, ethanol is not expected to form³⁷

HTCA is formulated to be used in recipes that specify mix temperatures greater than 300^oF; LTCA is formulated to be used in recipes that specify mix temperatures between 250^oF and 300^oF; and SD is LTCA used in recipes that specify mix temperatures less than 250^oF. Independent of mixing temperature, of the total of 4 mols formed, ***ethanol not formed at mixing is expected to be formed and emitted at curing*** where bulk temperatures in tire curing presses routinely exceed 300^oF.

Therefore, by tracking the amount of each type of rubber compound produced on a given mixer, including the recipe and mix temperature, it is possible to calculate the VOC emissions, both traditional and ethanol, from both the mixing area and from the curing area.

The permit required records include: the annual throughput of rubber compounds by mixer, the annual consumption of each CA (and SD), manufacturing specification sheets (i.e., recipes, which include identity and quantity of any CA (or SD), and the maximum mixing temperature), MSDS information sufficient to derive the ethanol emission rate in terms of lb_{ETHANOL} / lb_{CA or SD}, and calculations to show compliance with the permitted limits³⁸

3. Sufficiency of Monitoring for PM from specific emission points:

As part of the previous (2007) Title V permit, generally GY had to do an observation of opacity on a weekly cycle for the following APCDs:

- Each fabric filter for Banbury mixers 1, 2, & 4 thru 9;
- Each scrubber for drop and take-away mills at Banbury mixers 7, 8 and 9; and

³⁶ Up to temperatures of approximately 330^oF (i.e., the maximum RMA recipe mix temperature for rubber compounds 1 thru 6)

³⁷ Coupling Agents used in recipes mixed at less than 250^oF are referred to as "sulfur donors" (SD)

³⁸ This is essentially the same compliance determination process that was permitted in 2002 for mixers BM1 thru BM9.

- The Collmann Run-out grinder

Current practice is to consider shorter cycle times for such observations due to sufficiency of monitoring concerns. In lieu of doing more frequent opacity observations, GY has chosen to keep a daily log of the dP across each of these APCPs³⁹.

4. Curing area:

a. Curing area throughput capacity definition:

Since at least 2002 the curing area has been represented by GY as the capacity limiting process step for the Danville facility as a whole.⁴⁰ As such, that capacity has been part of the basis for numerous NSR permit determinations.⁴¹ For confidentiality reasons, the 2002 PSD permit used the units of measure of **tons per year of uncontrolled, non-ethanol VOC emissions** and set the value at **86 ton/yr** to “protect (i.e., define) the bottleneck.” (See Attachment B to the engineering analysis for 6/12/08 permit⁴²). In the permit application for the 6/12/08 permit it is shown explicitly how that 2002 “VOC” statement of the emission limit is related to the 2008 “rubber throughput” statement of that same curing area capacity (i.e., **509.55 x 10⁶ pounds of cured rubber compounds per year**. See Attachment A of analysis for 6/12/08 permit, pages 1 and 4 and Attachment A to this SOB). Also, the 6/12/08 permit contains two independent conditions that address the “bottleneck” (i.e., Condition 2 is the “VOC” statement and Condition 3 is the “rubber throughput” statement). Since both are valid conditions in a valid permit both are included in the current Title V permit.

On a related note, the 2014 significant amendment of the 2002 permit carried forward the 2002 “VOC” statement of bottleneck capacity (albeit with language that is no longer the department’s approved standard). Therefore, the 2008 “VOC” statement of the curing area bottleneck condition streamlines out the 2014 statement of that same limitation.

b. Press emission unit description in the Significant Emissions Units (SEU) Table:

As discussed in “a” above, the capacity of the curing area has been and continues to be limited as a function of a specified amount of material that may be processed through the area as a whole rather than as a function of a discreet number of individual curing presses⁴³. Also, it is now recognized that individual press units may be of either a single-cavity or a dual-cavity design. Furthermore, the addition and upgrading individual curing press units is a regular and ongoing exercise at Danville.

³⁹ It is noted that the installation of devices to continuously measure the differential pressure drop across each listed APCD was included in the previous (2007) Title V permit.

⁴⁰ Historically this throughput has been referred to as the “bottlenecked” capacity.

⁴¹ E.g., the PSD permit dated 9/4/02 (as amended in 2014), and the 6/12/08 modification of both the mixing area and curing area

⁴² i.e., CEDS 18

⁴³ along with the individual capacities of each press

Therefore the method used in the previous (2007) Title V permit for identifying those press units⁴⁴ that have been considered for permit applicability has been changed. The current approach is to list the total number of press cavities and, since for permit applicability purposes, there are two distinct types of tires produced at Danville (i.e., airplane tires ("Aero") and Medium Radial Truck tires ("MRT")), the subtotals for Aero cavities and MRT cavities are also specified. Finally, an end note to the SEU table directs the reader to this Statement of Basis for press installation history to date in "c" below.

c. Press installation history to date:

Applicable permit dates for curing presses: DEQ determinations - 12/3/14, and no-permit-required determination letters 9/27/11, 7/3/2012 and 9/29/14.

GY determinations - On 5/13/15 BRRO received a letter dated 5/11/15 from GY describing the installation of a new dual-cavity Aero curing press. That letter laid out why GY believes that this installation is not subject to NSR permitting and did not request concurrence from DEQ.⁴⁵

5. Green Tire Spray unit #4 (GTS#4):

In anticipation of its then forthcoming installation, GY included emissions from the installation and operation of GTS#4 in the contemporaneous emission increase calculations that were part of the 2014 LRR project review. GTS#4 was not subject to NSR permitting but it is subject to the applicable requirements of NSPS BBB. Therefore, unlike the 3 previously installed green tire spray units at Danville which have been included in the insignificant emissions unit table, GTS#4 is in the significant emissions units table and the applicable provisions of BBB are included as permit conditions with the other "Curing and Finishing Equipment Requirements"

6. The previous (2007) Title V permit included a pass through general condition from the 2002 PSD permit that invalidated portions of the 2002 permit if certain installation and modification provisions of that document were not finished in a reasonable time.⁴⁶ That condition was not carried forward in the 2014 PSD permit document and so is similarly not carried forward in this renewal of the Title V permit document.

⁴⁴ i.e., listing a block quantity of units with a less than unique unit description

⁴⁵ It is noted that any owner claiming that a facility is exempt from the provisions of Article 6 must keep records in accordance with 9VAC5-80-1105 A.4 as may be necessary to demonstrate to the satisfaction of the Department its continued exempt status.

⁴⁶ See condition 21 of 9/4/02 permit document (i.e., same as condition XIII.B.5 of the 2007 Title V permit document)

INSIGNIFICANT EMISSION UNITS

The insignificant emission units (ISEU) are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9VAC5-80-110 Except as noted here the descriptions in the current ISEU table are the same as those in the previous Title V permit.

Exceptions:

- Fire pump engines EU061 and EU062 are subject to MACT ZZZZ and therefore are no longer insignificant units (See the “background” section of Emergency Engine Requirements section above.)
- EU 063 (Offline Milling for QE) was not subject to permitting (see 2011 no-permit determination). From that review, emissions were 0.06 tpy VOC which is less than the relevant threshold (i.e., 9VAC5-80-720B⁴⁷). This unit was added to ISEU table
- EU 100 (Slurry mixer) ~ emissions from the slurry mixer were quantified as part of the 2014 LRR permit review documents. Emission are PM/PM10/PM2.5 and are less than the relevant threshold (i.e., 9VAC5-80-720B) so this unit was added to ISEU table
- Steelastic Extruder (EU 101): In 2013, GY installed this new extruder. The facility had determined that that project was exempt for NSR permitting and was insignificant for Title V permitting purposes and so did not make BRRO aware of the installation at that time. They did, however, retain their analysis supporting their permit determinations. As part of the current renewal process, that supporting analysis was submitted (see 4/15/15 email Bamford to Berkeley). This unit was added to ISEU table
- T 009 ~ the name of this tank updated in light of Keeler used oil combustion shutdown. (Used Oil Collection Tank)

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9VAC5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

Permit Expiration (Conditions 193 through 198)

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

Failure/Malfunction Reporting (Condition 204)

Section 9VAC5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9VAC5-80-250 of the Title V regulations also requires malfunction reporting;

⁴⁷ see also 4/29/15 email Bamford to Berkeley

however, reporting is required within two days. Section 9VAC5-20-180 is from the general regulations. All affected facilities are subject to section 9VAC5-20-180 including Title V facilities. Section 9VAC5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9VAC5-20-180 and 9VAC5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

Malfunction as an Affirmative Defense (Conditions 222 through 225)

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9VAC5-80-250 and 9VAC5-20-180. The malfunction requirements are listed in General Conditions 196 through 199 and General Condition 178. For further explanation see the comments on general condition 178.

Asbestos Requirements (Condition 208)

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

None

FUTURE APPLICABLE REQUIREMENTS

The permit contains general references to the Boiler MACT applicable requirements and applicable compliance date. This is considered appropriate due to the numerous challenges to the rule and EPA's current reconsideration notice indicating many topics will be considered. Additionally this rule is a future applicable requirement (current compliance date is 1/31/2016)

INAPPLICABLE REQUIREMENTS

Except as noted here, the descriptions in the current inapplicable requirements table is the same as those in the previous Title V permit. As discussed above, GTS#4 is subject to 40CFR60 Subpart BBB and therefore that section is no longer inapplicable.⁴⁸

OPACITY STARTUP, SHUT DOWN, AND MALFUNCTION EXCLUSIONS

The startup, shut down, and malfunction opacity exclusion listed in 9VAC5-40-20 A.4 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9VAC5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

⁴⁸ Also, as discuss early in this document, at GY's request provisions for the future applicability of NSPS BBB to the QE are included in the current Title V permit as well.

COMPLIANCE PLAN

None

CONFIDENTIAL INFORMATION

None

PUBLIC PARTICIPATION

The proposed permit will be placed on public notice in the Danville Register & Bee from September 24, 2015 to October 26, 2015. See Attachment B to this SOB for EPA comments and DEQ responses.

Attachments:

Attachment A: Curing limit email (Trinity to Berkeley)

Attachment B: (DEQ) Response to Comments.docx

Berkeley,Thomas

From: Tom Muscenti [TMuscent@trinityconsultants.com]
Sent: Friday, February 22, 2008 10:37 AM
To: Berkeley,Thomas
Cc: christopher_bagley@goodyear.com; Tony Jabon
Subject: Curing Limit

Tom,

We have derived the basis of the 86 ton per year curing area VOC emission limit. It is derived from the potential production of tires noted in the 2000 PSD permit application and RMA emission factors:

The potential tire production after the PSD modernization project is 5,553,022 (as noted on page 5-1 of the March 200 PSD application, revised April 10, 2000). The resulting potential rubber throughput in the curing area is calculated using 114.7 lb/tire and 80% rubber per tire. Using the RMA emission factor for Tire A (worst case) of $3.37E-4$ lb VOC per lb rubber cured, the potential emissions from the curing area after the PSD project would be; $5,553,022 \text{ tire} \times 114.7 \text{ lb/tire} \times 0.8 \text{ lb rubber/lb tire} \times 3.37E-4 \times \text{ton}/200 \text{ lbs} = 86 \text{ tpy}$, which is the VOC limit for curing.

I understand that you may not have access to the throughput information contained in the versions of the application we have. We would be more than happy to scan and send you copies of the information contains on the referenced pages of the application.

Please contact me with any questions.

Regards,
Tom Muscenti
Trinity Consultants
(704) 553-7747 phone
(704) 553-8838 fax

Response to Comments Memo

NOTE: ALL STATEMENTS OF CONDITION NUMBERS USE THOSE NUMBERS AS SHOWN IN THE DRAFT PERMIT THAT WAS THE SUBJECT OF THE SEPTEMBER 2015 PUBLIC NOTICE UNLESS OTHERWISE NOTED.

COMMENT 1: Please confirm that emissions limits in the permit have procedures in place to ensure the limits are not exceeded. These procedures may include how the limits are to be measured and recorded or other metrics (such as operational procedures or physical limitations). Permit conditions to which this statement apply may include:

- a. **Permit Condition 17: particulate emissions from the black carbon transfer system**
DEQ Response: The permit includes regular observations of visible emissions and the lack of such emissions is considered a strong indicator that the air pollution control device (APCD) is functioning properly.¹ (2) The authority for the permit limit for particulate emissions from the carbon black transfer system comes from the existing source portion of Virginia's air regulation (i.e., Chapter 40). In addition to numerous industry specific allowable emissions requirements, Chapter 40 includes a set of general (ceiling) emission rates for the maximum emissions that any owner/operator across the state may emit to the atmosphere, controlled or uncontrolled, regardless of the process type (e.g., 9VAC5-40-260 for particulate matter²). Numerically, these ceiling emission rates are "look up" values based on the "Process Weight Rate" (PWR³). A comparison between the allowable emission rate and the historic utilization of the carbon black system shows the system operates non-continuously at approximately 16% of the allowable capacity.⁴ Because of the non-continuous nature of the receiving operation, and since emissions for the transfer system are required to be controlled⁵ the regular visible emissions observations that are required by condition 20 confirm that the APCD is operating properly and this is considered sufficient to insure that the emission limit is not exceeded.

¹ The "regular" observation period is weekly but this is increased to daily for 7 days following any observation that detects any visible emissions (see Condition 20). Experience indicates that even very small amounts of fugitive carbon black are readily visible.

² 9VAC5-40-260 applies to Air Quality Control Regions (ACQRs) 1 thru 6 as defined in 9VAC5-20-200. Danville is in AQCR 3.

³ Process Weight is defined as "...the total weight of all materials introduced into any process unit which may cause any emission of pollutants."

⁴ Annualized allowable emissions at 8760 hr/yr equal 51.2 tons_{PM} / yr which, using AP42 emission factors for similar processes (i.e., a rail car drop, an enclosed bucket elevator with bin vent, (6) conveyor transfers, and a storage tank drop (see permit application for initial T5 permit (CEDs #1) section 5.7.3) is equivalent to approximately 412,000 tons_{CARBONBLACK} / yr. As part of the PSD permit application for the 2014 permit (CEDs #25), the maximum carbon black throughput was approximately 64,000 tons/yr (64k/412k ~ 16%). It is also noted, the GY reports carbon black throughput annually as part of their emission inventory update (See Stack 20, Point 20, Segment 1)

⁵ See Condition 16. It is noted that the required controls (enclosures and bin vents) are passive in nature (i.e., they are always "on")

b. **Permit Condition 31: particulate matter from the shaker cooler associated with Banbury Mixers 2 and 3.**

DEQ Response: Similarly, the permit limit for each of the shaker/coolers is from the Chapter 40 PWR (9VAC5-40-260). Submitted stack tests data⁶ show that each shaker/cooler, as controlled by its simple cyclone, complies with its short term permit limit with a margin of compliance of 19%.⁷ For such cyclones, the efficiency is a function of the physical design and diminished efficiency is generally not a factor so long as the structural integrity of the shell is maintained. Assurance of the structural integrity and operation is regularly confirmed by the observation for the presence of visible emissions in accordance with condition 33 and Goodyear has confirmed that the exhaust fan that drives the cyclone process is interlocked with shaker/cooler in such a way that the fan must be running for the shaker/cooler to operate.⁸ Therefore, conformation that the cyclone for each shaker/cooler is mechanically sound and is operating is considered sufficient to insure compliance with this emission limit.

It is noted that when Alternative 1 begins, Banbury mixer 3, including its shaker/cooler, must cease operation, and similarly when Alternative 2 begins the Banbury mixer 2, including its shaker/cooler must cease operation. When Alternative 2 begins there will be no remaining shaker/coolers at GY-Danville.

c. **Permit Condition 88: particulate matter from Banbury Mixers (Alt 2)**

DEQ Response: The Banbury Mixers EU0110, EU0111, and EU0112 are each subject to minor NSR review for PM and the emission limit in condition 88 (0.01 gr/dscf) is Virginia's presumptive level of BACT performance for fabric filters. Using the exhaust air flow rate for this baghouse, this permit limit is equivalent to 1.2 lb_{PM} / hr. As shown throughout the permit application for the 2014 PSD permit, GY expects PM = PM10 = PM2.5 and the PM10 limit in condition 89 is approximately 16% of the condition 88 equivalent value.⁹ Therefore, the same dP monitoring that is considered sufficient to insure compliance with condition 89 is considered sufficient to insure compliance with condition 88. (See also response to comment on condition 105 below.)

d. **Permit condition 157: visible emissions from the Collmann Run-out tire grinder.**

DEQ Response: Emissions from this tire grinder are controlled by a rotoclone; a wet control device from which low visible emissions are typical. Per the initial NSR permit,¹⁰ this emissions unit was subject to state BACT and the condition 157 10% opacity limit is intended to support that determination. In accordance with a site-specific, DEQ approved test protocol, the grinder/rotoclone was stack tested and that test was witnessed by DEQ staff. The test demonstrated compliance with the mass emission limit with a large margin

⁶ See permit application for initial T5 permit (CEDs #1) section 5.7.2

⁷ Stack test based value / permit limit = 10.7/13.2 -> actual ~ 81% of allowable

⁸ See 12/6/15 email C. Williams to Berkeley

⁹ PM10 limit / PM limit equivalent = 0.19/1.2 lb/hr ~ 16%

¹⁰ 2004 (CEDs #6)

of compliance¹¹ and DEQ's test report states explicitly that "No visible emissions were noted during the test." The subsequent stack test report submitted on GY's behalf includes dP monitoring results recorded throughout the three test runs. Therefore tracking dP as required by condition 156 is considered sufficient to insure compliance with the opacity limit of this emission limit. (See also response to comment on condition 156 below.)

COMMENT 2: Please clarify the monitoring and operational requirements for the fabric filters in the "Mixing Equipment Section." For instance:

Permit Condition 22:

Is a CAM plan required for the fabric filter mentioned in this permit condition?

DEQ Response: Condition 22 addresses particulate emissions from each of nine Banbury mixers (EU001 thru EU009) at Danville. No, the pre-control emissions of PM, PM10 and PM2.5 from each of the Banbury units (EU001 thru EU009) are each less than 100 tons/yr.¹²

Please clarify how often the differential pressure readings should be recorded

DEQ Response: The requirement to measure and record in a log the differential pressure (dP) daily has been added to Condition 22.

and an acceptable operating range for the differential pressure.

DEQ Response: In order to support this response, the plant has supplied several extensive datasets from which actual, unit-specific dP readings may be directly compared to concurrently taken visible emissions for the same unit.¹³ Based on these datasets, the plant has proposed a dP range of 1 to 10 in.w.c.¹⁴ for each Banbury mixer (EU001 thru EU009) since the data shows that in this range no visible emissions would be expected. It is noted that each of these nine emissions units is controlled by a similar fabric filter.

Permit Condition 44/66/67:

Is a CAM plan required for the fabric filters mentioned in these permit condition?

DEQ Response: Permit Conditions 44/66/67 apply during Alternative 1. Conditions 44 and 66 address particulate emissions from Banbury mixer 110 (EU0110), and Condition 67 addresses Banburys 1, 2 & 4 thru 9. No (see footnote 12).

Please specify the acceptable operating range for the differential pressure across the filter or how the range is to be established.

DEQ Response: In order to support this response, the plant has supplied several extensive datasets from which actual, unit-specific dP readings may be directly compared to concurrently taken visible emissions for the same unit. Based on these

¹¹ Stack test / permit limit = 0.039 / 0.85 -> actual < 5% of allowable

¹² The PSD application for Banburys 110, 111, and 112 shows a pre-control emission rate of approximately 35 tons/yr for each unit for each PM species. Previous submittals from GY, Danville indicate the capacity of each of the Banburys 1 thru 4 & 8 is less than the capacity of Banbury 110. The capacities of Banburys 5, 6, 7, & 9 are all the same and approximately 1.4 x the capacity of Banbury 110. (35 x 1.4 = 48 tons/yr)

¹³ These regular visible emission evaluations were required by the former T5 permit.

¹⁴ i.e., inches of water column

datasets, the plant has proposed a dP range of 1 to 10 in.w.c. for each of Banbury mixers 1, 2 & 4 thru 9 since the data shows that in this range no visible emissions would be expected. It is noted that each of these eight emissions units is controlled by a similar fabric filter. The initial dP for Banbury mixer 110 will be 1 to 10 in.w.c. and this range will be reassessed after 6 months of operation to verify that the range correlates with no visible emissions for this mixer.

Permit Condition 85/105/106:

Is a CAM plan required for the fabric filters mentioned in these permit conditions?

DEQ Response: Permit Conditions 85/105/106 apply during Alternative 2. Conditions 85 and 105 address particulate emissions from Banbury mixers 110 (EU0110), 111 (EU0111) and 112 (EU0112), and Condition 106 addresses Banburys 1 & 4 thru 9. No (see footnote 12).

Please specify the acceptable operating range for the differential pressure across the filter or how the range is to be established.

DEQ Response: In order to support this response, the plant has supplied several extensive datasets from which actual, unit-specific dP readings may be directly compared to concurrently taken visible emissions for the same unit. Based on these datasets, the plant has proposed a dP range of 1 to 10 in.w.c. for each of Banbury mixers 1 & 4 thru 9 since the data shows that in this range no visible emissions would be expected. It is noted that each of these seven emissions units is controlled by a similar fabric filter. The initial dP for Banbury mixers 110, 111, and 112 will each be 1 to 10 in.w.c. and this range will be reassessed after 6 months of operation of each mixer to verify that the range correlates with no visible emissions for the relevant mixer.

COMMENT 3: Permit Condition 24 (and 54, 94, and 156):

Please specify the acceptable operating range (or how the range is to be established) for the differential pressure gauge across the control device. This statement also applies to Permit Conditions 54, 94, and 156.

DEQ Response: Permit Condition 24 addresses the scrubber on the take-away conveyor for each Banbury mixer 7, 8, and 9. Condition 54 is the same applicable requirement during Alternative 1, and similarly, Condition 94 is the same applicable requirement during Alternative 2. In order to support this response, the plant has supplied several extensive datasets from which actual, unit-specific dP readings may be directly compared to concurrently taken visible emissions for the same unit. Based on these datasets, the plant has proposed a dP range of 2 to 26 in.w.c. for each of the three scrubbers since the data shows that in this range no visible emissions would be expected. It is noted that these three scrubbers are similar in design.

Permit Condition 156 addresses the Collmann Run-out tire grinder (Collmann grinder). In order to support this response, the plant has supplied an extensive dataset from which actual, unit-specific dP readings may be compared to visible emissions readings taken for the Collmann grinder. While the visible emissions readings were not taken concurrently with the pressure drop readings, it is noted that the recorded dPs were maintained at a relatively consistent pressure drop during the timeframe of the dataset with little fluctuation. It is

inferred from this stability of the available dP data, that the pressure drop at the time that the visible emissions readings were taken would remain within the range indicated by the dataset. Based on this dataset, the plant has proposed a dP range of 4 to 16in.w.c. (See also response to Comment 1d above.)

COMMENT 4: Permit condition 130: (order of two questions reversed)

When does this device need to be in operation? If relevant, please add such requirements to the permit.

DEQ Response: Condition 130 applies to the Spot-Au-Matic tire balance pad units (SAMs). The SAMs service the area of the plant which applies (“glues on”) rubber pads as needed to correct out-of-dynamic-balance cured tires. These tires have been through the curing press and therefore they have residual “release agent(s)” on their surfaces. These release agents are applied to the green (i.e., pre-curing-process) tires for a number of reasons; one being so that the cured tire will not stick to the curing press bladder (inside diameter). In order for the balance pad adhesive to function, the residual release agent must be removed and this is accomplished by rinsing cured tire with a liquid (heptane). The vacuum system removes the rinsing liquid (and collects it in a drum¹⁵) and therefore must be operating whenever balance pads are being applied. There are three SAMs. Language has been added to condition 130 specifying that the vacuum recovery system must be in operation whenever any SAM is operating.

What are the monitoring and recordkeeping requirements for the “solvent vacuum recovery system”? (repeated) If relevant, please add such requirements to the permit.

DEQ Response: The SAMs are one specific example of the numerous locations at the Danville facility that apply solvents, adhesives or inks, and the emissions from these locations are typically quantified by material balance. Monitoring and recordkeeping of emissions from these locations are addressed in the T5 permit Condition 145¹⁶. Evidence that these records are in fact being kept is shown in DEQ’s Consolidated Plant Emissions Report¹⁷ which address specifically the “Total VOCs Emitted” from the three SAMs.¹⁸

COMMENT 5: Permit Condition 175.c {condition 177.c of the Dec 2015 draft}:

How are the operational limits specified in this condition to be monitored? Is there a non-resettable hour meter installed on the engine? Please consider adding the requirement of a non-resettable hour meter as a permit condition to ensure permit condition 175.c is met.

¹⁵ While responding to this comment, it was noticed that work practice standards (WPS) required by condition 143 for operation during Alternatives 1 and 2 had not been included in Alternative 0 version of the Facility Wide Limitations. Such a condition has been added at condition 140 of the Dec 2015 draft

¹⁶ While responding to this comment, it was noticed that the MSDS and refresher solvent records required by condition 145 for operation during Alternatives 1 and 2 had not been included in Alternative 0 version of the Facility Wide Monitoring and Recordkeeping requirement (i.e., condition 144). As was the case with the previous T5 permit, these MSDS and refresher solvent records also apply during Alternative 0 so these two items were added as conditions 145c & d of the Dec 2015 draft. Citations were updated as required to address these additions.

¹⁷ “The Consolidated Plant Emissions Report” is DEQ’s composite of the source’s annual emission inventory submittal.

¹⁸ See Stack 24; Point 24; Segment 1 for SAMs. Note: Other VOC streams are similarly reported under Stack 26; Point 26; Segments 2 through 14

DEQ Response: Condition 175 addresses the Fire Pump Engine EU062. Goodyear has stated that engine already has a meter as requested and a condition requiring a non-resettable hour meter has been added to the set of list of applicable requirements for EU062 {see condition **Error! Reference source not found.** of the Dec 2015 draft}.

COMMENT 6: Permit conditions 12, 34, 69, and 108:

The wording of “At a frequency not to exceed once every five years” appears to be ambiguous. This requirement seems to imply that the facility must wait 5 years between stack tests at the referenced location. Please explain or clarify the wording.

DEQ Response: The listed conditions address a “once per T5 permit term” emission test requirement (condition 12 addresses site boilers; condition 34 addresses “the fleet” of Banbury fabric filters during Alternative 0; condition 69 addresses that fleet during Alternative 1; and 108 addresses the fleet during Alternative 2). In each condition, the offending language has been changed to read: “At a frequency **of at least** once every five years, the permittee shall conduct a stack test...”

COMMENT 7: Permit Conditions 22-117:

Please clarify when the alternative scenarios and phases for the mixing equipment apply. It is unclear when the permit conditions in the Mixing Equipment section apply.

DEQ Response: Condition 1 of the draft T5 permit defines when each Alternative applies. As verbally requested, a list of the specific conditions numbers included in each Alternative has been added to Condition 1.

Please also explain (can be done in statement of basis) the multiple names assigned to each alternative. For instance, permit conditions 41 – 51 reference “(LRR Ph1)” while permit conditions 53 and 54 reference “(Alt 1).” The difference between Alt 1 and LRR Ph1 is not clear. A similar pattern is noticed in Alt 2 conditions.

There is a reason for the “LRR Ph1” v “Alt 1” language: the first (i.e. LRR Ph1), refers to a condition that is unique during the “BM110-only” phase of the NSR permit (of course a similar “LRR Ph2” condition applies during the “BM110, BM111 and BM112” phase); the second (i.e. ALT 1), is for conditions that apply equally during both alternatives; the language is verbatim. (The idea here is that the ALL of “Alternative 1” conditions apply while the LRR fleet is BM110 and they ALL GO AWAY and are replaced when either BM111 or BM112 starts up – in this way it was hoped that during the anticipated future tailoring of this Title V permit, conditions listed under Alternative 1 that apply equally during Alternative 2 would not have to be INDEPENDENTLY retained/transferred in the permit document.)

COMMENT 8: Permit Condition 28 (and 58 and 98):

The Emission Point ID SCRB-W/E31 does not appear on the Emission Unit Table at the beginning of the permit (page 6). However, there is a Stack ID SCRB-W/E71. Please check for consistency. This statement also applies to Permit Conditions 58 and 98.

DEQ Response: The listed conditions address visible emissions limits from specified emission points for each existing Banbury mixer (condition 28 addresses “the fleet” of existing Banbury fabric filters during Alternative 0; condition 58 addresses that fleet

during Alternative 1; and 98 addresses the fleet during Alternative 2) Yes, the Emission point ID listed in these conditions should be SCRB-W/E71. This has been corrected.

COMMENT 9: Permit condition 122:

Please cite the specific the Emission Unit Reference number and/or the Emission Unit Description for the “DDM machine” referenced in this condition.

DEQ Response: Done

COMMENT 10: Permit Conditions 163-169:

If the fire pump shall meet the requirements for emergency stationary CI RICE (Permit Condition 165) in Table 2c of the MACT, recommend also referencing the operational restrictions for EU061 to be considered an emergency stationary RICE. (40 CFR §63.6640(f)).

DEQ Response: Conditions 163-169 address the Fire Pump Engine EU061. Done; added new condition **Error! Reference source not found.****Error! Reference source not found.** of Dec 2015 draft