

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

Permit Issue Date: **date, 2009**

**Region:** Fayetteville Regional Office  
**County:** Scotland  
**NC Facility ID:** 8300019  
**Inspector's Name:** Robert Hayden  
**Date of Last Inspection:** 09/17/2008  
**Compliance Code:** C / In Compliance With  
 Procedural Reqr

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>		
<b>Applicant (Facility's Name):</b> Railroad Friction Products Corp  <b>Facility Address:</b> Railroad Friction Products Corp 13601 Airport Road Maxton, NC 28352  <b>SIC:</b> 3069 / Fabricated Rubber Products, Nec <b>NAICS:</b> 326299 / All Other Rubber Product Manufacturing  <b>Facility Classification: Before:</b> Title V <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V			<b>SIP:</b> <b>NSPS:</b> <b>NESHAP:</b> <b>PSD:</b> <b>PSD Avoidance:</b> <b>NC Toxics:</b> <b>112(r):</b> <b>Other:</b>		
<b>Contact Data</b>			<b>Application Data</b>		
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 8300019.09A <b>Date Received:</b> 12/31/2008 <b>Application Type:</b> Modification <b>Application Schedule:</b> TV-Significant <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 02941/T24 <b>Existing Permit Issue Date:</b> 06/09/2008 <b>Existing Permit Expiration Date:</b> 02/29/2012		
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<b>Review Engineer:</b> Mark Cuilla  <b>Review Engineer's Signature:</b> <b>Date:</b> <b>date, 2009</b>			<b>Comments / Recommendations:</b> <b>Issue</b> 02941/T25 <b>Permit Issue Date:</b> <b>date, 2009</b> <b>Permit Expiration Date:</b> February 29, 2012		

**I. Purpose(s) of Application**

Railroad Friction is submitting this Title V significant modification pursuant to 15A NCA C2Q .0504 for the recently permitted air emission sources (**ID Nos. ES-58 and ES-59**) and control device (**ID No. CD-07**), that requires the submittal of an application on or before 12 months from start of operation as part of the two-step significant modification process.

Background – On **September 28, 2007**, the Permittee submitted permit application **8300019.07D** for the installation of a new bagfilter (**ID No. CD-07**) to reduce particulate emissions from the Blanchard grinder (**ID No. ES-59**) and the Banbury weigh station (**ID No. ES-58**). These sources are used to measure raw material quantities and grind the tops of the rubber brakes, respectively. The total calculated allowable from both pieces of equipment was determined to be 1.001 pounds per hour. Potential emissions after control were calculated at 0.0024 pounds per hour indicated expected compliance (See **02941T23** Permit Review for details). Other than visible emissions, no other regulations were applicable to these sources. The final permit was issued **December 10, 2007** and required that the Permittee submit a complete Title V permit application on or before 12 months after commencing operation. This permit application completes that requirement and will be issued following both public and EPA review periods.

In addition to this requirement, the Permittee is requesting the following additional items (*DAQ's responses are in italics*).

1. That source (**ID No. ES-60**) which was part of a minor modification be included in the significant modification therefore, extending the permit shield. *Agree. As part of the public notice and EPA review periods for ES-58 and ES-59, the permit shield will be extended to all installed equipment operating as part of a minor modification.*
2. That source (**ID No. ES-19a**) be removed from the permit. *Agree. Equipment will be removed from the permit and ESM per Permittee's request.*
3. That a robotic welder (**ID No. IES-57**) be added as an insignificant source. *Agree. This proposed new source will be combined with an already existing insignificant source (**ID No. IES-56**). The Permittee estimates emissions from the combination of the two robotic welders as follows:*

<i>Welding emissions are estimated based on AP-42 factors (Tables 12.19-1 and 12.19-2)</i>	
<i>Total welding wire usage</i>	<i>78,400 pounds/year (39,200 pounds per year each)</i>
<i>PM<sub>10</sub> emission factor</i>	<i>5.2 pounds PM<sub>10</sub>/1000 pounds wire</i>
<i>Manganese factor</i>	<i>3.18 pounds Mg/10000 pounds wire</i>

<i>Total PM<sub>10</sub> emissions</i>	<i>407.7 pounds/year (0.204 tons per year)</i>
<i>Total Manganese emissions</i>	<i>24.9 pounds/year</i>

*The potential combined emissions are below the insignificant threshold. Source will be added as requested.*

4. That a maintenance shop welder (**ID No. IES-59**) be added as an insignificant source. *Agree. This proposed new source will be combined with an already existing insignificant source (**ID No. IES-60**). The Permittee estimates emissions from the combination of the two manual welders as follows:*

<i>Welding emissions are estimated based on AP-42 factors (Tables 12.19-1 and 12.19-2)</i>	
<i>Total welding wire usage</i>	<i>370 pounds/year</i>
<i>PM<sub>10</sub> emission factor</i>	<i>5.2 pounds PM<sub>10</sub>/1000 pounds wire</i>
<i>Manganese factor</i>	<i>3.18 pounds Mg/10000 pounds wire</i>

<i>Total PM<sub>10</sub> emissions</i>	<i>1.924 pounds/year (~0.001 tons per year)</i>
<i>Total Manganese emissions</i>	<i>0.117 pounds/year</i>

*The potential combined emissions are below the insignificant threshold. Source will be added as requested.*

5. That current insignificant sources (**ID Nos. IES-36 through IES-38**) be changed to (**ID No. IES-36**) "R&D room consisting of small-scale testing equipment and operations". This change will then encompass all ten small-scale R&D operations that are controlled by a single exhaust fan. *Agree. Sources will be combined in permit and in ESM to encompass entire grouping. ESM modifications will require that IES-37 and IES-38 be end-dated.*
6. That the CAM condition be reworded to reflect that an excursion is defined as the presence of visible emissions above "normal". *Agree. The current CAM requirements include daily visual monitoring and recordkeeping using "Method 22-like" procedures. This method of monitoring is a VE-no VE determination. This has been determined to directly conflict with the facility's .0521 stipulation that requires evaluating emissions versus a pre-determined "normal". The Permittee has completed this "normal" determination and FRO is aware of the levels. Therefore, as written, the Permittee would need to record an excursion each time a normal opacity level is present. As part of this permit modification, the permit has been modified to include the word "normal" in the definition of an excursion in CAM as requested.*

## II. Facility Description

The facility produces brake shoes for much of the principal railroad lines in the US and many for various subways and trolleys. Steel shoes are supplied by a shop in Fayetteville, and are washed and modified as necessary, and sprayed with a compound that enhances adhesion. The raw materials are mixed with binders/resins, heated slightly and then pressed into pads under high pressure and temperature onto steel shoes. The pads/shoes are then trimmed to remove flash, cured, painted, packed, and shipped. Materials lost in the process (dust from bag houses, reject pads and fugitive hexane) are recycled wherever possible.

## III. History/Background/Application Chronology

**March 29, 2007** – Permit **02941T21** issued as a title V renewal.

**May 24, 2007** – Permit **02941T22** issued as a minor modification for the addition of a new shredder (**ID No. ES-Shred**) and a spray booth replacement (**ID No. ES-19new**).

**December 10, 2007** – Permit **02941T23** issued as the first of the two-step Title V significant process for the installation of a new bagfilter (**ID No. CD-07**) and Blanchard grinder (**ID No. ES-59**) and Banbury weigh station (**ID No. ES-58**).

**June 9, 2008** – Permit **02941T24** issued as a combination of significant modification (**8300019.07B**), administrative amendment (**8300019.07C**), and minor modification (**8300019.08A**). As indicated, application **8300019.08A** was received as a minor modification for the addition of a new R12 unloading station (**ID No. ES-60**).

**December 31, 2008** – Permit application **8300019.09A** received as the second of the two-step Title V significant process. Application deemed complete for processing.

**January 23, 2009** – DRAFT permit sent to Permittee and FRO for comment prior to public notice and EPA review.

**date, 2009**- DRAFT permit sent to public notice and EPA review.

## IV. Permit Modifications/Changes and ESM Discussion

The following table describes the modifications to the current permit as part of the modification process.

Page(s)	Section	Description of Change(s)
Attachment	Insignificant activities	-updated permit revision number -added equipment per Permittee request
Cover	-	-updated permit revision number and all dates
All	Header	-updated permit revision number
3-5	Equipment table	-removed ES-19a per Permittee request -removed asterisk and associated table footnote for ES-60 TV minor modification language
10	2.1 A.3.c (table)	-clarified VE excursions level for CAM per Permittee request and FRO concurrence
11-12	2.1 B	-removed all references to ES-19a per Permittee

Page(s)	Section	Description of Change(s)
28-37	General Conditions	-updated conditions (v2.22.1)

The following table indicates the modifications to ESM as a result of this permit modification:

Current Description	Change resulting from permit modification
-	<i>Robotic welder (ID No. IES-57)</i>
-	<i>Manual welder (ID No. IES-59)</i>
R&D rooms consisting of small-scale testing equipment and operations (ID Nos. IES-36 through IES-38)	<i>R&amp;D room consisting of small-scale testing equipment and operations (ID No. IES-36)</i>
One spray application with panel filter (ID No. ES-19a)	End-dated per Permittee request

## V. Regulatory Review

The facility is currently subject to the following regulations:

- 15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes
- 15A NCAC 2D .0521, Control of Visible Emissions
- 15A NCAC 2D .0614, Compliance Assurance Monitoring
- 15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds
- 15A NCAC 2D .1100, Control of Toxic Air Pollutants
- 15A NCAC 2D .1111, Maximum Achievable Control Technology
- 15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
- 15A NCAC 2Q .0705, Existing Sources and SIC Calls
- 15A NCAC 2Q .0711, Emission Rates Requiring a Permit

The proposed new equipment does not add to this list of current regulations.

## VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

**NSPS** – The facility is not currently subject to any New Source Performance Standards. This permit modification does not affect this status.

**NESHAPS/MACT** – The facility is subject to the following Maximum Achievable Control Technology Standards (MACT):

- 40 CFR 63, Subpart MMMM, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts.
- 40 CFR 63, Subpart QQQQ, National Emission Standards for Hazardous Air Pollutants for Friction Materials Manufacturing Facilities.

This permit modification does not affect this status.

**PSD** – The facility is a pre-existing major stationary source for PSD, with actual and potential VOC emissions greater than 250 tons per year. Any modification would be evaluated for PSD significance levels. The PSD VOC bottleneck is the adhesive spray operations. This permit modification does not add to the facility-wide emissions of VOC. The proposed modification will also not be subject to PSD for PM or PM<sub>10</sub> because emissions of PM and PM<sub>10</sub> total less than the Significant Emission Rate (SER) of 25 tons per year and 15 tons per year respectively, for either pollutant.

**112(r)** – The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit modification does not affect this status.

**CAM** – 40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. Only the control devices (**ID Nos. CD-01 and CD-03**) are currently subject to CAM requirements. No new control devices are being added as part of this permit modification. Therefore, the current CAM requirements remain the only requirements in the permit.

However, as part of this permit modification, the CAM requirements have been clarified to define an excursion for the purposes of daily visible emissions check as “the presence of visible emissions above normal”. The Permittee has established “normal” for each control device and the FRO is aware of these levels. As originally written, the CAM plan would require that the Permittee record an excursion each day because a normal operating range was not declared. This modification corrects that oversight.

## VII. Facility Wide Air Toxics

The facility is currently subject to both 15A NCAC 2D .1100 for the modeled toxic air pollutants methyl ethyl ketone, ammonia, formaldehyde, phenol, and toluene and 15A NCAC 2Q .0711 for epichlorohydrin. This permit modification does not affect this status. In addition, as 40 CFR 63, Subpart MMMM is the last applicable MACT to this facility, a demonstration is required to be submitted indicating compliance with NC Air Toxics (15A NCAC 2Q .0705) by the same compliance date of that last MACT (**January 2, 2006**). Compliance with this requirement was demonstrated and the recently issued renewed permit indicates compliance.

## VIII. Facility Emissions Review

The following table represents the latest years emission inventory from the facility:

<b>Pollutant(s)</b>	<b>2006 Actual Emissions (tpy)</b>	<b>2007 Actual Emissions (tpy)</b>
CO	1.08	0.94
NO <sub>x</sub>	1.28	1.11
PM <sub>10</sub>	2.28	1.67
SO <sub>2</sub>	0.01	0.01
VOC	200.01	180.35
Total HAP/TAP	185.35	167.49

## IX. Stipulation Review

Robert Hayden of the FRO last inspected the facility on September 17, 2008. He wrote “the facility and their consultant have done much work to correct the permit/equipment discrepancies. Although there is a lingering issue regarding CAM for the two bagfilters, the facility appeared to be operating in compliance during the inspection.” As noted above, the “lingering” CAM issue has been resolved as part of this permit modification.

## **X. Public Notice/EPA and Affected State(s) Review**

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. South Carolina is an affected State within 50 miles of this facility.

## **XI. Conclusions, Comments, and Recommendations**

A professional engineer's seal was not required for this modification.

A consistency determination request was not required for this modification.

FRO recommends issuance of the permit and **was presented** with a DRAFT permit prior to issuance (See Section III of this Document for a permit history listing).

RCO concurs with FRO's recommendation to issue the modified air permit.