

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

DRAFT Air Permit Review

Permit Issue Date: **XX XX**, 2008

Region: Mooresville Regional Office
County: Gaston
NC Facility ID: 3600153
Inspector's Name: Carlotta Adams
Date of Last Inspection: 03/19/2008
Compliance Code: C/In Compliance With
 Procedural Reqr

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): Freightliner LLC--Mount Holly Truck Manufacturing Plant Facility Address: Freightliner LLC--Mount Holly Truck Manufacturing Plant 1800 North Main Street Mt Holly, NC 28120 SIC: 3711 / Motor Vehicles And Car Bodies NAICS: 33612 / Heavy Duty Truck Manufacturing Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: NSPS: NESHAP: PSD: PSD Avoidance: NC Toxics: 112(r): Other: RACT
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 3600153.07A Date Received: 11/01/2007 Application Type: Modification Application Schedule: TV-Significant Existing Permit Data Existing Permit Number: 03926/T35 Existing Permit Issue Date: 07/27/2007 Existing Permit Expiration Date: 06/30/2012
Thomas Wilk Environmental Engineer (707) 822-7334 1800 North Main Street Mount Holly NC, 28120	Mike McCurry Plant Manager (704) 822-7000 1800 North Main Street Mount Holly NC, 28120	Thomas Wilk Environmental Engineer (707) 822-7334 1800 North Main Street Mount Holly NC, 28120	
Review Engineer: Charles Yirka Review Engineer's Signature:		Date: XX, XX , 2008	Comments / Recommendations: Issue 03926/T36 Permit Issue Date: XX, XX , 2008 Permit Expiration Date: 06/30/2012

I. Purpose of Application

Freightliner Trucks (Freightliner) owns and operates a truck manufacturing plant (SIC 3711). The facility manufactures heavy-duty trucks for highway use. Manufacturing operation include:

- Welding Operations,
- Cab Forming Operations,
- Painting and Finishing Operations, and
- Total Truck Assembly

Freightliner has submitted this reasonably available control technology (RACT) application to address a request from DAQ concerning compliance with RACT at the Mt. Holly facility. Additionally Freightliner requested the removal of Boiler # 4 (ES-BLR-04) from the permit as it has been decommissioned from service at the facility.

The application includes the following: a RACT regulatory applicability analysis, a Petition for Alternative Controls for RACT in accordance with 15A NCAC 2D .0952(d), Title V application forms, a RACT cost analysis with calculations, RACT/BACT/LAER Clearinghouse (RBLC) query results and an excerpt from the Federal Register.

II. Facility Description

The facility manufactures heavy-duty diesel trucks. The facility produces approximately 140 trucks per day in a two shift, 16-hour day, five days per week. The facility is currently permitted to operate two natural gas boilers, spray coating and assembly operations, one truck cab pretreatment line, and welding operations. In addition, there is equipment meeting the definition of insignificant activities for permitting purposes.

III. History/Background/Application Chronology

The following is not intended to be a comprehensive chronological history:

February 1, 2001 – Application for PSD BACT submitted. Accepted avoidance limit for NOx source except for Boiler 4 and PSD BACT VOC limits for the Spray Coating and Assembly Operations

December 2006 – Application for construction and operation submitted. The facility became subject to both the Miscellaneous Metal Parts Coating NESHAP and the Plastic Parts Surface Coating NESHAP. For ease of compliance Freightliner complies with the most stringent of the two MACTs.

June 4, 2007 – Freightliner receives letter from DAQ indicating they may be subject to the RACT requirements and may request an extension.

July 7, 2007 – Letter from Freightliner requesting extension as allowed by the Director

November 1, 2007 – Freightliner submitted this application for RACT after granting of extension by DAQ (see letter September 5, 2007) as applications were due August 1, 2007.

November 14, 2007 – Received MRO permit review from Denise Hayes/Carlotta Adams.

June 18, 2008 – Permit submitted to first line supervisor for review and ESM was updated.

June 27, 2008 – Draft permit and review returned from Supervisor with minor changes. Permit and review were corrected and forwarded to the applicant for comment. Permit submitted to J. Shepard for ESM verification.

IV. Permit Modification/Changes

The following table describes the modifications to the current permit.

Page(s)	Section	Description of Change(s)
Cover Letter	NA	-amended all dates, modification type, and permit revision numbers -updated language as per latest permit shell document removed all references to both Part I and Part II
1- Permit Cover	NA	-removed all references to both Part I and Part II -amended all dates, permit and application number
2- Table of Contents	NA	-removed all references to both Part I and Part II
3-4	1	- removed BLR-04 from and vacated MACT DDDD designations from Permitted Source table -added RACT designation to MACT affected sources -amended permit revision number in header going forward
5	2.1	-removed 2.1A that described the removed boiler BLR-04. -rename all subsections 2.1 A. through 2.1 E. -corrected all references to subsections going forward

	2.1 A.1.b.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
6	2.1 A.2. b. 2.1 A.3. b. 2.1 A.4. d.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
7-8	2.1 2.1 B.1.b. 2.1 B.2.b.	-renumber references to 2.2 subsections and add RACT reference in table - " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
9	2.1 B.3.b. 2.1 B.3.c. 2.1 B.4.a. 2.1 B.4.b.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes -copied the 3.5 lb VOC per gallon from monitoring to the limit below to accompany with 1,365 tons per year BACT limit -added new " <u>Testing</u> " if required condition to correspond with the BACT limits and renumber - " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
12	2.1 C.1.b. 2.1 C.2.b. 2.1 C.2.c.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
13	2.1 D 1.b.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
14	2.1 D 2.b. 2.1 D 2.c.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
15	2.1 E 1.b. 2.1 E 2.b.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes
16	2.1 E 3.b 2.1 E 3.c. 2.2 A.	- " <u>Testing</u> " references citations changed from 2D .0501 to 2D .2601 as per rule change and permit shell changes -remove boiler BLR-04 from description
17	2.2 B.	-add new subsection B. for RACT - renumber following subsections
18	2.2 B.	-added footnote corresponding to RACT condition
34	3	-replace general conditions with version 2.2.1
41	3	-general condition JJ citation changed from 2D .0501 to 2D .2601 as per rule change
42	3	-new state enforceable condition MM for fugitive emissions -new condition NN for modifications
43	Attachment	-Add RACT definition

V. Regulatory Review

15A NCAC 2D .1400 - Nitrogen Oxides

As defined in 2D .1402(d), the Mt. Holly manufacturing plant, because it is located in Gaston County and would appear to have the potential to emit over 100 tpy of NOx. The facility however has previously accepted a practically enforceable limit to keep **ALL** NOx sources below 40 tons per year per 12-month rolling average. The limit was taken during the course of a PSD NSR review. The PSD NSR permit was issued in 2001. (The PSD NSR permit also featured BACT VOC throughput and emissions limits for the coatings).

Freightliner has requested the removal of Boiler #4 from the permit. With the removal of Boiler #4 the entire facility will continue to maintain NOx emissions below 40 tons per year. To summarize, Freightliner is not a major source of NOx and has adequately demonstrated compliance with the NOx RACT requirements of 2D .1400. As such a RACT avoidance condition of 100 tpy was not required.

15A NCAC 2D .0900 - Volatile Organic Compounds

As defined in 2D .0902(f), the Mt. Holly manufacturing plant, because it is located in Gaston County and has the potential to emit over 100 tpy of VOC, is an applicable facility for RACT rules under 2D .1900.

15A NCAC 2D .0934 - Coating of Miscellaneous Metal Parts and Products

(b) This Rule applies to application areas, flashoff areas, ovens and other processes that are used in the coating of metal parts and products of the following types of manufacturing plants:

(7) any other manufacturing plant that coats metal parts or products.

The Mt. Holly Freightliner facility is defined as an affected facility for this rule. The sources subject to this rule are contained within the Spray Coating and Assembly Operations consisting of:

Spray Coating and Assembly Operations consisting of thirty-seven (37) paint spray booths (ES-PSB-1 – ES-PSB-37), twenty-three (23) paint drying ovens (ES-PDO-1 – ES-PDO-23), eight (8) flash off booths (ES-FO-1 - ES-FO-8), one wax booth (ES-WB-1), four (4) sanding booths (ES-SB-1 - ES-SB-4), one Ecoat (32 electrode) dip tank with permeate rinse (ES-EC-3), one electrode detachment pan (ES-EC-4), various operations including gluing, caulking, seamseal, solvent wipe, cleanup solvent, and other non-coating sources of VOC(ES-1), and two paint mix rooms/storage areas (ES-PMR1 and ES-PMR2).

The following emission limitations apply to the spray coating and assembly operations that apply paints/coatings to the truck bodies and frames:

(d) With the exception stated in Paragraph (e) of this Rule, emissions of volatile organic compounds from any coating line subject to this Rule shall not exceed:

(3) 6.7 pounds of volatile organic compounds per gallon of solids delivered to a coating applicator that applies extreme performance coatings;

(e) Any source which has chosen to control emissions of volatile organic compounds under Rule .0518(e) of this Subchapter and which has installed air pollution control equipment in accordance with an air quality permit in order to comply with this Rule before December 1, 1989, may comply with the limits contained in this Paragraph instead of those contained in Paragraph (d) of this Rule. Emissions of volatile organic compounds from any coating line subject to this Rule shall no exceed:

(3) 3.5 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to a coating applicator that applies extreme performance coatings;

The rule also states that, "*Whenever more than one of the aforementioned emission limitations may apply to a process, then the least stringent emission limitation shall apply to the process.*"

Trinity Consultant's application indicates this RACT rule was written in 1980. The EPA has acknowledged that RACT rules may be dated. EPA has also indicated that sources that have undergone PSD BACT or LAER, (40CFR 51.166) review and applied these standards are considered superior to RACT. However permitting authorities must consider subsequent BACT LAER determinations to see if they are outdated. The DAQ advised Trinity Consultants to review the RACT/BACT/LAER Clearinghouse database (RBLC) to see what the latest controls that are installed on sources similar to Freightliner Mt. Holly.

Trinity found the only BACT method of control approved since Freightliner's 2001 PSD permit was for Regenerative Thermal Oxidizer (outside of limits on VOC containing material (e.g. Freightliner's permit has a 1,365 tons per year of volatile organic compounds per consecutive 12-month period and a 3.5 lb VOC per gallon limit on coatings)). A cost analysis was performed regarding the capital investment in equipment installation and operation of an RTO and was found to be prohibitively expensive. The costs effectiveness for installation on the emissions units ranges from \$19,295 to \$48,661 per ton of VOC reduction.

Trinity indicated since these controls were not cost effective they would petition the DAQ for alternative controls for VOC RACT as allowed by 2D .0952 and as follows:

15A NCAC 02D .0952 - Petition For Alternative Controls For RACT

(c) If the owner or operator of any source of volatile organic compounds subject to the requirements of this Section, can demonstrate that compliance with rules in this Section would be technologically or economically infeasible, he may petition the Director to allow the use of alternative operational or equipment controls for the reduction of volatile organic compound emissions. Petition shall be made for each source to the Director.

As a result of the rule not reflecting current operations as the standards outlined in 2D .0934 and the implementation of RACT controls would be economically infeasible Freightliner has opted to petition for alternative operational RACT controls. (Section 5 of the application contained all the elements necessary to address the petition as required by 2D .0952(d)).

Proposed Alternative Controls for RACT

EPA has acknowledged that application of a VOC MACT (40 CFR Subpart 63) is usually considered superior to the application RACT. Freightliner Mt. Holly is subject to and in compliance with 40 CFR Subpart PPPP with an emissions limit of 0.16 kg (0.16 lb) organic HAP emitted per kg(lb) coating solids used in a 12-month period. Freightliner has demonstrated that the MACT standards are adequate to demonstrate compliance with RACT.

Conclusions for RACT Requirements and Other Requested Changes to the Permit

Freightliner has demonstrated compliance with both the NO_x and the VOC RACT standards. VOC RACT was thoroughly and appropriately addressed with the MACT as the proposed alternative control. Additional add-on controls will not be required in order to reduce VOC emissions. All sources of VOCs were required to undergo a review for RACT. Those sources not subject to the MACT regulations were determined to be "exempt" from RACT as emissions were less than 15 lb/day each as allowed by 2D .0902

The other requested change was for the removal of Boiler#4 (ES-BLR-4) from the permit.

Other Changes to the Permit

Updated all 2D .0503, .0516, .and 0521 testing conditions and 2D .0521 monitoring with all citations changed from 2D .0501 to 2D .2601. This is the new testing Section 2D .2600. The associated General Condition JJ was also updated. All references to Part I and Part II have been removed consistent with the latest permit shell. See the table of changes which details changes to the permit

VI. NSPS, NESHAPS, PSD, 112(r), CAM

NSPS – Boilers, ES-BLR-02 and ES-BLR-05 remain subject to NSPS Subpart Dc. This application and modification application does not change this status. ES-BLR-04 was removed.

MACT Subpart DDDDD – It had been determined that the facility's boilers (ID Nos. ES-BLR-04, ES-BLR-02 and ES-BLR-05) were subject to 40 CFR 63, Subpart DDDDD, Industrial/Commercial/Institutional Boilers and Process Heaters MACT. Boiler ES-BLR-04 has now been removed from the permit. These boilers, while being subject to the rule, had no applicable requirements other than initial notification. It had been noted in the permit, however; this rule was vacated thus all references to the MACT (and ES-BLR-04) have been removed from the permit

MACT Subpart PPPP and MMMM – The facility is complying with Subpart PPPP the most stringent of the two MACTs. The applicability of these MACT was addressed in the previous permit.

PSD – Spray Coating and Assembly Operations remain subjected to PSD BACT limit. These sources cannot discharge into the atmosphere more than 1,365 tons per year of volatile organic compounds per consecutive 12-month period. Coatings are limited to 3.5 pounds of VOC gallon of coatings. All combustion sources including

insignificant activities, have PSD avoidance conditions for sulfur dioxide and nitrogen oxides limiting their emissions less than 40 tons per year for each pollutant. Therefore the facility is a PSD minor source for NOx and SO₂.

Boiler 4 (ES-BLR-04) was removed from the condition. and permit.

This application does not change PSD status of the facility (major) however the major source threshold is now considered to be 100 tpy for VOC and NOx.

Attainment status - Gaston County is in non-attainment for ozone. Facility was subject to a RACT review for VOC and NOx emissions. Facility will be in compliance with the RACT standards upon issuance of this permit.

112(r) –The facility is not subject to 112(r) requirements because it does not store any of the covered chemicals. This application does not affect this status.

CAM – 40 CFR Part 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have potential pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. CAM does not apply as currently all sources are uncontrolled.

VII. Facility Wide Air Toxics

Last MACT/air toxics demonstration

As a result of being subject to a MACT subpart P and M, the facility was required to comply with 15A NCAC 2Q .0705. This regulation required that the Permittee submit a permit application demonstrating compliance with 15A NCAC 2D .1100 by the same deadline that the facility is required to comply with the last MACT applicable to the facility, excluding the combustion MACT. The compliance date for the last MACT (MACT Subpart P) was April 19, 2007. The facility previously modeled compliance with all NC Air Toxics in a PSD application submitted in May 2001. The PSD Permit was issued on Sept. 28, 2001 (permit No. 03926T29).

VIII. Facility Emissions Review

The following table represents actual emissions for year 2005 and it is taken from emissions inventory of the facility:

Pollutant(s)	2005 Actual Emissions (tpy)
CO	12.96
NO _x	16.17
PM-10	8.93
SO ₂	0.09
VOC	283.75
Largest HAP	>10
Total HAP	>25

The facility is currently subject to NSPS, Subpart Dc for its 33.6 million Btu per hour natural gas-fired boiler. The Permittee is required to record and maintain records of the amounts of natural gas fired during each month. The proposed modification to add a new router does not affect this status nor does it add any new requirements.

IX. Statement of Compliance

Carlota Adams and Tony McManus of the Mooresville Regional Office last inspected the facility on March 29, 2007. The inspections report states as follows: "Based on my observations during this inspection, this facility appeared to be in compliance with the applicable air quality regulations".

X. Public Notice / EPA and Affected State Review

Copies of the permit were sent to EPA and for public notice on XX XX, 2008. EPA's 45 days review time period ended on XX XX, 2008 and 30 days public notice period ended on XX XX, 2008. Comments were or were not received from EPA and public.

XI. ESM Database Updates

The boiler ES-BLR-04 was removed from the permit and end-dated in the ESM.

XII. Conclusions, Comments, and Recommendations

MRO recommends issuance of the permit as written.

RCO concurs with the issuance of the modified permit.