NORTH CAROLINA DIVISION OF AIR QUALITY

Air Permit Review

Permit Issue Date: date, 2010

Region: Winston-Salem Regional Office
County: Rockingham
NC Facility ID: 7900138
Inspector's Name: Ray Stewart
Date of Last Inspection: 03/04/2010
Compliance Code: 3 / Compliance - inspection

Facility Data	Permit Applicability (this application only)
Applicant (Facility's Name): Loparex LLC **Facility Address:** Loparex LLC 816 Fieldcrest Road Eden, NC 27288 **SIC:** 2672 / Paper Coated And Laminated, Nec **NAICS:** 322222 / Coated and Laminated Paper Manufacturing **Facility Classification: Before:** Title V **After:** Title V **Fee Classification: Before:** Title V **After:** Title V	**SIP:** 15A NCAC 2D .0503 **NSPS:** **NESHAP:** 15A NCAC 2D .1111 (Subpart ZZZZ) **PSD:** **PSD Avoidance:** **NC Toxics:** 15A NCAC 2Q .0705 **112(r):** **Other:** 15A NCAC 2D .1109 [112j – Part 2 MACT Hammer for Boilers and Process Heaters]

Contact Data

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Application Data

Application Number: 79000138.09A and 7900138.10A
Date Received: 08/12/2009 and 04/30/2010
Application Type: 112j Part II and Renewal
Application Schedule: TV-Sign and TV-Renewal

Existing Permit Data
Existing Permit Number: 08031/T08
Existing Permit Issue Date: 11/14/2008
Existing Permit Expiration Date: 01/31/2011

Review Engineer: Mark Cuilla **Review Engineer's Signature:** **Date:** date, 2010	**Comments / Recommendations:** **Issue** 08031/T09 **Permit Issue Date:** date, 2010 **Permit Expiration Date:** date, 2015

I. Purpose of Application

This review encompasses two consolidated permit applications as follows.

1. **<u>7900138.09A – 112j Part II Significant Modification</u>**. Loparex, Inc. is located in Eden, Rockingham County, North Carolina. Application No. **7900138.09A**, received **August 12, 2009**, is a Part II MACT "Hammer" application for the following equipment:

- Two natural gas-fired floatation dryers (1.5 million Btu per hour maximum heat input capacity, each; **ID Nos. ES-01 and ES-04**)*,
- One two-zone (Nos. 3 and 4) natural gas-fired silicone dryer No. 1 (7.0 million Btu per hour maximum heat input capacity; **ID No. ES-09**)*,
- One two-zone (Nos. 1 and 2) natural gas-fired silicone dryer No. 1 (8.5 million Btu per hour maximum heat input capacity; **ID No. ES-11**)*,
- One single-zone (No. 3) natural gas-fired silicone dryer No. 2 (2.0 million Btu per hour maximum heat input capacity; **ID No. ES-22**)*,
- One two-zone (Nos. 1 and 2) natural gas-fired silicone dryer No. 2 (10.35 million Btu per hour maximum heat input capacity; **ID No. ES-24**)*,

- One natural gas-fired flame treater (1.6 million Btu per hour maximum heat input capacity; **ID No. I5**)*, and
- One natural gas-fired boiler (3.348 million Btu per hour maximum heat input capacity; **ID No. IES-BL01**)**.

* Note that these sources are each direct-fired; therefore, they are not subject to the requirements of 112j and will not be addressed as part of this modification.
** It should be noted that as part of this permit modification, the insignificant activity status for this source has been removed and the source has been placed on the list of permitted equipment.

2. **7900138.10A – TV Renewal Application**. This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit **(08031T08)** was issued on **November 14, 2008**, and is currently scheduled to expire on **January 31, 2011**. The renewal application was received on **April 30, 2010**, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

As part of the renewal application, the Permittee is requesting that a third alternative operating scenario be approved for the existing coating operations. The current permit allows for the application of solvent based coatings using a recuperative thermal oxidizer for volatile organic compound control and the application of solventless coatings without control. The requested third operating scenario would allow for the application of compliant (water-based) coatings without control. The permit application notes that, if approved, this would allow the facility to operate under the RACT standard allowing for emissions of up to 2.9 pounds of solvent per gallon of coating applied. This would require additional reporting to insure compliance with this standard if approved. The purpose of the request is to provide flexibility to production operations for "compliant coating" activity. The Permittee estimates an overall reduction in some criteria pollutants associated with this additional operating scenario due to an overall reduction in the use of the thermal oxidizers (e.g., a portion of the previously solvent based coatings using the control device would be replaced by the use of compliance coatings).

II. Facility Description

The facility's primary function is the coating of paper products with silicone to produce release liners used for products such as bumper stickers and advertising decals as well as other products used in the graphic arts industry.

III. History/Background/Application Chronology

February 22, 2006 – Permit **08031T06** issued as a Title V renewal. Application included removal of two printing presses **(ID Nos. ES-50 and ES-51)** and the inclusion of a mix booth, flood booth, and chemical storage room **(ID Nos. ES-12 through ES-14)**.

September 17, 2007 – Permit **08031T07** issued as a 502(b)(10) modification and name change for the inclusion of silicone operations **(ID Nos. ES-21, ES-22, and ES-24)**.

November 14, 2008 – Permit **08031T08** issued as an administrative amendment for the addition of the last MACT/air toxics facility wide NC air toxics modeling demonstration.

August 12, 2009 – Permit application **79000138.09A** received as a 112j Part II significant modification and deemed complete for processing.

April 15, 2010 – Permittee completed stack testing of CD-01 in order to confirm the overall VOC destruction efficiency in relation to all VOC emissions coming from the silicone dryer **(ID No. ES-11)** in order to demonstrate compliance with the NSPS for Pressure Sensitive Tape and Label Surface Coating (Subpart RR) and the Paper Web Surface Coating NESHAP (Subpart JJJJ). In addition, the Permittee intended on showing permanent total enclosure around Zones 1 and 2 of the dryer.

April 30, 2010 – Permit application **7900138.10A** received as a Title V renewal application and deemed complete for processing.

May 7, 2010 – Permittee completed stack testing of CD-04 in order to confirm the overall VOC destruction efficiency in relation to all VOC emissions coming from the silicone dryer **(ID No. ES-24)** in order to demonstrate compliance with the NSPS for Pressure Sensitive Tape and Label Surface Coating (Subpart RR) and the Paper Web Surface Coating NESHAP (Subpart JJJJ). In addition, the Permittee intended on showing permanent total enclosure around Zones 1 and 2 of the dryer.

May 12, 2010 – Received WSRO "Comments and Recommendations on Air Permit Application" document from Ray Stewart.

May 17, 2010 – Eric Hudson of the WSRO verified receipt of test report for April 15 and May 7, 2010 VOC emissions and destruction efficiency tests. That verification stated that a preliminary review of the test report indicated compliance with the emission standard but that a compliance determination would be made after final review.

August 23, 2010 – David Hughes of the DAQ Stationary Source Compliance Branch completed his review of the submitted stack test report of overall volatile organic compound destruction efficiencies for the control devices associated with silicone dryers **(ID Nos. ES-11 and ES-24)** as required by the current permit. The review indicates that the subject testing had been reviewed and deemed acceptable. The following results were noted and will be incorporated into the renewed permit as necessary:

Testing Location	Destruction Removal Efficiency (%)	Average Temperature (^{o}F)
Coater #1 (019) with RTO (CD-01)	95.13	1277.4
Coater #2 (010) with RTO (CD-04)	98.86	1299.9

date, 2010 – DRAFT permit sent to Permittee and Regional Office for comment prior to public notice and EPA review.

date, 2010 – DRAFT permit sent to 30-day public notice and 45-day EPA review.

IV. Permit Modifications/Changes and ESM Discussion

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

Pages	Section	Description of Changes
Attachment	Insignificant activities	-added listing of emergency generator (ID No. I7) with required MACT ZZZZ asterisk language
Cover	-	-amended all dates and permit revision numbers
All	Header	-updated permit revision number
3-4	Equipment table	-added "direct-fired" where needed for clarification -specified alternative operating scenarios -grouped equipment under section headings -added previous insignificant activity boiler to permit because of 112j applicability
5	2.1 A (table)	-added ID numbers where needed
6	2.1 A.1.c 2.1 A.1.d	-updated shell language -added "no reporting" language
6-7	2.1 A.3.c	-updated shell language
7	2.1 A.3.e	-updated shell language
8	2.1 B (table)	-added ID numbers where needed
9	2.1 B.1.c 2.1 B.1.d	-updated shell language -added "no reporting" language
10	2.1 B.3.c 2.1 B.3.e	-updated shell language -updated shell language
11	2.1 B.4.b	-added performance testing date for CD-04 (removed NSPS notification date submittal requirement and renumbered subsequent paragraphs accordingly)
12	2.1 B.4.d.ii.A 2.1 B.4.d.ii.B	-added summary table of performance test results -added NSPS language for performance test and efficiency demonstrations
13	2.1 B.4.j	-updated shell language
15-17	2.1 E	-added section for former insignificant boiler now permitted as a result of 112j
17	2.2 (table)	-added reference to 15A NCAC 2Q .0705
18	2.2 A.3 2.2 A.4	-added reference to completed performance testing date -added summary table of performance test results
19	2.2 A.4.b	-corrected cross reference
20	2.2 A.7	-updated shell language
21	2.2 B.1.b 2.2 B.1.c	-clarified language to include reference to alternative operating scenarios -clarified language to include reference to alternative operating scenarios
22	2.2 B.1.f	-clarified language to include reference to alternative operating scenarios
24	2.2 E.1.b	-added ID numbers
25	2.2 G	-corrected rule title
26-35	General Conditions	-updated shell conditions (v3.2.2)
36	List of Acronyms	-added acronyms for CAIR, NAA, and RACT

Other than adding MACT designations where needed, there were no additional ESM modifications necessary as part of this permit renewal.

V. Regulatory Review

The facility is currently subject to the following regulations:

15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes
15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources
15A NCAC 2D .0521, Control of Visible Emissions
15A NCAC 2D .0524, New Source Performance Standards (40 CFR 60, Subpart RR)
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 (40 CFR 63, Subparts EEEE and JJJJ)
15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions
15A NCAC 2Q .0317, Avoidance Conditions (15A NCAC 2D .0530, Prevention of Significant Deterioration)
15A NCAC 2Q .0705, Existing Sources and SIC Calls
15A NCAC 2Q .0711, Emission Rates Requiring a Permit

A regulatory review for these current permit conditions will not be included in this document. However, as part of the renewal application, both the Winston-Salem Regional Office and the Permittee have identified one insignificant diesel-fired emergency generator. This generator is subject to the requirements of 40 CFR 63, Subpart ZZZZ. See Section VI of this Document for a discussion.

As part of the modification to add 112j requirements to applicable equipment, previously insignificant boiler **(ID No. ES-BL01)** is being added to the permit. This natural gas-fired boiler (3.348 million Btu per hour maximum heat input capacity) is subject to the following regulations (*regulations will be added to permit as Section 2.1 E as necessary*):

1. 15A NCAC 2D .0503, Particulates from Fuel Burning Indirect Heat Exchangers. This regulation limits particulate matter (PM) emissions from the firing of fuel in indirect heat exchangers (in pounds per million Btu) based on the facility-wide heat input from all indirect fired sources. For facilities with a total heat input of up to 10 million Btu per hour, PM emissions from the combustion sources are limited to not greater than 0.60 pounds per million Btu. Using AP-42 emission factors, PM emissions from natural gas are estimated to be less than 0.60 pounds per million Btu as follows:

   (7.6 pounds PM/million standard cubic feet)/(1,020 million Btu/million standard cubic feet) = 0.007 pounds PM/million Btu

   Because worst-case PM emission rates are estimated to be less than the allowable PM emission rate, no monitoring/recordkeeping/reporting shall be required to demonstrate compliance with this limitation.

2. 15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources. This regulation limits sulfur dioxide (SO_2) emissions to no greater than 2.3 pounds per million Btu heat input for combustion sources. Using AP-42 emission factors, SO_2 emissions from natural gas are estimated to be less than 2.3 pounds per million Btu as follows:

   (0.6 pounds SO_2/million standard cubic feet)/(1,020 million Btu/million standard cubic feet) = 0.0006 pounds SO_2 per million Btu

   Because worst-case SO_2 emission rates are estimated to be less than the allowable SO_2 emission rate, no monitoring/recordkeeping/reporting shall be required to demonstrate compliance with this limitation.

3. 15A NCAC 2D .0521, Control of Visible Emissions. Visible emission (VE) standards provided in this regulation are applicable to potential VE emissions from any stack, vent, or outlet. This regulation limits visible emissions to no more than 20 percent opacity when averaged over a six-minute period, except that six-minute periods averaging more than 87 percent opacity may occur not more than once in any hour not more than four times in any 24-hour period. Because natural gas firing is associated with inherently low visible emissions, no monitoring/recordkeeping/reporting shall be required to demonstrate compliance with this limitation.

4. 15A NCAC 2D .1109, 112j Case-by-Case Maximum Achievable Control Technology. See Section VI of this Document for a discussion.

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

NSPS – The Permittee is subject to the New Source Performance Standards for Pressure Sensitive Tape and Label Surface Coating Operations (40 CFR 60, Subpart RR) for the silicone dryers **(ID Nos. ES-11, ES-09, ES-24, and ES-22)** with the associated recuperative thermal oxidizers **(ID Nos. CD-01 and CD-04)**. The Permittee is required to limit volatile organic compound emissions from these sources to less than 0.20 kilograms volatile organic compounds per kilogram coating solids applied as on a weighted average basis for one calendar month or demonstrate for each affected facility the required overall volatile organic compound emission reduction as calculated over a calendar month is at least 90 percent. The current permit contains compliance procedures, monitoring, recordkeeping, and reporting requirements. This permit renewal does not affect this status. However, as part of this renewal the permit language has been changed as follows:

1. The Permittee has confirmed that the applicable notification requirements provided in 40 CFR 60, Subpart A as specified in Section 2.1 B.4.c.i-iii have all been completed. Therefore, this paragraph has been removed from the permit;
2. Both thermal oxidizers have recently been tested for destruction efficiency. These approved tests established both average combustion chamber temperatures and destruction efficiencies for both oxidizers. The following table has been included in the renewed permit establishing the approved parameters:

Testing Location	Testing Date	Average Temperature (^oF)
Coater No. 1 (019) with thermal oxidizer (CD-01)	April 15, 2010	1277.4
Coater No. 2 (010) with thermal oxidizer (CD-04)	May 7, 2010	1299.9

NESHAPS/MACT/112j – The Permittee is currently subject to the following Maximum Achievable Control Technology Standards:

1. National Emission Standards for Hazardous Air Pollutants from Paper and Other Web Coating (40 CFR 63, Subpart JJJJ). This Subpart applies to the collection of all web coating lines at the facility. The Permittee shall limit organic hazardous air pollutant (HAP) emissions from the affected sources such that they are no greater than 5 percent of total organic HAPs applied for each month (i.e., at least 95 percent organic HAP reduction). The current permit included compliance, monitoring, recordkeeping and reporting requirements. This permit renewal does not affect this status. However, as part of this renewal the permit language has been changed as follows:

1. Both thermal oxidizers have recently been tested for destruction efficiency. These approved tests established both average combustion chamber temperatures and destruction efficiencies for both oxidizers. The following table has been included in the renewed permit establishing the approved parameters:

Testing Location	Testing Date	Average Temperature (^{o}F)
Coater No. 1 (019) with thermal oxidizer (CD-01)	April 15, 2010	1277.4
Coater No. 2 (010) with thermal oxidizer (CD-04)	May 7, 2010	1299.9

2. National Emission Standards for Hazardous Air Pollutants from Organic Liquids Distribution (non-gasoline) (40 CFR 63, Subpart EEEE). This Subpart applies to each new, reconstructed, or existing organic liquid distribution (OLD) operation affected source [63.2338(a)]. An organic liquid is defined in part as any non-crude oil liquid or liquid mixture that contains 5 percent by weight or greater of the organic HAP listed in Table 1 to this Subpart, as determined using the procedures specified in 63.2354(c) [63.2406]. The facility currently operates three 12,000-gallon storage tanks **(ID Nos. ES-29, ES-30, and ES-31)**. However, only one **(ID No. ES-29)** holds a liquid that meets the HAP content criteria in the definition of organic liquid. 63.2346(a) requires that each storage tank that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this Subpart must comply with paragraphs (a)(1) – (a)(4) of this Section. Those are:

If you own or operate…	And if…	Then you must…
A storage tank at an existing affected source with a capacity greater than or equal to 5,000 gallons and less than 50,000 gallons	The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is greater than or equal to 4.0 psia and less than 11.1 psia	i. Reduce emissions of total organic HAP by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR Part 63, Subpart SS, or ii. Comply with the work practice standards specified in Table 4 to this Subpart, items (1)(a), (1)(b), or (1)(c) for tanks storing liquids described in that table.

The toluene storage tank is an existing tank with a capacity of 12,000 gallons. The vapor pressure of toluene at 70 ^{o}F is 0.425 psia. This does not meet any of the tank capacity and liquid vapor pressure criteria in Table 2. Therefore, no standards apply.

Also, as part of the renewal application, the Winston-Salem Regional Office and the Permittee identified an insignificant diesel-fired emergency generator. This generator is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). 63.6590(a) defines affected source as any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. The facility is defined as a major source of HAPs and the emergency generator is identified as a 35 horsepower, 25 kilowatt diesel-fired emergency generator. 40 CFR 63, Subpart ZZZZ was modified as recently as **August 20, 2010** (75 FR 51570-51680) to address existing sources. Per the summary table provided on the EPA Website, the following requirements are applicable for an existing unit less than 500 Hp located at a major source of HAP:

Emission limits – 63.6602 **(What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake Hp located at a major source of HAP emissions?)** Table 2c

-change oil and filter every 500 hours of operation or annually, whichever comes first.
-inspect air cleaner every 1,000 hours of operation or annually, whichever comes first.
-inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Operating limits – 63.6002 **(What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake Hp located at a major source of HAP emissions?)** Table 2c

-minimize the engine's time spent at idle and minimize the engine's startup time at start-up to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

Fuel requirements – NA

Performance tests – NA

Monitoring, Installation, Collection, Operation and Maintenance requirements – 63.6625(e), (f), and (h) **(What are my monitoring, installation, collection, operation, and maintenance requirements?)**

-(e) operate and maintain the stationary RICE and after-treatment control device (if any) according to manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

-(f) you must install a non-resettable hour meter if one is not already installed.

-(h) you must minimize the engine's time spent at idle during startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2c to this subpart apply.

Initial compliance – NA

Continuous compliance – 63.6635 **(How do I monitor and collect data to demonstrate continuous compliance?)** and 63.6640 **(How do I demonstrate continuous compliance with the emission limitations and operating hours?)**

-63.6635(a) must monitor and collect date according to this section.

-63.6635(b) except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments) you must monitor continuously at all times that the stationary RICE is operating.

-63.6635(c) you may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

-63.6640(a) you must demonstrate continuous compliance with each emission limitation and operating limitation in Table 2c according to methods specified in Table 6 of this subpart.

-63.6640(b) you must report each instance in which you did not meet each emission limitation or operating limitation in Table 2c that apply to you. These instances are deviations from the emission and operating limitations in this Subpart. These deviations must be reported according to the requirements in 63.6650.

-63.6640(e) you must also report each instance in which you did not meet the requirements in Table 8 (Applicability of General Provisions to Subpart ZZZZ) to this subpart that apply to you.

-63.6640(f) you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

-(i) there is no time limit on the use of emergency stationary RICE in emergency situations.

-(ii) you may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State of local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year…

-(iii) you may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity…

Notification requirements – NA

Recordkeeping requirements – 63.6655 **(What records must I keep?)**

-63.6655(a) if you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) [as applicable].

-(a)(1) a copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in 63.10(b)(2)(xiv)

-(a)(2) records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment.

-(a)(3) records of performance tests and performance evaluations as required by 63.10(b)(2)(viii).

-(a)(4) records of all required maintenance performed on the air pollution control and monitoring equipment.

-(a)(5) records of actions taken during periods of malfunction to minimize emissions in accordance with 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

-63.6655(b)(1) through (b)(3) *this section applies to CEMS or CPMS. The Permittee does not operate this type of equipment.*

-63.6655(c) *this section applies to new or reconstructed stationary RICE which fires landfill gas or digester gas. The Permittee does not operate this type of equipment.*

-63.6655(d) you must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

-63.6655(e) you must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE:

-(e)(1) an existing stationary RICE with a site rating of less than 100 brake Hp located at a major source of HAP emissions

-(e)(2) an existing stationary emergency RICE

-(e)(3) an existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

-63.6655(f) if you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response:

-(f)(1) an existing emergency stationary RICE with a site rating of less than or equal to 500 brake Hp located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

-(f)(2) an existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

Reporting requirements – 63.6650 (except 63.6650(g)) **(What reports must I submit and when?)**

-63.6650(a) you must submit each report in Table 7 of this subpart that applies to you

-63.6650(b) you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

-(b)(1) for semiannual compliance reports, the first compliance report must cover the period beginning on the compliance date that is specified for your affected source in 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in 63.6595.

-(b)(2) for semiannual compliance reports, the first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in 63.6595

-(b)(3) for semiannual compliance reports, each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31

-(b)(4) for semiannual compliance reports, each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period

-(b)(5) you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section for those units permitted pursuant to Part 70 or 71

-(b)(6) for annual compliance reports, the first compliance report must cover the period beginning on the compliance date that is specified for your affected source in 63.6595 and ending on December 31

-(b)(7) for annual compliance reports, the first compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in 63.6595

-(b)(8) for annual compliance reports, each subsequent compliance report must cover the annual reporting period from January 1 through December 31

-(b)(9) for annual compliance reports, each subsequent compliance report must be postmarked or delivered no later than January 31

-63.6650(c) the compliance report must contain the information in paragraphs (c)(1) through (c)(6) of this section

-(c)(1) company name and address

-(c)(2) statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report

-(c)(3) date of report and beginning and ending dates of the reporting period

-(c)(4) if you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 63.6605(b), including actions taken to correct a malfunction

-(c)(5) if there were no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period

-(c)(6) if there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period

-63.6650(d) for each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (c)(4) of this section and the information in paragraphs (d)(1) and (d)(2) of this section

-(d)(1) the total operating time of the stationary RICE at which the deviation occurred during the reporting period

-(d)(2) information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken

-63.6650(e) for each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (c)(4) and (e)(1) through (e)(12) of this section

-(e)(1) the date and time that each malfunction started and stopped

-(e)(2) the date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks

-(e)(3) the date, time, and duration that each CMS was out-of-control, including the information in 63.8(c)(8)

-(e)(4) the date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction of during another period

-(e)(5) a summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period

-(e)(6) a breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes

-(e)(7) a summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period

-(e)(8) an identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE

-(e)(9) a brief description of the stationary RICE

-(e)(10) a brief description of the CMS

-(e)(11) the date of the latest CMS certification or audit

-(e)(12) a description of any changes in CMS, processes, or controls since the last reporting period

-63.6650(f) each affected source that has obtained a title V operating permit pursuant to Part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority

General Provisions – Yes

To address the cases where current insignificant activities subject to a MACT or GACT now have to be acknowledged in the permit as being applicable to the respective subpart, DAQ has created a new web page titled “Regulatory Guide for Insignificant / Permit Exempt Activities.” The link to this site is as follows:

http://daq.state.nc.us/permits/insig/

Asterisked language, including this link, has been added to the insignificant activities table of the renewed permit. Once the Permittee accesses this link he will be able to get the regulatory guide for the subject MACT/GACT, NSPS, and/or NCAC affected sources (in this case, the emergency generators **ID Nos. IES3.1, IES3.2 and IES4**).

15A NCAC 2D .1109 – On **July 20, 2007**, the D.C. Circuit Court vacated the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, which had been promulgated under 40 CFR 63, Subpart DDDDD. The North Carolina Attorney General's office has determined that the NESHAP vacatur equates to the failure of the US EPA to promulgate a valid standard as required under Section 112(d) of the Clean Air Act (CAA). As a result, the site-specific Maximum Achievable Control Technology (MACT) standards required under CAA 112(j), commonly referred to as the MACT "hammer" provisions, have been triggered. North Carolina regulations implementing the MACT hammer are found at 15 NCAC 2D .1109.

On **August 21, 2009**, the NC DAQ received a Part 2 MACT "Hammer" application from this facility asking that the NC DAQ established 112(j) emissions limitations in accordance with NC DAQ's recommendations.

No control technologies for the control of CO, metals, Hg, or HCl were identified for natural gas fired boilers in the state of North Carolina, nor were any such technologies identified in a North Carolina query using US EPA's AirControlNet software (v4.1). The NC DAQ has determined that MACT is the use of best work practice standards for natural gas combustion sources of this size (<30 million Btu per hour heat input) shall include the annual inspection and maintenance of the sources as follows:

> *To assure compliance, the Permittee shall perform an annual source inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:*
> *i. inspect the burners, and clean or replace any components of the burners as necessary;*
> *ii. inspect the flame pattern and make any adjustments to the burners necessary to optimize the flame pattern; and*
> *iii. inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.*
> *The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected sources are not inspected and maintained as required above.*

In addition, the Permittee will be required to record the results of the annual inspection in a logbook (written or electronic format), which shall be retained on-site and made available to an authorized representative upon request.

PSD – The Permittee is subject to a facility-wide volatile organic compound emission limit of less than 250 tons per consecutive 12-month period. In order to ensure compliance with this limit, the Permittee shall limit the amount of silicone coating applied at Silicone dryer No. 1 **(ID Nos. ES-09 and ES-11)** and Silicone Dryer No. 2 **(ID Nos. ES-22 and ES-24)** to no greater than 8,964,000 pounds per consecutive 12-month period, each, and shall not extrude more than 42,048,000 pounds per consecutive 12-month period at the extrusion laminators **(ID Nos. ES-03 and ES-06)**. The permit also specifies monitoring, recordkeeping and inspection/maintenance requirements as well as semi-annual reporting requirements. This permit renewal does not affect this status.

However, as part of this permit renewal, the Permittee has requested a third operating scenario be permitted. This would allow for the application of compliance water-based coatings in each of the silicone dryer lines. The two current operating scenarios include:

- AOS1 (solvent based coating) – this includes the intentional use of solvent for dissolving the silicone material into solution for coating purposes. The emissions for this activity involve the use of solvents, including HAP designated solvents. For both coating lines, the solvent emissions for the first two dryer zones are discharged after control through a thermal oxidizer. The remaining dryer zones are discharged directly without control but contain very small amounts of emissions.
- AOS2 (solventless coating) – these coatings contain no solvent. They are close the 100% solids coatings.

The amounts of coating materials that can be used are similar for both AOS's. The actual amount is dependent upon the specifics of the coating used, the width of the paper being coated, and the speed the paper being run through the respective coater along with customer demand determining hours of operation.

The third scenario described above is a low-solvent (compliant coating) that includes very low solvent coatings having very small amounts of volatile organic compounds. Regardless of the operating scenario, the Permittee has requested that it continue to comply with the current volatile organic compound PSD avoidance limit of 250 tons per year after the proposed addition of operating scenario. Therefore, condition 2.2 B will remain unchanged in the renewed permit.

Permit Limits – Conditions 2.2 B.1.a.i and ii require that the Permittee limit emissions to less than 250 tons of VOCs per 12-consecutive month period, to less than 8,964,000 pounds of silicone coating, per coating line, per 12-consecutive month period, and less than 42,048,000 pounds of extruded material per consecutive 12-month period. *These requirements do not change with the addition of a new operating scenario.*

Monitoring/Recordkeeping – Conditions 2.2 B.1.b-e require that the Permittee create and retain records of total silicone coating usage for each dryer on a monthly and yearly period, create and retain records of total amount of resin extruded at the extrusion laminators on a monthly and yearly period, perform periodic inspection and maintenance on the thermal oxidizers, and maintain a logbook of all inspection and maintenance activities. *These requirements do not change with the addition of a new operating scenario.*

Reporting – Condition 2.2 B.1.f requires that the Permittee submit semi-annual reports of all monitoring and recordkeeping activities. *This requirement does not change with the addition of a new operating scenario*.

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 renewal does not affect this status.

CAM – 40 CFR 64 requires that a continuous compliance 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. The following table indicates the current equipment/control device relationships:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Extrusion Laminating Operations			
ES-02 ES-05 ES-07	Three corona treaters	CD-02A CD-02B CD-02C	Three ozone destruction systems
Silicone Coating Operations			
ES-08	Silicone corona treater No. 1	CD-05	One ozone destruction system
ES-11	One two-zone (Nos. 1 and 2) natural gas-fired silicone dryer No. 1 (8.5 million Btu per hour maximum heat input rate)	CD-01	One natural gas-fired recuperative thermal oxidizer (21.0 million Btu per hour maximum heat input rate)
ES-24	One two-zone (Nos. 1 and 2) natural gas-fired silicone dryer No. 2 (10.35 million Btu per hour maximum heat input rate)	CD-04	One natural gas-fired recuperative thermal oxidizer (14.8 million Btu per hour maximum heat input rate)

The following table indicates the source-specific requirements for each piece of equipment and its CAM applicability (as shown CAM does not apply to these control devices):

Emission Source ID No.	Control Device ID No.	Applicable Emission Standard (Pollutant)	CAM Analysis Required?
ES-02 ES-05 ES-07	CD-02A CD-02B CD-02C	NA (ozone)	No, ozone not criteria pollutant
ES-08	CD-05	NA (ozone)	No, ozone not criteria pollutant
ES-11	CD-01	2D .0515 (particulates) 2D .0516 (sulfur dioxide) 2D .0521 (visible emissions) 2D .0524 (VOCs) 2Q .0317 (VOCs) 2D .0958 (VOCs) 2D .1111 (HAPs) 2D .1806 (Odors) 2D .1100 (NC Air toxics) 2Q .0711 (NC Air toxics)	No, CD not for particulate control No, CD not for sulfur dioxide control No, VE not criteria pollutant No, Subpart RR (VOC PSD Avoidance)* No, PSD Avoidance** No, Work practice standards No, CD not for HAP control No, Odors not criteria pollutant No, NC air toxics not criteria pollutant No, NC air toxics not criteria pollutant

Emission Source ID No.	Control Device ID No.	Applicable Emission Standard (Pollutant)	CAM Analysis Required?
ES-24	CD-04	2D .0515 (particulates)	No, CD not for particulate control
		2D .0516 (sulfur dioxide)	No, CD not for sulfur dioxide control
		2D .0521 (visible emissions)	No, VE not criteria pollutant
		2D .0524 (VOCs)	No, Subpart RR (VOC PSD Avoidance)*
		2Q .0317 (VOCs)	No, PSD Avoidance**
		2D .0958 (VOCs)	No, Work practice standards
		2D .1111 (HAPs)	No, CD not for HAP control
		2D .1806 (Odors)	No, Odors not criteria pollutant
		2D .1100 (NC Air toxics)	No, NC air toxics not criteria pollutant
		2Q .0711 (NC Air toxics)	No, NC air toxics not criteria pollutant

* 15A NCAC 2D .0614(b)(1)(A)…The requirements of this Rule shall not apply to any of the following emission limitations or standards…emission limitation or standards proposed by the Administrator of the Environmental Protection Agency after November 15, 1990 pursuant to Section 111 or 112 of the federal Clean Air Act [NSPS promulgated October 18, 1983 and as amended October 17, 2000 and December 13, 2000]. Even though the promulgation of this Subpart pre-dates 1990, CAM is not applicable because of the PSD avoidance exclusion for volatile organic compounds discussed below (e.g., same pollutant specific emission limit).

** 15A NCAC 2D .0614(b)(1)(E)…The requirements of this Rule shall not apply to any of the following emission limitations or standards…an emissions cap that is approved under the rules of this Subchapter and Subchapter 15A NCAC 2Q and incorporated in a permit issued under 15A NCAC 2Q .0500.

VII. Facility Wide Air Toxics

As indicated above, the Permittee is subject to 15A NCAC 2Q .0711, 15A NCAC 2D .1100, and 15A NCAC 2Q .0705 as a result of modeling submitted on **August 27, 2008 (7900138.08A)**. Other than minor modifications in permit condition structure to update the shell language and format of the conditions, this permit renewal does not affect this status.

15A NCAC 2D .1100 - The modeling was submitted for a facility-wide demonstration of compliance with 2D .1100 pursuant to 2Q .0705. A review of the modeling at that time "indicated that toluene and Xylene emissions from this facility at the thermal oxidizer-limited potential coating application rates cannot exceed the associated AALs (even assuming use of coating materials that are 100% toluene and Xylene). Therefore, the Permittee cannot violate the AALs in 2D .1100 without adding more equipment to the facility or destroying the existing equipment (by overheating the thermal oxidizers). The issued permit did not include any monitoring/recordkeeping/reporting requirements associated with 2D .1100.

15A NCAC 2Q .0711 - The list of toxics emitted from the facility in quantities less than the toxic permit emission rate (TPER), excluding those from combustion sources, is limited to methyl ethyl ketone. 15A NCAC 2Q .0711 requires that a permit be required prior to exceeding this TPER.

15A NCAC 2D .0705 - The modeling submitted in August, 2008 represented a facility-wide modeling demonstration per the requirements of 15A NCAC 2D .0705. The current permit includes standard permit language indicating compliance with this requirement.

VIII. Facility Emissions Review

There is no change in emissions for this renewal.

The following table represents the latest years' emission inventories from the facility:

Pollutant(s)	2008 Actual Emissions (tpy)	2009 Actual Emissions (tpy)
CO	3.55	3.85
NO_x	4.22	4.57
PM_{10}	1.99	1.57
SO_2	0.02	0.02
VOC	52.63	40.54
Total HAPs/TAPs	15.98	11.77

IX. Stipulation Review

The facility was last inspected by Ray Stewart of the WSRO on **March 4, 2010**. Based on his observations and records review, the facility was found to be in likely compliance with its Title V Air Permit and all applicable DAQ regulations.

He did note the following permit issue:

1. The facility has a small diesel-fired RICE emergency generator (35 Hp/25kW) that is subject to 40 CFR 63, Subpart ZZZZ. The final rule was published in the Federal Register on March 3, 2010 and the final compliance date after promulgation is **May 3, 2010**. As an existing emergency generator <500 Hp in capacity at a major source of HAP, the facility will be required to perform the following work practices related to the generator engine:
   -change oil and filter every 500 hours of operation or annually, whichever comes first,
   -inspect air cleaner every 1,000 hours of operation or annually, whichever comes first,
   -inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary, and
   -during period of startup, minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

   This generator is listed as an insignificant source. Even though it is now subject to MACT requirements, it does not lose its insignificant status. The equipment has been asterisked as part of the renewal of this permit to identify its MACT applicability and a location on the DAQ Website where the specific operating requirements are listed.

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 pursuant 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. The State of Virginia and the Forsyth County Local Program are affected States/areas within 50 miles of this facility.

XI. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for the renewal or 112j Part II application.

A consistency determination was not required for the renewal or 112j Part II application.

WSRO recommends issuance of the permit and was sent a DRAFT permit prior to issuance (See Section III of this document for a discussion).

RCO concurs with WSRO's recommendation to issue the renewed air permit.