

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE

PERMITTEE

UPM Raflatac, Inc.
Attn: Laura P. Cummings
400 Broadpoint Drive
Mills River, North Carolina 28759

Application No.: 10010007

I.D. No.: 103020ACN

Applicant's Designation:

Date Received: January 13, 2010

Subject: Label Stock Manufacturer

Date Issued:

Expiration Date:

Location: 101 East Corporate Drive, Dixon, Lee County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Two (2) 26,417 Gallon Adhesive Storage Tanks (E-5 and E-6);
Fourteen (14) 15,322 Gallon Adhesive Storage Tanks (E-7 through E-20);
One (1) 3,963 Gallon Adhesive Mixing Tank (E-21);
Coating Line Consisting of Two Separate Webs (Backing and Face); and
Eighteen (18) 2.7 mmBtu/hour Natural Gas-Fired Label Manufacturing Drying
Ovens (Dryer 1 through Dryer 18)

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit (FESOP) is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Material (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. The pressure sensitive labelstock coating line is subject to the New Source Performance Standards (NSPS) for Pressure Sensitive Tape and Label Surface Coating Operations, 40 CFR 60, Subparts A and RR. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

- b. Pursuant to 40 CFR 60.442(a)(1), on and after the date on which the performance test required by 40 CFR 60.8 has been completed each owner or operator subject to 40 CFR 60 Subpart RR shall cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month.
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 4. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- 5a. Pursuant to 35 Ill. Adm. Code 215.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201 or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 215.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 215.121(b)(2).
- b. Pursuant to 35 Ill. Adm. Code 215.204(c), no owner or operator of a paper coating line shall cause or allow the emission of volatile

organic material to exceed the following limitations on coating materials, excluding water and any compounds which are specifically exempted from the definition of volatile organic material pursuant to 35 Ill. Adm. Code Part 215, delivered to the coating applicator:

Paper Coating	<u>kg/l</u>	<u>lb/gal</u>
i. All paper coating except as provided in 35 Ill. Adm. Code 215.204(c)(2)	0.35	(2.9)
ii Specialty High Gloss Catalyzed Coating	0.42	(3.5)

(BOARD NOTE: These limitations shall not apply to equipment used for both printing and paper coating)

- c. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K shall apply only to photochemically reactive material.
- 6. This permit is issued based on the two (2) 26,417 Gallon Adhesive Storage Tanks (E-5 and E-6) not being subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60 Subpart Kb. Pursuant to 40 CFR 60.110b(b), 40 CFR 60 Subpart Kb does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa.
- 7a. This permit is issued based upon the source not being subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Paper and Other Web Surface Coating 40 CFR 63 Subpart JJJJ because this source is not a major source of HAP, as defined in 40 CFR 63.2.
- b. This permit is issued based upon the 3,963 Gallon Adhesive Mixing Tank (E-21) not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing, 40 CFR 63, Subpart HHHHH because the adhesive mixing tank is not located at or are part of a major source of hazardous air pollutants (HAP) emissions, as defined in Section 112(a) of the Clean Air Act.
- 8. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S.

Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.

- 9a. Pursuant to 35 Ill. Adm. Code 215.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 215.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- b. Pursuant to 35 Ill. Adm. Code 215.209, no coating line subject to the limitations of 35 Ill. Adm. Code 215.204 is required to meet 35 Ill. Adm. Code 215.301 or 215.302 after the date by which the coating line is required to meet 35 Ill. Adm. Code 215.204.
- 10a. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- b. Pursuant to 40 CFR 60.443(a), to determine compliance with 40 CFR 60.442 the owner or operator of the affected facility shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:
 - i. Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulation data.
 - ii. Compute the weighted average by the following equation:
$$G = \frac{\sum_{i=1}^n W_{oi} M_{oi}}{\sum_{i=1}^n W_{si} M_{si}}$$
 - iii. For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with 40 CFR 60.442(a)(1).
- 11a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

- b. The dryers associated with the coating line at this source shall only be operated with natural gas as the fuel. The use of any other fuel requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- c. The Two (2) 26,417 Gallon Adhesive Storage Tanks (E-5 and E-6) shall only be used to store liquids with a maximum true vapor pressure less than 15.0 kPa.
- 12a. Emissions of VOM and operation of the coating line, including cleanup activities, shall not exceed 8.1 tons/month and 81.0 tons/year. These limits are based on the maximum production rate. The VOM emissions shall be calculated using the following equation:

$$E = [\sum P_i \times d_i \times C_i] / 2,000$$

Where:

E = VOM emissions (tons);

P_i = coating and solvent usage (gallons);

d_i = density of coating and solvent used (lbs/gallon); and

C_i = VOM content of coating and solvent used (% by weight);

- b. VOM Emissions and operation of the sixteen storage tanks and one mixing tank (combined) shall not exceed 1.0 tons/month and 10.2 tons/year. These limits are based on the maximum storage tank throughput and maximum VOM emissions calculated using standard emission factors and formulas (Section 7.1, AP-42, Fifth Edition, Volume I, November 2006 or TANKS Emissions Estimation Software, Version 4.09D, October 5, 2006 for for breathing and working losses from the storage tanks).
- c. Emissions and operation of all drying ovens (combined) shall not exceed the following limits:
 - i. Natural Gas Usage:

(mmscf/Month)

(mmscf/Year)

35

350

- ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	<u>Emission Factor (lbs/mmscf)</u>	<u>Emissions (Tons/Month)</u>	<u>Emissions (Tons/Year)</u>
CO	84.0	1.47	14.70
NO _x	100.0	1.75	17.50
PM	7.6	0.14	1.33
SO ₂	0.6	0.01	0.11
VOM	5.5	0.10	0.97

These limits are based on maximum fuel usage and standard emissions factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- d. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
13. This permit is issued based on the Potential to Emit (PTE) for Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the source being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program (CAAPP) Permit.
- 14a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).
- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
- i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
 - ii. Approves the use of an equivalent method;
 - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
 - iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
 - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in

this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.

- 15a. Pursuant to 40 CFR 60.444(a), the performance test for affected facilities complying with 40 CFR 60.442 without the use of add-on controls shall be identical to the procedures specified in 40 CFR 60.443(a).
 - b. Pursuant to 40 CFR 60.446(a), the VOC content per unit of coating solids applied and compliance with 40 CFR 60.422(a)(1) shall be determined by either Method 24 and the equations specified in 40 CFR 60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Illinois EPA or USEPA may require an owner or operator to perform Method 24 tests during such months as he deems appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate.
- 16a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
 - i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Conditions 17 and 18 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
17. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 18a. Pursuant to 35 Ill. Adm. Code 215.208(a), the VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A, except for glues and adhesive coatings, two component reactive coatings forming volatile reaction products, coatings requiring energy other than heat to initiate curing, and coatings requiring high temperature catalysis for curing, providing the person proposing testing of the material submits to the Illinois EPA proof that the Method 24 results would not be representative and proof that a proposed alternative test method gives representative, accurate test results. For printing inks, the volatile organic material content shall be determined by Method 24A, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative.
- b. Pursuant to 35 Ill. Adm. Code 215.208(b), transfer efficiency shall be determined by a method, procedure or standard approved by the USEPA, under the applicable new source performance standard or until such time as USEPA has approved and published such a method, procedure or standard, by any appropriate method, procedure or standard approved by the Illinois EPA.
19. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- 20a. Pursuant to 40 CFR 60.445(a), the owner or operator of an affected facility shall maintain a calendar month record of all coatings used and the results of the reference test method specified in 40 CFR

60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.

- b. Pursuant to 40 CFR 60.445(h), records of the measurements required in 40 CFR 60.443 and 60.445 must be retained for at least two years following the date of the measurements.
21. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
21. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 22a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions of this permit:
 - i. The name and identification number of each coating as applied;
 - ii. Coating usage (gallons/month and gallons/year);
 - iii. Solvent usage (gallons/month and gallons/year);

- iv. VOM and HAP contents of each coatings and solvents used (% by weight);
 - v. Density of each coating and solvent used (lb/gallon);
 - vi. Names and identification number of materials mixed and/or stored in each tank;
 - vii. Material throughput for the tanks (gallons/month and gallons/year);
 - viii. Material true vapor pressure for materials mixed/stored in tanks;
 - ix. Natural gas usage (mmscf/month and mmscf/year); and
 - x. Monthly and annual emissions of CO, NO_x, PM, SO₂, VOM and HAPs (individual and combined) from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 23a. Pursuant to 40 CFR 60.447(a), for all affected facilities subject to compliance with 40 CFR 60.442, the performance test data and results from the performance test shall be submitted to the Illinois EPA or USEPA as specified in 40 CFR 60.8(a) of the General Provisions (40 CFR Part 60, Subpart A).
- b. Pursuant to 40 CFR 60.447(b), following the initial performance test, the owner or operator of each affected facility shall submit quarterly reports to the Illinois EPA or USEPA of exceedances of the VOC emission limits specified in 40 CFR 60.442. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Illinois EPA or USEPA semiannually.
24. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- 25a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or

deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

If you have any questions on this, please call David Hulskotter at 217/782-2113.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:DWH:

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the pressure sensitive label stock manufacturer operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (e.g., 100 tons per year of VOM) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)				<u>VOM</u>
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	
Coating Line Tanks					81.00 10.20
Natural Gas-Fired Dryers	<u>14.70</u>	<u>17.50</u>	<u>1.33</u>	<u>0.11</u>	<u>0.97</u>
Totals	<u>14.70</u>	<u>17.50</u>	<u>1.33</u>	<u>0.11</u>	<u>92.17</u>

DWH: