



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

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August 9, 2012

Mr. Terrence Pikul
3M Company
30 Commerce Road
Rockland, MA 02370

RE: ROCKLAND
Transmittal No.: X242029
Application No.: SE-12-007
Class: SM80-7
FMF No.: 130325
AIR QUALITY PLAN APPROVAL

Dear Mr. Pikul:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Waste Prevention, has reviewed your Non-Major Plan Application (“Application”) listed above. This Application concerns the proposed construction and operation of a regenerative thermal oxidizer (RTO) at your pressure sensitive tape manufacturing facility located at 30 Commerce Road, Rockland, Massachusetts (“Facility”). The Application bears the seal and signature of Amanda Garrahan, Massachusetts Registered Professional Engineer number 48132.

This Application, received February 29, 2012, was submitted as required by Administrative Consent Order Penalty ACOP-SE-11-9011-27, dated January 10, 2012 with amendments received May 18, July 17, July 30, and August 7, 2012 and in accordance with 310 Code of Massachusetts Regulations (CMR) 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 “Air Pollution Control,” regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP’s review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

3M is a manufacturer of pressure sensitive tape. Operations include the application of adhesives to paper, metal foil, plastic films, cloth, felt and foams on four (4) existing coating lines, which use reverse roll, gravure, mayer rod or knife coating methods. All coating line emissions will be captured with Permanent Total Enclosures (40 CFR 51, Appendix M, Method 204). VOC emissions from the existing coating lines (#1 - #4) are vented to a Pro Environmental Inc., 75,000 cubic feet per minute regenerative thermal oxidizer (RTO). Most equipment cleaning is performed in the coating line enclosures and a coating mixing room. The mixing room is maintained under negative pressure with emissions vented to the RTO. Coating lines #3 and #4 have dedicated tote dispensing rooms which are maintained under negative pressure and vented to the RTO.

The Permittee has indicated limited printing and quality assurance/quality control laboratory activities are conducted on-site. In accordance with 310 CMR 7.02(2)(b)16., 310 CMR Appendix C(5)(i)18.c. and d., insignificant activities are not subject to (i.e., exempt) from plan application filing and approval requirements. The Permittee has an obligation to maintain appropriate records and perform any necessary reporting to maintain compliance with respective exempt status.

Equipment at the Facility includes a cold cleaning degreaser. The Permittee has indicated that the degreasing operation meets the criteria of 310 CMR 7.18(8)(a)., by locating the degreaser inside a permanent total enclosure with a minimum overall VOC control efficiency of 90% in accordance with 310 CMR 7.18(8)(a)1.c. The Permittee has an obligation to maintain appropriate records and perform any necessary reporting to maintain compliance with this status.

The Permittee has indicated that corona surface treatment devices exist in the Facility. These devices generate ozone. The Permittee has indicated control devices for the corona surface treatment devices will achieve a minimum of 99.9% ozone control efficiency, based on manufacturers guarantee. See Special Term and Condition No. 7 in Table 6 of this Approval. The Permittee has an obligation to maintain appropriate records and perform any necessary reporting to maintain compliance with any 310 CMR 7.03 construction exemption status.

The drying ovens for coating lines #1, #2, and #3 are heated by a heat recovery system from the RTO. The drying oven for coating line #4 is heated by natural gas burners, rated at a total of 11.00 MMBtu/hr.

Additional fuel-burning equipment consists of 35 natural gas-burning space heaters with a total heat rate input of 6.4 MMBtu/hr, an emergency generator, and a fire pump. Criteria pollutant potential emissions from all sources are included for determining total facility-wide potential emissions.

2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

| Table 1 | | | |
|----------------|---|---|---|
| EU# | Description | Design Capacity | Pollution Control Device (PCD) |
| 4 | Coating line #1 | 920 pounds VOC/hr max. application rate ² 66 inch max. width | All coating lines vent to the new RTO (PCD-4) |
| 5 | Coating line #2 | 920 pounds VOC/hr max. application rate ² 74 inch max. width | |
| 7 | Coating line #3 | 1,150 pounds VOC/hr max. application rate 82 inch max. width | |
| 9C | Coating line #4 | 2,122 pounds VOC/hr max. application rate 82 inch max. width | |
| 9O | Oven for Coating line #4 | 11 MMBtu/hr | Vents to the new RTO (PCD-4) |
| 10 | Fire Pump, Clark | 0.64 MMBtu/hr VOC emission factor: 0.36 lb/MMBtu NOx ¹ emission factor: 4.41 lb/MMBtu CO emission factor: 0.95 lb/MMBtu | none |
| 11 | RTO (burners only) | 16 MMBtu/hr | none |
| 12 | Mixing Room | n/a | Vents to the new RTO (PCD-4) |
| 13 | Line #3 Dispensing Room, Die Cleaning | n/a | Vents to the new RTO (PCD-4) |
| 14 | Line #4 Dispensing Room | n/a | Vents to the new RTO (PCD-4) |
| 23 | Laboratory Equipment | Subject to 310 CMR 7.02(2)(b)16. and 310 CMR Appendix C(5)(i)18.c. and d. | none |
| 24 | Emergency Engine, Deere | 287kW VOC emission factor: 0.00251 lb/hp-hr NOx ¹ emission factor 3.7 g/KW-hr CO emission factor: 1.0 g/KW-hr | none |
| 25 | Space Heaters, quantity: 35 | 6.4 MMBtu/hr combined | none |
| 26 | Cold Solvent Degreasing (Soaking) Tank | Subject to 310 CMR 7.18(8) | Vents to the new RTO (PCD-4) |

Table 1 Key:

EU# = Emission Unit Number
PCD = Pollution Control Device
n/a = not applicable
cfm = cubic feet per minute
scf = standard cubic feet
max = maximum
hr = hour
lb = pound
g = grams
KW-hr = grams per kilowatt-hour
MMBtu = Million British Thermal Units.
RTO = Regenerative Thermal Oxidizer

Footnotes

1. Includes Unburned Hydrocarbons
2. 920 lb/hr is the total application rate for coating line #1 and coating line #2 combined.

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below:

Table 2

| EU# or PCD# | Operational / Production Limit | Air Contaminant | Emission Limit |
|--------------------------------|---|-------------------|--|
| 4, 5, 7, 9C (Coating lines) | $E_{AVOC} \leq 49.51 \text{ TPY}^6$ $E_{MVOC} \leq 7.5 \text{ TPM}^6$ $E_{AHAPs} \leq 9.9 \text{ TPY}^6$ $E_{MHAPs} \leq 1.5 \text{ TPM}^6$ $E_{AHAPt} \leq 24.9 \text{ TPY}^6$ $E_{MHAPt} \leq 3.0 \text{ TPM}^6$ See Footnote 6 for the formulas to calculate the operational limits for the Coating Lines (EUs 4, 5, 7, and 9C). VOC capture efficiency shall be 100% ² Meet the criteria for permanent total enclosure (PTE) in accordance with USEPA Method 204, 40 CFR 51 Appendix M. Emissions shall be vented to RTO (PCD-4) for emission control | VOC HAP(s) | $\leq 49.51 \text{ TPY}^5 \text{ VOC}^7$ $\leq 7.5 \text{ TPM}^5 \text{ VOC}^7$ $\leq 9.9 \text{ TPY} \text{ Single HAP}^7$ $\leq 1.5 \text{ TPM} \text{ Single HAP}^7$ $\leq 24.9 \text{ TPY} \text{ Total HAPs}^7$ $\leq 3.0 \text{ TPM} \text{ Total HAPs}^7$ See Footnote 7 for requirements pertaining to new VOC-containing formulations. 34.53 lb VOC/gal solids, before control, as applied, for EUs 4, 5, and 7 only 0.20 lb VOC/lb solid, after control, for EU 9C only 310 CMR 7.18 limits: 7.8 lb VOC per gallon of solids applied (only when coating a vinyl surface) 4.8 lb VOC per gallon of solids applied (only when coating a fabric surface) |
| 9O ¹⁰ (Oven) | Oven shall use natural gas fuel only ¹ . Emissions shall be vented to RTO (PCD-4) | NOx | 4.72 TPY |
| | | CO | 3.97 TPY |
| 10 (Fire Pump) | Equipment shall be limited to 300 operational hours per year. Equipment shall use ULSD Oil fuel only. | VOC | 0.04 TPY |
| | | NOx | 0.43 TPY |
| | | CO | 0.10 TPY |
| 11 ¹⁰ (RTO Burners) | Burners shall use natural gas fuel only. | NOx | 2.52 TPY |
| | | CO | 5.77 TPY |

| Table 2 | | | |
|--|--|--|--|
| EU# or PCD# | Operational / Production Limit | Air Contaminant | Emission Limit |
| PCD-4 ^{3,4} (RTO) | Combustion chamber temperature $\geq 1500^{\circ}\text{F}$ (or such other temperature as may be established pursuant to satisfactory compliance testing results as determined by MassDEP) Maintain a 0.8 minimum second retention time RTO shall use natural gas fuel only See Table 6. | VOC HAP | 27.4 lb VOC/hr after control ⁹ 55 ppm _v VOC (as propane), after control, 1-hour averaging period ⁹ Minimum 99% control efficiency by weight and 100% capture efficiency via USEPA Method 204, 40 CFR 51 Appendix M. |
| 12, 13, 14 | Captured VOC emissions shall be vented to RTO (PCD-4) for emission control ^{1, 8} | VOC | n/a |
| 23 (Laboratory Equipment) | n/a | VOC HAP | n/a |
| 24 (Emergency Engine) | Equipment shall be limited to 300 operational hours per year. Equipment shall use ULSD Fuel Oil only. | VOC NO _x CO | 0.14 TPY 0.34 TPY 0.10 TPY |
| 25 ^{1, 10} (Space Heaters) | n/a | VOC NO _x | 0.15 TPY 2.75 TPY |
| 26 (Soaking Tank) | Meet the criteria for permanent total enclosure (PTE) in accordance with USEPA Method 204, 40 CFR 51 Appendix M. Emissions shall be vented to RTO (PCD-4) | VOC | n/a |
| Facility-wide | The facility shall restrict usage and operations as necessary to achieve these limits. | PM PM ₁₀ PM _{2.5} SO ₂ | 2.95 TPY 2.95 TPY 2.95 TPY 0.24 TPY |

| Table 2 | | | |
|--------------------|---|------------------------|-----------------------|
| EU# or PCD# | Operational / Production Limit | Air Contaminant | Emission Limit |
| | 33.4 MMBtu/hr total heat rate input for all fuel burning equipment, combined. | NO _x | 40.98 TPY |
| | | CO | 25.60 TPY |
| | | VOC | 49.51 TPY |
| | | HAP single | 7.5 TPM |
| | | HAP single | 9.9 TPY |
| | | HAPs combined total | 1.5 TPM |
| | | HAPs combined total | 24.9 TPY |
| | | HAPs combined total | 3.0 TPM |

Table 2 Key:

- EU# = Emission Unit Number
- PCD = Pollution Control Device
- ≤ = less than or equal to
- ≥ = greater than or equal to
- PTE = Permanent Total Closure
- % = percent
- hr = hour
- ppm_v = parts per million by Volume, Dry Basis
- n/a = not applicable
- VOC = Volatile Organic Compounds
- HAPs (single) = maximum single Hazardous Air Pollutant
- HAPt (total) = total Hazardous Air Pollutants.
- NO_x = Nitrogen Oxides
- CO = Carbon Monoxide
- SO₂ = Sulfur Dioxide
- PM = Total Particulate Matter
- PM₁₀ = Particulate Matter less than or equal to 10 microns in diameter
- PM_{2.5} = Particulate Matter less than or equal to 2.5 microns in diameter
- TPY = tons per consecutive 12-month period
- TPM = tons per month
- MMBtu = Million British Thermal Units per hour
- ULSD = Ultra Low Sulfur Diesel (Fuel Oil with less than or equal to 0.0015 percent sulfur content by weight)
- USEPA = United States Environmental Protection Agency
- °F = Degrees Fahrenheit

Footnotes:

1. Emissions based on 8760 operational hours per year.
2. Subsequent to drying, the tape may contain up to 1% residual solvent, which is assumed to remain in the product that is packaged and sold. This retained solvent is not included in the capture efficiency calculation.

3. Except for periods not to exceed 5 minutes during any consecutive 2 hours.
4. The minimum RTO combustion chamber temperature shall be calculated from the average value of the combustion chamber thermocouples.
5. Includes VOC emissions from EU90 (Oven) and EU11 (RTO burners).
6. The Permittee shall limit the use of materials containing Volatile Organic Compounds (VOC), any single HAP and aggregate HAP, including those from printing and laboratory activities, such that the emission limits identified below are not exceeded. The Permittee shall use the following formula¹ to calculate those emissions:

$$E_n = U_n \times V_n \times (1 - R_n/100) \times \{1 - (c_n/100) \times (i_n/100)\}$$

Where,

- E_n = VOC or HAP emissions from an individual material,
- U_n = total usage of the material,
- V_n = VOC or HAP content of the material,
- i_n = destruction efficiency for individual material emitted,
- R_n = amount of VOC retained and not emitted, and
- c_n = capture efficiency for individual material emitted as determined by USEPA Method 204 and maintained via parameter monitoring, interlock system, or equivalent. The capture efficiency shall be 100% at all times during routine operation of the coating lines.

$$E_{AVOC} = \sum E_n = \text{annual VOC emissions}$$
$$E_{MVOC} = \sum E_n = \text{monthly VOC emissions}$$
$$E_{AHAPs} = \sum E_n = \text{annual single HAP emissions}$$
$$E_{MHAPs} = \sum E_n = \text{monthly single HAP emissions}$$
$$E_{AHAPt} = \sum E_n = \text{annual aggregate HAP emissions}$$
$$E_{MHAPt} = \sum E_n = \text{monthly aggregate HAP emissions}$$

7. The Permittee shall limit VOC emissions from coating operations in accordance with the emission limits contained in Table 2 by using only VOC-containing materials as identified in attached Table 2 and by operating in accordance with the operational limits contained in Table 2 of this Plan Approval. The Permittee is responsible for ensuring that new VOC-containing materials comply with the limitations in Table 2, including maintaining information for all raw material formulations on an “as received” and “as applied” basis, documenting VOC, HAP and solids content. Additional coating formulations may be used in coating operations provided that prior to use of any new formulations. The Permittee must document the following:
 - a. Ensure that use of any new formulation(s) shall not cause the Permittee to exceed the limits (operational and/or emission) identified in Table 2 of this Plan Approval.

¹ Draft Guidance on Design of Flexible Air Permits (White Paper Number 3) U.S.E.P.A. August 8, 2000. The Department reserves the right to modify this formula in the future based upon the “Final” version of “White Paper Number 3”.

- b. If any new formulation(s) to be used will cause the facility to exceed the above limits, then the Permittee must obtain the Department’s approval prior to the production application of any new VOC containing formulation(s).
 - c. VOC formulations used in small amounts at the Permittee’s Facility are exempt from Table 2 “VOC Limitations.” The total amount of VOC containing formulations exempted shall not exceed 55 gallons in any consecutive twelve (12) month period in accordance with 310 CMR 7.18(2)(f). In addition, the Permittee must identify the “exempt” coatings and notify the Department 30 days prior to its first use. The Facility shall comply with all recordkeeping and testing requirements, including tracking of emissions from the exempt formulations.
8. During the 180 day temporary RTO construction period, see Table 6, Special Term and Condition No. 5.
 9. Compliance with these parameters shall be demonstrated during the VOC stack compliance test of the RTO. See Table 3. Continuous monitoring of these parameters is not required.
 10. VOC, NOx, and CO emission factors for fuel combustion EUs 90, 11 and 25 are as specified in the most current issue of “Compilation of Air Pollutant Emission Factors”, EPA Publication No. AP-42, Chapter 1, Tables 1.4-2 and 1.4-4.

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

| Table 3 | |
|--------------------------------|--|
| EU or PCD# | Monitoring and Testing Requirements |
| EU 4 ,5, 7, 9C PCD-4 | <ol style="list-style-type: none"> 1. Recording Devices – The Permittee shall maintain the RTO combustion chamber temperature monitoring and recording device in an accurate operating condition. 2. Monitoring equipment installed for the purpose of documenting compliance with this Plan Approval shall be installed, calibrated, maintained and operated by the Permittee in sufficient manner to ensure continuous and accurate operations at all times. |

| Table 3 | |
|-------------------|--|
| EU or PCD# | Monitoring and Testing Requirements |
| | <p>3. The Permittee shall conduct a VOC stack compliance test, following the requirements described below, within 180 days of continuous operation of the RTO. The Permittee shall ensure that any compliance tests performed at this facility shall be conducted in accordance with procedures set forth by the appropriate USEPA Reference Test Methods, including but not limited to Method 25A, and Massachusetts Air Pollution Control Regulation 310 CMR 7.13. Such stack testing shall be:</p> <ul style="list-style-type: none"> a. conducted by a person knowledgeable in stack testing, b. conducted in accordance with procedures contained in a test protocol which has been approved by MassDEP, and c. in the presence of a representative of MassDEP when such is deemed necessary in accordance with 310 CMR 7.13. <p>See Special Term and Condition No. 6. in Table 6 of this Plan Approval.</p> |
| | <p>4. The Permittee shall demonstrate that the coating line enclosures have 100% capture efficiency based on USEPA Method 204. This compliance demonstration shall be completed when the RTO compliance test is performed.</p> |
| EU 26 | <p>5. The Permittee shall demonstrate that the cold cleaner degreaser enclosure has 100% capture efficiency based on USEPA Method 204. This compliance demonstration shall be completed when the RTO compliance test is performed.</p> |
| Facility-wide | <p>6. The Permittee shall install, calibrate, maintain and operate a monitoring device that continuously indicates that the enclosures are operating. No continuous monitor shall be required if the Permittee can demonstrate that the enclosure systems are interlocked with the facility's oven recirculation air systems.</p> |
| | <p>7. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.</p> |
| | <p>8. At the request of MassDEP, the Permittee shall conduct additional emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13.</p> |

Table 3 Key:

EU# = Emission Unit Number
 RTO = Regenerative Thermal Oxidizer
 USEPA = United States Environmental Protection Agency
 PTE = Permanent Total Enclosure

Table 4

| EU or PCD# | Record Keeping Requirements |
|---------------|---|
| PCD-4 | <p>1. The Permittee shall keep RTO temperature recorder charts or records in electronic or paper format.</p> |
| Facility-wide | <p>2. The Permittee shall maintain detailed daily, monthly and yearly records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. These records shall include but not be limited to:</p> <ul style="list-style-type: none"> a. The following monthly and annual emissions information: <ul style="list-style-type: none"> ● VOC emissions ● Single HAP emissions ● Aggregate HAP emissions b. The following monthly and annual VOC and HAP (single and aggregate) usage information: <ul style="list-style-type: none"> ● Quantity of VOC used on Lines 1 – 4, in printing, die cleaning, and in the laboratory, mixing room, and dispensing room. ● Quantity of any single HAP used on Lines 1 – 4, in printing, die cleaning, and in the laboratory, mixing room, and dispensing room. ● Quantity of aggregate HAP used on Lines 1 – 4, in printing, die cleaning, and in the laboratory, mixing room, and dispensing room. c. The following product information: <ul style="list-style-type: none"> ● Product ID ● Date, time and machine used to manufacture that product ● Total run time used to manufacture each product ● Total quantity (wgt) of adhesive used ● VOC, HAP and solids content of adhesive used ● VOC emitted for each lot of product manufactured ● HAPs emitted for each lot of product manufactured ● HAPt emitted for each lot of product manufactured |
| | <p>3. The Permittee shall maintain records to document VOC emissions from fabric and vinyl surface coating and shall be in compliance with 310 CMR 7.18(15) and (16). Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 25th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/dep/air/approvals/aqforms.htm#report</p> |

| Table 4 | |
|-------------------|--|
| EU or PCD# | Record Keeping Requirements |
| | 4. The Permittee shall maintain daily, monthly and annual logs of raw materials used. These logs shall be kept in a complete and accurate fashion at all times and shall be available for Department inspections. The Permittee may reconcile VOC and HAP contained in any hazardous waste shipped during the month when determining monthly emissions. The Permittee shall maintain beginning and end of year inventory records, hazardous waste disposal records, and purchase records for VOC and HAP-containing material, such that MassDEP may check these for consistency with plant logs. Such records shall verify the VOC and HAP content, and quantity present, in the waste being shipped if reconciling monthly emissions. |
| | 5. The Permittee shall maintain records of monitoring and testing as required by Table 3. |
| | 6. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date Standard Operating and Maintenance Procedure (SOMP) for the PCD(s) approved herein on-site. |
| | 7. The Permittee shall maintain a record of routine maintenance activities performed on the approved PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed. |
| | 8. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation. |
| | 9. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration. |
| | 10. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years. |
| | 11. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request. |

Table 4 Key:

- EU# = Emission Unit Number
- PCD = Pollution Control Device
- RTO = Regenerative Thermal Oxidizer
- SOMP = Standard Operating and Maintenance Procedure
- USEPA = United States Environmental Protection Agency
- VOC = Volatile Organic Compounds

Table 5

| EU or PCD# | Reporting Requirements |
|---------------|---|
| Facility-wide | 1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a “Responsible Official” as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c). |
| | 2. The Permittee shall notify the Southeast Regional Office of MassDEP, BWP Compliance and Enforcement Chief by telephone (508) 946-2878, email, sero.air@state.ma.us or fax (508) 947-6557 as soon as possible, but no later than one (1) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Compliance and Enforcement Chief at MassDEP within three (3) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s). |
| | 3. The Permittee shall report every three years or as often as required by 310 CMR 7.12 to MassDEP, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval. |
| | 4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30 days from MassDEP’s request. |
| | 5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements. The pre-test protocol shall include, but not be limited to, a description of: the emission testing program proposed, applicable emission limits for which testing and demonstration of compliance is required, sampling point locations, sampling equipment, analytical procedures, proposed test methods, the proposed operating conditions for the required testing and identity of the independent third party testing company. |
| | 6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements. The final emission test report shall include, but not be limited to, a description of: the emission testing program conducted; VOC emission rates in units of ppm, and lb/hr; applicable emission limits for which testing was required; a summary of test results demonstrating the status of compliance with the emission limits; sampling point locations; sampling equipment; analytical procedures; actual test methods used; the actual operating conditions that the testing was conducted under; and identity of the independent third party testing company. |
| | 7. The Permittee has indicated that the facility’s equipment approved herein is subject to 40 CFR Part 60, Subpart RR, “Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations” and all applicable requirements contained therein. All notifications and reporting required by this Conditional Approval as well as 40 CFR Part 60, Subpart RR shall be made to the attention of: Department of Environmental Protection, Bureau of Waste Protection, 20 Riverside Drive, Lakeville, MA 02347, Attention Compliance and Enforcement Section. |

| Table 5 | |
|-------------------|--|
| EU or PCD# | Reporting Requirements |
| | 8. The Permittee shall notify the MassDEP of the date the RTO approved herein has been deemed ready for continuous operation within 10 (ten) days after such date. |
| | 9. The Permittee shall notify the MassDEP of the date the ozone destruction device(s) has/have been deemed installed within 10 (ten) days after such date. |
| | 10. The Permittee shall notify the MassDEP of the date the ozone destruction device(s) has/have been deemed ready for continuous operation within 10 (ten) days after such date. |

Table 5 Key:

EU# = Emission Unit Number
 PCD = Pollution Control Device

4. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:

| Table 6 | |
|------------------------------|---|
| EU or PCD# | Special Terms and Conditions |
| EU 4,5,7, 9C PCD-4 | 1. The Permittee shall ensure the four (4) coating lines are interlocked with the RTO such that the coating lines will not operate if the RTO does not meet the operational conditions required in Table 2 of this Plan Approval. 2. The minimum RTO temperature shall be 1500 degrees Fahrenheit until completion of the initial compliance test. Upon MassDEP approval of the test report, the new minimum combustion chamber temperature shall be the average temperature from the most recent compliance test where the minimum control efficiency was demonstrated. |
| Facility-wide | 3. This Plan Approval supersedes MassDEP Approval 4P04013, dated January 19, 2007. Plan Approval 4P04013 shall be deemed null and void. The underlying application for Plan Approval 4P04013 shall continue to remain valid. |

| Table 6 | |
|-------------------|---|
| EU or PCD# | Special Terms and Conditions |
| | <p>4. The Permittee shall employ good housekeeping practices throughout the Facility. Good housekeeping is defined as storing, using and disposing of VOC in a manner which will minimize evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover. The Permittee shall dispose of VOC material in a manner consistent with Federal and State Hazardous Waste Regulations. All used wiping rags shall be stored in a covered container and collected for proper disposal.</p> |
| | <p>5. The Permittee has indicated that several of the facility’s controlled emission sources will be uncontrolled during the 180 day temporary RTO construction period. Construction and operation of the Line 3 Dispensing Room (including die cleaning) and mixing room shall be consistent with Appendix G of the Permittee’s February 29, 2012 Application, and Appendix B of the Permittee’s supplemental letter dated May 18, 2012. For EU12 and EU13, the applicant shall maintain detailed daily usage and emission records, and shall not exceed 138 pounds of VOC emissions per day during this 180 day period. Emission from these processes shall be added the Facility’s monthly and annual totals, and shall comply with the emission limitations contained in Table 2 of this Plan Approval. All uncontrolled sources described in this Special Condition shall be controlled within 180 days from the date of this Plan Approval. The Permittee shall send notice of the start date of this construction to MassDEP within seven (7) days of initiating construction. The Permittee shall send notice to MassDEP when the emissions from the processes described in this Special Condition are controlled, within seven (7) days of controlling said emissions.</p> |
| | <p>6. The Permittee shall comply with the federal requirements which are described in the Code of Federal Regulations, Title 40, Part 60, Subpart RR, titled "Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations", including, but limited to 40 CFR 60 Subpart RR Sec. 60.443(e) and (f), and incorporated herein by reference for the 4 (four) coating lines used in the manufacture of pressure sensitive tape and label materials. However, since MassDEP required overall VOC control efficiency of 99% by weight contained herein is more stringent than the standard (90% by weight) set forth at 40 CFR 60 Subpart RR Sec. 60.442(a)(2)(i), it is not necessary for the Permittee to perform the calculations provided at 40 CFR 60 Subpart RR Sec. 443(a), (b), and (d) which would otherwise be required in order to determine compliance with the standard set forth at 40 CFR 60 Subpart RR Sec. 60.442(a)(2)(i).</p> |
| | <p>7. On or before May 1, 2013, the Permittee shall construct and operate ozone destruction devices when operating corona surface treatment devices. The ozone destructions shall meet or exceed 99.9% control efficiency (destruction efficiency is the product of capture efficiency and destruction efficiency).</p> |

Table 6 Key:

- EU# = Emission Unit Number
- RTO = Regenerative Thermal Oxidizer
- VOC = Volatile Organic Compounds
- CFR = Code of Federal Regulations

B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including, but not limited to, rain protection devices known as “shanty caps” and “egg beaters.” The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

| Table 7 | | | | |
|------------------------------------|----------------------------------|-------------------------------------|--------------------------------------|---|
| EU# / PCD# | Stack Height Above Ground | Stack Inside Exit Dimensions | Stack Gas Exit Velocity Range | Stack Gas Exit Temperature Range |
| EU4, 5, 7, 9C, 9O, 11 PCD-4 | 50 feet | 7 feet | 35 – 65 feet per second | 150 – 650 °F |

Table 7 Key:

EU# = Emission Unit Number
 PCD# = Pollution Control Device Number
 °F = Degrees Fahrenheit

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).

- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.

- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.

- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Dan Kamieniecki by telephone at 508-946-2717, or in writing at the letterhead address.

*This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.*

Thomas Cushing
Permit Section
Bureau of Waste Prevention

Enclosure

ecc: Rockland Board/Dept. of Health
Rockland Fire Department
MassDEP/Boston – Y. Tian
MassDEP/SERO – M. Pinaud, G. Hunt, L. Black
3M Company – J. Cowman