



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

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May 9, 2012

The Haartz Corporation
87 Haywood Road
Acton, MA 01720
Attention: Richard Hatfield

RE: ACTON
Transmittal No.: X242023
Application No.: CE-12-009
Class: SM-50
FMF No.: 130050
SSEIS No. 119-0901
AIR QUALITY PLAN APPROVAL

Dear Mr. Hatfield:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Waste Prevention, has reviewed your Limited Plan Application (“Application”) listed above. This Application concerns the proposed substantial reconstruction, and operation of Topcoat Line 1 at your fabric coating facility located at 87 Haywood Road, Acton, Massachusetts (“Facility”).

This Application was submitted in accordance with 310 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.

This Plan Approval supersedes all previous 310 CMR 7.02 approvals with the exception of the facility-wide 50% emissions cap issued June 27, 2011. The 50% emissions cap limits are incorporated in the facility-wide emission limits stated in Table 2 below.

DESCRIPTION OF FACILITY AND APPLICATION

A. HISTORY

The Permittee manufactures coated web based products (fabric, vinyl, film, etc.) at its facility at 87 Haywood Road Acton, MA. The Facility uses various solvent and water-based coatings on its five coating lines. The coating lines include the application stations and gas fired drying ovens. Solvent emissions are controlled by the use of low Volatile Organic Compounds ("VOC") coatings and/or Regenerative Thermal Oxidizers ("RTO"). There are currently three (3) approved RTOs operating at this Facility.

On June 12, 2000, MassDEP issued a Plan Approval, Transmittal #**W010803**, for the installation of TC3 water-based coating line and associated RTO rated at 5,000 cubic feet per minute ("cfm").

On June 3, 2002, MassDEP issued a Plan Approval, Transmittal #**W019717**, for the installation of two RTOs to replace existing thermal oxidizers on TC1, TC2, WR1, and WR2 coating lines: a Langbein Engelbracht America (LAE) RTO rated at 20,000 cfm (RTO-20) and a LAE RTO rated at 30,000 cfm RTO (RTO-30).

On March 6, 2003, MassDEP issued a Plan Approval, Transmittal #**W031260**, for the establishment of Restricted Emission Status ("RES") for the whole facility HAPs emissions.

On June 27, 2011, MassDEP issued a **50% Emissions Cap** approval to the Permittee for the purpose of changing the Permittee's fee classification from RES to a lesser emitting fee classification ("SM50"). This 50% Emissions Cap remains in effect following this Plan Approval.

On June 30, 2011, MassDEP issued a non major Comprehensive Plan Approval, Transmittal #**X236125**, which modified the existing coating line TC3, replaced the existing RTO serving TC3 with a new RTO rated at 30,000 cfm (TANN Model No. 3096C), and tied the exhaust duct from TC3 into a common exhaust mixer box with the existing 20,000 cfm and 30,000 cfm RTOs (RTO-20 and RTO-30), so that any combination of operating coating lines may be vented to any combination of the three RTOs. Plan Approval #X236125 superseded Plan Approvals #W010803 and #W031260.

The present application Transmittal #X242023 was received on March 16, 2012. This Plan Approval #X242023 supersedes Plan Approvals #W019717 and #X236125.

B. PROJECT DESCRIPTION

The approved project consists of the following:

1. Modification of existing coating line TC1 by adding a new coating head and drying oven.
2. Removal of the previous solvent condenser system on TC1 and venting TC1 exclusively to the RTOs for emission control.

1. 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) |
| EU #1 | TC1 coating line | na | All coating lines vent to a common duct leading to the three RTOs which are: 20,000 cfm RTO and 30,000 cfm RTO (approved under #W019717 in 2002) and 30,000 cfm RTO (approved under #X236125 in 2011) |
| EU #2 | TC2 coating line | na | |
| EU #3 | TC3 coating line | na | |
| EU #4 | WR1 coating line | na | |
| EU #5 | WR2 coating line | na | |
| EU #6 | Mixing and Compounding | na | Zeolite Concentrator Wheel |

Table 1 Key:

EU# = Emission Unit Number
 cfm = cubic feet per minute
 RTO = Regenerative Thermal Oxidizer

2. 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# | Operational / Production Limit | Air Contaminant | Emission Limit |
| EU#1, 2, 3, 4 and 5 | 1. Shall be vented to RTOs for emission control. | VOC/ HAPs | 1. 99% destruction efficiency or ≤ 10 ppm as propane 2. 310 CMR 7.18 limits: 7.8 lb VOC per gallon of solids applied (vinyl surface coating) 4.8 lb VOC per gallon of solids applied (fabric surface coating) |
| Facility -wide | 2. The facility shall restrict usage and operations as necessary to achieve these limits. | PM | ≤ 50 tons per year |
| | | SO ₂ | ≤ 50 tons per year |
| | | NO _x | ≤ 25 tons per year |
| | | CO | ≤ 50 tons per year |
| | | VOC | ≤ 25 tons per year |
| | | HAP single | ≤ 5 tons per year |
| | | HAPs (combined total) | ≤ 12.5 tons per year |

Table 2 Key:

EU# = Emission Unit Number
 \leq = less than or equal to
 % = percent
 ppm = parts per million
 VOC = Volatile Organic Compounds
 HAP (single) = maximum single Hazardous Air Pollutant
 HAPs (total) = total Hazardous Air Pollutants.
 NO_x = Nitrogen Oxides
 CO = Carbon Monoxide
 SO₂ = Sulfur Dioxide
 PM = Total Particulate Matter
 tons per year = tons per consecutive 12-month period

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# | Monitoring and Testing Requirements |
| EU #1 through #5 | 1. Recording Devices – The Permittee shall maintain the following recording devices in an accurate operating condition: RTO combustion chamber temperature monitoring and recording device |
| | 2. Monitoring equipment or emission monitoring systems 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 |
| | 3. All three RTOs shall be stack tested following the requirements described below within 180 days of continuous operation of the modified TC3 coating line and RTO. The Permittee shall ensure that any compliance tests that may be required at this facility shall be conducted in accordance with procedures set forth by the appropriate USEPA Reference Test Methods and Massachusetts Air Pollution Control Regulation 310 CMR 7.13. Such stack testing shall be: <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. |
| | 4. The Permittee shall test the PTE of the coaters using USEPA Method 204 to verify the 100% capture efficiency of the enclosures, at the same time that the RTOs are stack tested. |
| | 5. The Permittee shall test the performance of the RTOs and PTEs to verify their compliance with required capture and destruction efficiencies every five years following the testing required in items 3. and 4. above. |
| Facility- wide | 6. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration. |
| | 7. If and when MassDEP requires it, the Permittee shall conduct additional emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. |

Table 3 Key:

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

| Table 4 | |
|-------------------|--|
| EU# | Record Keeping Requirements |
| EU #1- #5 | 1. The Permittee shall keep RTO temperature recorder charts or records. |
| Facility- wide | 2. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records to document VOC emissions from fabric and vinyl surface coating 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 15 th 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 . |
| | 3. The Permittee shall maintain records of monitoring and testing as required by Table 3. |
| | 4. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site. |
| | 5. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), 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. |
| | 6. 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. |
| | 7. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration. |
| | 8. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years. |
| | 9. 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# | 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 Central Regional Office of MassDEP, BWP Permit Chief by telephone: 508-767-2845 , email: CERO.Air@massmail.state.ma.us or fax : 508-792-7621, 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 Permit 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, in accordance with 310 CMR 7.12, 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. |
| | 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. |

Table 5 Key:

EU# = Emission Unit Number

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# | Special Terms and Conditions |
| EU #1 through #5 | 1. Each RTO shall provide a 0.8 second retention time at 1500 degrees Fahrenheit. |
| | 2. The temperature at which an RTO is stack tested and found to achieve the required control efficiency, whether above or below 1500 degrees Fahrenheit, shall be the new required operating temperature. |
| Facility- wide | 3. 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 |

Table 6 Key:

EU# = Emission Unit Number
 RTO = Regenerative Thermal Oxidizer
 VOC = Volatile Organic Compounds

- 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# | Stack Height Above Ground (feet) | Stack Inside Exit Dimensions | Stack Gas Exit Velocity Range (feet per second) | Stack Gas Exit Temperature Range (°F) |
| EU #1 through #5 | 40 feet | 52 inch (new 30,000 cfm RTO) | na | na |
| | 40 feet | 42 inch (RTO-20) | na | na |
| | 40 feet | 48 inch (RTO-30) | na | na |

Table 7 Key:

EU# = Emission Unit Number

°F = Degree Fahrenheit
cfm = cubic feet per minute

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 Paul Dwiggin by telephone at 508-767-2760, 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.**

Roseanna E. Stanley
Acting Permit Chief
Bureau of Waste Prevention

Enclosure

ecc: Local Board of Health/Dept of Health
Fire Department
MassDEP/Boston - Yi Tian
Epsilon Associates