



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

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

May 16, 2012

Mr. Noah Cermak
SABIC Innovative Plastics US, LLC
1240 Tyler Street
Pittsfield, MA 01201

RE: PITTSFIELD
Transmittal No.: X250465
Application No.: 1-P-12-007
Class: SM-25
FMF No.: 444092
AIR QUALITY PLAN APPROVAL

Dear Mr. Cermak:

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 construction, substantial reconstruction and/or alteration and subsequent operation of referenced equipment at your Polymer Products Development Center (PPDC) facility located in Building 100 at 1240 Tyler Street in Pittsfield, 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.

1. DESCRIPTION OF FACILITY AND APPLICATION

SABIC Innovative Plastics US, LLC (“SABIC”) proposes to install a Col-Met Model IB-06-07-05-00 spray paint booth for research and development purposes at the Polymer Products Development Center (PPDC) located in Building 100 at its facility located at 1240 Tyler Street in Pittsfield, MA. The new smaller paint booth will allow better energy efficiency for research coating operations. Additional auxiliary equipment will include a natural gas fired air tempering inlet heater.

The Col-Met paint booth will be installed with Supra II Mini-Mesh, multi-ply non-woven polyester particulate filters manufactured by Columbus Industries. The filters have a minimum rated particulate removal efficiency of 98%. The paint booth will have a face velocity of below 200 feet per minute (fpm). The paint booth will discharge to a vertical exhaust stack 35 feet above grade at a minimum exit velocity of 3000 fpm.

The natural gas fired air tempering inlet heater is rated at 0.76 MMBtu/hr. The tempering air heater is not a direct part of the coating process and contributes no emissions to the coating process.

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)
EU-05	Col-Met Spray Paint Booth Model IB-06-07-05-00	NA	Supra II Mini-Mesh Filters

Table 1 Key:

EU# = Emission Unit Number

PCD = Pollution Control Device

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#	Operational / Production Limit	Air Contaminant	Emission Limit
EU-05	340 GPY Coating	PM	0.1 TPM / 0.1 TPY
		VOC	0.3 TPM / 0.9 TPY
		HAP	0.3 TPM / 0.9 TPY

Table 2 Key:

- EU# = Emission Unit Number
- GPY = Gallons per consecutive 12-month period
- PM = Total Particulate Matter
- VOC = Volatile Organic Compounds
- HAP = Hazardous Air Pollutant
- TPM = tons per month – based on calendar month total
- TPY = 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-05	<ol style="list-style-type: none"> 1. Pressure drop across the exhaust filters (inches w.g.) shall be monitored and recorded each time the spray booth is used and shall not exceed the 50% coated or “Dirty Filter” position which is to be determined each time the multi-ply particulate filters are replaced. 2. Sabco Innovative Plastics shall ensure that the visible emissions from the exhaust stack of the spray booth have 0% opacity.
Facility-wide	<ol style="list-style-type: none"> 3. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.

Table 3	
EU#	Monitoring and Testing Requirements
Facility-wide	4. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13

Table 3 Key:

EU# = Emission Unit Number

w.g. = water gauge

Table 4	
EU#	Record Keeping Requirements
EU-05	<p>1. The Permittee shall maintain records on-site detailing for each day, and summarize monthly:</p> <ul style="list-style-type: none"> a. the amount of each VOC containing coating used; b. the amount of other VOC containing material used; c. the VOC content of each of these paints or other VOC containing materials, in terms of pounds per gallon; and d. the pounds of VOCs emitted. <p>2. The Permittee shall maintain maintenance records of filter pad replacements and disposal.</p>
Facility-wide	<p>3. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. 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 15th 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> <p>4. The Permittee shall maintain records of monitoring and testing as required by Table 3.</p> <p>5. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) approved herein on-site.</p> <p>6. 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.</p>
Facility-wide	7. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s), 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.

Table 4	
EU#	Record Keeping Requirements
Facility-wide	8. The Permittee shall maintain records required by this Plan Approval <i>ON-SITE</i> 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
 SOMP = Standard Operating and Maintenance Procedure
 USEPA = United States Environmental Protection Agency

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 Western Regional Office of MassDEP, BWP Permit Chief by telephone (413) 755-2115, email, Marc.Simpson@state.ma.us or fax (413) 784-1149, 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 the Western Regional Office 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 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
 CMR = Code of Massachusetts Regulations

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-05	1. The spray booth, spray gun(s), and spray cup gun(s) are to be maintained and operated in accordance with the plans submitted with the application (as approved herein).
	2. SABIC Innovative Plastics shall use no more than 340 gallons of coating in the spray booth in any 12 consecutive month period.
	3. The spray booth shall utilize a dry fiber mat filter with two or more layers, with a total thickness of at least 2 inches or an equivalent system determined in writing by MassDEP, and that achieves particulate control efficiency of at least 98% by weight. Filter material shall be disposed in accordance with all applicable MassDEP regulations. The face velocity of air at the filter shall not exceed 200 feet per minute.
	4. For surface preparation, prior to coating, the VOC content of any surface preparation solution shall not exceed 6.5 pounds of VOC per gallon for plastics and 1.67 pounds of VOC per gallon for all other surfaces.
	5. Spray guns shall utilize the following method of spray application and be maintained or operated in accordance with the recommendations of the manufacturer: <ul style="list-style-type: none"> a. High Volume Low Pressure (HVLP) spray application; or b. any other coating application method that achieves a transfer efficiency equivalent to electrostatic or HVLP spray application and is approved by the department in writing.
	6. Spray guns shall be cleaned in a method that: <ul style="list-style-type: none"> a. minimizes solvent evaporation during the cleaning, rinsing and draining operations; b. collect spent solvent in a container with a tight-fitting cover so that it is available for proper disposal or recycling.
	7. Spraying operations shall not be conducted outside of the spray booth.
Facility-wide	8. Sabic Innovative Plastics shall employ all reasonable good housekeeping practices to minimize fugitive VOC emissions from the use of surface preparation products, cleanup solutions and the handling of coatings and any other VOC-containing materials. Sabic shall keep rags used during surface preparations or other solvent cleaning operations, fresh and spent solvent, and any other VOC containing materials in tightly closed containers as much as practical during use and at all times when not being used.

Table 6	
EU#	Special Terms and Conditions
Facility-wide	9. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. The Facility shall not exceed the emission limits and shall comply with approved conditions specified in the prior Plan Approval(s) unless specifically altered by this Plan Approval.

Table 6 Key:

EU# = Emission Unit Number

VOC = Volatile Organic Compounds

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on the Emission Unit 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 (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
EU-05	35 Ft.	1.5 Ft.	50 FPS	60 – 80°F

Note: Due to the HAP emission rate of less than 1 Ton per year, the minimal expected operation of the emission source and the building’s 60 foot roofline it was determined by MassDEP that the exhaust stack shall be allowed to meet the minimum exit height requirements without having to extend beyond the level of the roofline if all other conditions in 310CMR 7.03(16)(i) are met. MassDEP reserves the right to require the facility to extend the stack above the building roof level if the facility violates General Condition A of this permit.

Table 7 Key:

EU# = Emission Unit Number

FPS = Feet per Second

Ft = Feet

°F = Degree 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.

Should you have any questions concerning this Plan Approval, please contact Todd Wheeler by telephone at 413-755-2297, 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.

Marc Simpson
Permit Chief
Bureau of Waste Prevention
Western Region

Date

MS/tw

P:\AirPermits\Sabic LPA 1P12007.doc

ecc: MassDEP/Boston - Yi Tian
MassDEP/WERO - Peter Czapienski