



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

March 13, 2013

Mr. Scott Hansen, Operations Director
INEOS Melamines, LLC
730-B Worcester Street
Springfield, MA 01151

Re: Springfield
Transmittal No.: X253972
Application No.: WE-13-005
Class: OP-3
FMF No.:511019
Air Quality Plan Approval

FINAL APPROVAL

Dear Mr. Hansen:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Waste Prevention, has reviewed your Limited Plan Application ("Application") listed above. This Application concerns the use of a new solvent to make a new resin on existing equipment at your facility located at 730-B Worcester Street in Springfield, 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

The INEOS Melamines, LLC facility ("INEOS") manufactures high-solids-content liquid melamine resins by reacting melamine with formaldehyde and alcohols. These resins are sold to companies that use them as cross linkers in industrial coating systems. The operation consists of storage for virgin raw materials (typically melamine, formalin, methanol, butanol, isobutanol, isopropanol, nitric acid, and sodium hydroxide) and recycle streams, batch reactors and associated hold tanks, batch and batch-continuous filters, blend tanks and product storage tanks, packaging equipment for drums, totes, tank trucks and rail cars, and batch and continuous distillation facilities for recovery of formaldehyde and alcohols.

In this application, INEOS proposes the use of 2-ethylhexanol (2-EHA) to produce a new resin on existing process equipment equipped with existing wet scrubbers for VOC emission control. The solvent is not a hazardous air pollutant (HAP).

This modified process has been previously approved by MassDEP on a trial basis so INEOS could determine if the product could be successfully made and to allow for emission testing which would provide the emission estimate basis for this LPA.

INEOS estimates it will use 100,000 to 200,000 pounds of 2-EHA per year. This raw material will be stored in drums and/or totes in a warehouse and will be pumped to the process from these containers. Bulk storage may be initiated in the future.

The 2-EHA will not be a reactant during the manufacturing process but will be added to the resin as a diluent at the end of the process. The 2-EHA will constitute approximately 20-25% of the finished product with the remainder being resin solids and a low concentration of formaldehyde, as is typical of existing products made on this equipment.

Based on testing completed during a trial batches, the existing scrubber systems are able to remove 2-EHA in the process vessel exhausts at a rate greater than 90% which is the current removal efficiency requirement specified in the existing MassDEP air permits.

The estimated emission rate of 2-EHA per batch is approximately 15.2 pounds before control and 1.60 pounds after control.

Based on the use of 200,000 lb 2-EHA per year as projected in the application, VOC emissions before and after control would be 228 lb and 24 lb respectively. Based on a maximum expected future production of 5 batches/month (60 batches/yr), VOC emissions before and after control would be 913 lb and 96 lb respectively.

This FINAL APPROVAL does not limit the number of batches of this product INEOS may produce.

2. EMISSION UNIT IDENTIFICATION

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

Table 1	
EU #	Description of Emission Unit
081 S003	#1 Kettle w/condenser, vacuum jets / inter-condensers & seal tank, #1 Distillate Receiver, & #1 Hold Tank Stack 087P002
081 S004	#6 Kettle w/condenser, vacuum jets/inter-condensers, #6 Distillate Receiver, #6B Hold Tank Stack 081P012
081 S004b	#7 Kettle, condenser, vacuum jets / inter-condensers, #7 Distillate Receiver Stack 081P012 DE Filter, Filter heel tank, Heel Tote Exhaust..... Stack 081P112
081 S005	#1 Heinkel Filter Centrifuge, Cyclone, Pump Tank, Solids Tank Stack 087P003 #6 Heinkel Filter Centrifuge, Cyclone, Pump Tank, Solids Tank Stack 081P036 #7 Heinkel Filter Centrifuge, Cyclone, Pump Tank, Solids Tank..... Stack 081P035
081 S006	#5 Blend Tank Stack 081P019 #6 Blend Tank Stack 081P020 #7 Blend Tank Stack 081P021 #7 Hold Tank Stack 081P015 #8 Blend Tank Stack 081P019 #9 Blend Tank Stack 081P037 #10 Blend Tank Stack 081P038

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 #	
081 S003 081 S004 081 S004b 081 S005 081 S006	INEOS shall 1. Ensure that each batch of resin produced by this process does not emit more than 1.6 pounds VOC. Use of existing process procedures and emission control devices operated as described in existing MassDEP plan approvals is sufficient to ensure compliance with this requirement.

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
081 S003 081 S004 081 S004b 081 S005 081 S006	INEOS shall 1. Monitor the number of batches of resin produced using 2-EHA as a process step as described herein, and include these process VOC emissions in the facility emission reporting requirements. VOC emissions shall be calculated based on the number of batches multiplied by no less than 1.6 lb VOC per batch.

Table 4	
EU#	Record-keeping Requirements
081 S003 081 S004 081 S004b 081 S005 081 S006	INEOS shall 1. Keep records of the number of batches of resin produced using 2-EHA as a process step as described herein.

Table 5	
EU#	Reporting Requirements
081 S003 081 S004 081 S004b 081 S005 081 S006	INEOS shall 1. 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. Notify the Western Regional Office of MassDEP, BWP Permit Chief by telephone at (413) 755-2115, by email at Marc.Simpson@state.ma.us , or fax at (413) 784-1149 as soon as possible, but no later than three (3) days after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Marc Simpson, Permit Chief at MassDEP within ten (10) 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. Provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.

4. SPECIAL TERMS AND CONDITIONS

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

Table 6	
EU#	Special Terms and Conditions
081 S003 081 S004 081 S004b 081 S005 081 S006	INEOS shall 1. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. INEOS 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. 2. Modify their Air Quality Operating Permit application to include the provisions of this FINAL APPROVAL .

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, if 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. If there are 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.

If you have any questions concerning this Plan Approval, please contact John Kirzec by telephone at (413) 755-2225 or in writing at the letterhead address.

Sincerely,

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

JK/jk
ineos lpa WE-13-005 new solvent 2013-03-13.docx

ecc: Peter Czapienski, WERO
Yi Tian, Boston