



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

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Governor

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Commissioner

**August 9, 2012**

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

**Re: Springfield**  
Transmittal No.: X251732  
Application No.: WE-12-013  
Class: OP-3  
FMF No.:511019  
**Air Quality Plan 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 a Startup/Shutdown/Malfunction Plan for the cooling tower 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.

**DESCRIPTION OF FACILITY AND APPLICATION**

The INEOS Melamines, LLC facility ("INEOS") manufactures high solids 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 the storage for virgin raw materials (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 a Startup, Shutdown, and Malfunction ("SSM") Plan for a new cooling tower as required by the MassDEP Approval for the tower issued March 30, 2012. The SSM specifies procedures INEOS will follow to avert an exceedance as the cooling tower water temperature approaches an exceedance (> 85 °F based on a rolling 12-hour average) and the procedures INEOS will follow in the event of an exceedance of the 24-hour average temperature requirement.

Previously MassDEP approved in December 23, 2004 (Application #1-X-04-047; Transmittal #W058011) the SSM Plan for baghouses and other dust control devices.

**EMISSION UNIT IDENTIFICATION**

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval. Since only parts of the original emission unit 081 S001 are affected by the cooling tower water project, a new emission unit, 081 S001e has been created for the storage tanks that are unaffected by this project, and is listed in Table 1 for reference only.

<b>Table 1</b>			
<b>EU#</b>	<b>Description</b>	<b>Design Capacity</b>	<b>Pollution Control Device</b>
081 S001	<u>Resimene Raw Material: Recycle, Blending &amp; Storage</u> #14 Tank (methanol storage) (stk. TKF T214) # 3 Tank (n-butanol storage) (stk. TKF T320) # 9 Tank (n-butanol storage) (stk. TKF T321) # 5 Tank (CD Distillate; wet butanol storage) (stk. TKF T213) #17 Tank (wet methanol storage) (stk. TKF T211) #18 Tank (wet methanol storage) (stk. TKF T211) #19 Tank (wet methanol storage) (stk. TKF T211) # 7 Tank (CD distillate storage) (stk. TKF T219) #10 Tank (8% butanol storage) (stk. TKF T323)	25,800 gallons 25,800 gallons 25,800 gallons 25,800 gallons 36,800 gallons 22,700 gallons 30,000 gallons 25,800 gallons 15,600 gallons	packed bed scrubbers
081 S001e (not supplied with cooling tower water)	# 1 Tank (isobutanol storage) (stk. TKF T215) # 4 Tank (wet butanol storage) (stk. TKF T220) # 6 Tank (methanol storage) (stk. TKF T323) #16 Tank (wet butanol storage) (stk. TKF T220) #13 Tank (isopropanol storage) (stk. TKF T322)	25,800 gallons 25,800 gallons 4,400 gallons 15,000 gallons 15,000 gallons	packed bed scrubbers
081 S004	<u>#6 Reactor System</u> (stk. 081 P012) #6 Kettle, #6 Distillate Receiver, #6b Hold Tank		condensers, vacuum jets, venturi scrubber, new condenser, & packed bed scrubber
081 S004b	<u>#7 Reactor System</u> (stk. 081 P012) #7 Kettle, #7 Distillate Receiver		condensers, vacuum jets, venturi scrubber, new condenser, & packed bed scrubber
081 S008	<u>Butanol Recovery</u> (stk. 081 P025)		packed bed scrubber

### **APPLICABLE REQUIREMENTS**

1. In addition to the requirements specified in MassDEP Approval #WE-12-004 dated March 30, 2012, INEOS shall ensure that the cooling tower water temperature is alarmed at 85°F on a 12-hour rolling basis, and that, in accordance with the procedures specified in the SSM Plan, INEOS will initiate actions to lower the demand for cooling tower water if this alarm sounds.
2. The cooling tower water temperature is also alarmed at 85°F *on a 24-hour rolling basis*. If this alarm sounds, INEOS has 4 hours to troubleshoot the cooling tower or to make process changes to bring down the temperature. If the High Temperature Alarm condition cannot be corrected within 4 hours, INEOS will initiate actions to either shut down process equipment that uses tower water or switch from tower water to the city water supply.

### **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.

### **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.

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Marc Simpson  
Permit Chief  
Bureau of Waste Prevention  
Western Region

JK/jk  
ineos lpa 2012-08-09-SU-SD-MF plan for newcoolingtower.docx

ecc: Peter Czapienski, WERO  
Yi Tian, Boston