



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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MITT ROMNEY  
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Commissioner

## AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("The Department") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

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**ISSUED TO ["the Permittee"]:**

Solutia Inc.  
730 Worcester Street  
Springfield, MA 01151

**INFORMATION RELIED UPON:**

Application No. : 1-O-95-060  
Transmittal No. : 109627

**FACILITY LOCATION:**

Solutia Inc.  
730 Worcester Street  
Springfield, MA 01151

**FACILITY IDENTIFYING NUMBERS:**

SSEIS ID: 042/0086  
FMF FAC NO.: 298974  
FMF RO NO.: 305464

**NATURE OF BUSINESS:**

Resins, Sealants, Adhesives,  
Plastics, Plastic Film, & Plastic Sheet

**STANDARD INDUSTRIAL CODE:**

Primary-3081 (Secondary-2821, 2869, & 2891)

**RESPONSIBLE OFFICIAL:**

Name: John S. Mayausky  
Title: Plant Manager

**FACILITY CONTACT PERSON:**

Name: Roy Hart  
Title: Supervisor, Env. Protection  
Phone: (413) 730-2682

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This operating permit shall expire on January 26, 2010.  
For the Department of Environmental Protection, Bureau of Waste Prevention

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Michael Gorski  
Regional Director  
Department of Environmental Protection  
Western Regional Office

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Date:



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## SPECIAL CONDITIONS FOR OPERATING PERMIT

### **1. PERMITTED ACTIVITIES**

In accordance with the provisions of 310 CMR 7.00:Appendix C and applicable rules and regulations, the Permittee (hereinafter "Solutia") is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this permit.

### **2. EMISSION UNIT IDENTIFICATION**

See each individual subsection for emission unit identification.

### **3. IDENTIFICATION OF EXEMPT ACTIVITIES**

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

Table 2	
Description of Current Exempt Activities	Reason
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of exempt activities shall be kept on-site at the facility and a copy shall be submitted to the Department's Regional Office.	310 CMR 7.00:Appendix C(5)(h)

### **I. Site-Wide – Emission Unit Identification**

The following emission units are subject to and regulated by this operating permit:

<b>Table 1</b>				
<b>Emission Unit (EU)</b>	<b>Description of Emission Unit</b>	<b>Stack #</b>	<b>EU Design Capacity</b>	<b>Pollution Control Device</b>
Site-Wide	<u>Leak Detection and Repair</u> Valves, pumps, etc.	n/a	n/a	detection & repair
	<u>All vents to atmosphere with opacity</u>	various	various	various or none
	<u>All vents to atmosphere with VOC pollutant emissions</u>	various	various	various or none
	<u>All vents to atmosphere with any pollutant emissions</u>	various	various	various or none

### **I. Site-Wide – Applicable Requirements**

- A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

<b>Table 3</b>				
<b>EU #</b>	<b>Fuel or Raw Material</b>	<b>Pollutant</b>	<b>Emission Limits / Restrictions</b>	<b>Applicable Regulation and/or Approval No.</b>
Site-Wide	various	volatile organic compounds	> 10,000 ppm reading constitutes a leak for subject valves, pumps, process drains, manhole covers, agitators, and flanges. All components that meet the definition of leaking will be repaired in accordance with the Applicable Regulations and/or Approval #.	Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/1989)  Leak Detection and Repair Program Approval (4/14/1987)
Site-Wide	any	opacity	≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour	310 CMR 7.06(1)(b)

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

<b>Table 4</b>	
<b>Emission Unit</b>	<b>Monitoring/Testing Requirements</b>
Site-Wide	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.18(17)(h), upon request of the Department, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(17) for applicable emission units. Testing shall be conducted in accordance with EPA Method 24 and/or Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the Department and EPA.</li> <li>2) In accordance with 310 CMR 7.13 Stack Testing, conduct stack testing, upon written request of the Department, for any air contaminant for which the Department has determined testing is necessary, to ascertain compliance with the Department's regulations or design approval provisos. All such testing shall be conducted in accordance with 310 CMR 7.13 (1) and (2), and in accordance with the applicable procedures specified in 40 CFR 60 Appendix A or other method if approved by the Department and EPA.</li> <li>3) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, unless otherwise specified, for all required continuous monitoring equipment, obtain valid data from the (monitoring equipment) for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>

<b>Table 5</b>	
<b>Emission Unit</b>	<b>Record-keeping Requirements</b>
Site-Wide	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of all monitoring data and supporting information on-site for a period of at least five years from the date of the monitoring sample, measurement, report or initial operating permit application.</li> <li>2) In accordance with 310 CMR 7.12, maintain the records required to determine the nature and amounts of emissions from the facility.</li> <li>3) In accordance with 310 CMR 7.12(3)(b), retain copies of Source Registration and other information supplied to the Department to comply with 310 CMR 7.12 for five years from the date of submittal.</li> </ol>

Table 6	
Emission Unit	Reporting Requirements
Site-Wide	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.12(2), submit a Source Registration/Emission Statement form to the Department on an annual basis.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(10)(c), submit to the Department two compliance summaries (first report due by July 30, 2005), one by January 30 for the time period July – December of the previous calendar year, and the other by July 30 for the time period January – June of the current calendar year. <b>(See Provision 10 in “GENERAL CONDITIONS FOR OPERATING PERMIT”)</b></li> <li>3) In accordance with 310 CMR 7.00 Appendix C(5)(b)9., submit annually (first submittal due January, 2006) a certification that the facility is maintaining the required records to assure the facility is in compliance with the applicable requirements designated in this permit. <b>(See Provision 10 in “GENERAL CONDITIONS FOR OPERATING PERMIT”)</b></li> <li>4) In accordance with 310 CMR 7.00 Appendix C(10)(a), submit to the Department any record relevant to this operating permit or to the emissions of any air contaminant from the facility within 30 days of the request by the Department or EPA.</li> <li>5) In accordance with 310 CMR 7.00 Appendix C(10)(f), the Permittee shall report to the Department's Regional Bureau of Waste Prevention all instances of deviations from permit requirements. <b>(See Provision 25 in “GENERAL CONDITIONS FOR OPERATING PERMIT”)</b></li> <li>6) In accordance with 310 CMR 7.13(1)(d), submit to the Department any stack test results for any air contaminant obtained from stack testing required by the Department within such time as agreed to in the approved test protocol.</li> </ol>

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.***

### **Site-Wide Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in Site-Wide Tables 3, 4, 5, and 6:

- 1) Solutia Inc. has indicated that it is subject to, and complying with, the requirements of 310 CMR 7.16, U Reduction of Single Occupant Commuter Vehicle Use. Solutia Inc. shall continue to comply with 310 CMR 7.16.
- 2) Solutia Inc. has indicated that it is subject to the requirements of 42 U.S.C. 7401, §112(r) Accidental Release Prevention Requirements: Risk Management under Clean Air Act 112(r)(7), and did submit to the USEPA the facility's contingency plan for responding to an accidental releases of regulated substances.

## **II. Powerhouse – Emission Unit Identification**

The following emission units are subject to and regulated by this operating permit:

<b>Table 1 – Powerhouse</b>				
<b>Emission Unit (EU)</b>	<b>Description of Emission Unit</b>	<b>Stack #</b>	<b>EU Design Capacity</b>	<b>Pollution Control Device</b>
<b>Powerhouse</b>	<b>Power &amp; steam production</b>			
150 S01	Boiler #9 – Combustion Engineering Model #27VP-12W burning natural gas or #2 oil	150 P001*	112 MMBtu/hr	none
150 S02	Boiler #10 – Babcock & Wilcox Model EM117 burning natural gas or #2 oil	150 P001*	196 MMBtu/hr	none
150 S03	Boiler #11 – Foster Wheeler Type S Spreader Stoker burning coal	150 P001*	249 MMBtu/hr	overfire air (Foster Wheeler) & baghouse (Carborundum Environmental Systems)

- \* The three emission units share a common steel stack with the following stack parameters:  
Height=196 feet  
Inside diameter=84 inches (7.0 feet)

## II. Powerhouse – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 – Powerhouse					
EU #	Fuel or Raw Material	Pollutant	Emission Limits	Restrictions (rolling 12 month total)	Applicable Regulation and/or Approval No.
150 S01	natural gas or #2 oil	sulfur dioxide	1.2 lb SO <sub>2</sub> /MMBtu (calendar year avg.)		310 CMR 7.22 (Acid Rain)
		particulate matter <sup>1</sup>	0.12 lb/MMBtu		310 CMR 7.02(8)(d) TABLE 4
		nitrogen oxides	0.30 lb/MMBtu	147 tons/year	DEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(4)(a)4.a. Large Boiler <sup>3</sup>
		carbon monoxide	≤ 200 ppmv @3% O <sub>2</sub>		
		sulfur in fuel	0.17 lb S/MMBtu (≈ 0.3% sulfur by wt.)		310 CMR 7.05(1)(a)2.
150 S02	natural gas or #2 oil	sulfur dioxide	1.2 lb SO <sub>2</sub> /MMBtu (calendar year avg.)		310 CMR 7.22 (Acid Rain)
		particulate matter	0.10 lb/MMBtu		DEP Approval PV-76-C-001 (8/6/1976)
		nitrogen oxides	0.40 lb/MMBtu	343 tons/year	DEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(4)(a)4.a. Large Boiler <sup>4</sup>
		carbon monoxide	≤ 200 ppmv @3% O <sub>2</sub>		
		sulfur in fuel	0.17 lb S/MMBtu (≈ 0.3% sulfur by wt.)		310 CMR 7.05(1)(a)2.
150 S03	coal	sulfur dioxide	1.2 lb SO <sub>2</sub> /MMBtu (calendar year avg.)		310 CMR 7.22 (Acid Rain)
		particulate matter	0.027 lb/MMBtu		DEP Approval #PV-83-C-010 (7/27/1984)
		nitrogen oxides	0.525 lb/MMBtu	573 tons/year	DEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(12) Misc. RACT
		carbon monoxide	≤ 200 ppmv @3% O <sub>2</sub>		
		sulfur in fuel	0.55 lb S/MMBtu (rolling 30 day average)		DEP Approval #PV-83-C-010 (7/27/1984)
150 S01 150 S02 150 S03	any	smoke	No. 1 of the Chart no more than 6 minutes during any one hour, at no time to exceed No. 2 of the Chart		310 CMR 7.06(1)(a)

- (1) Particulate matter as measured according to the applicable procedures specified in 40 CFR Part 60 Appendix A, Method 5.
- (2) The lb/hr, ppmv, and lb/MMBtu emission rates are based on a 1-hour block average.
- (3) Large Boilers with heat release rate ≤ 70,000 Btu/hour-ft<sup>3</sup>
- (4) Large Boilers with heat release rate >70,000 Btu/hour-ft<sup>3</sup>



- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4 – Powerhouse	
Emission Unit	Monitoring/Testing Requirements
150 S01 150 S02	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with Regulation 310 CMR 7.04(2)(a), prior to burning oil, equip the boiler stacks with smoke density indicators.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b), monitor sulfur content of each new shipment of oil received. Compliance with % sulfur-in-fuel requirements can be demonstrated through testing (<u>testing certification</u>) or by maintaining a shipping receipt from the fuel supplier (<u>shipping receipt certification</u>).  The <u>testing certification</u> or <u>shipping receipt certification</u> of % sulfur-in-fuel shall document that sulfur testing has been done in accordance with the applicable ASTM test methods D129-95, D1266-91, D1552-95, D2622-92, and D4294-90), or any other method approved by the Department and EPA.</li> </ol>
150 S01 150 S02 150 S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), comply with the NO<sub>x</sub> emission stack testing requirements contained within all applicable sections of 310 CMR 7.19(13), including 310 CMR 7.19(13)(c) "<u>Stack Testing</u>".</li> <li>2) In accordance with 310 CMR 7.04(4)(a), inspect and maintain each boiler in accordance with the manufacturer's recommendations and test each boiler in accordance with the manufacturer's recommendations for efficient operation (consistent with the concurrent requirements to comply with the NO<sub>x</sub> RACT emission limits) at least once each calendar year.</li> </ol>
150 S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-X-04-046 (December 23, 2004), ensure that the annual compliance for NO<sub>x</sub> and CO is finished before the end of each calendar year.</li> <li>2) In accordance with DEP Approval #PV-83-C-010 (7/27/1984), ensure that proximate analysis is performed for all coal shipments off-loaded at the facility.</li> <li>3) In accordance with DEP Approval #PV-83-C-010 (7/27/1984), calibrate, operate, and maintain an opacity monitor meeting Performance Specification 1 of 40 CFR 60; Appendix B.</li> <li>4) In accordance with DEP Approval #PV-83-C-010 (7/27/1984), operate and maintain an alarm system on baghouse to notify operator if bag failure occurs.</li> <li>5) In accordance with 310 CMR 7.00 Appendix C(9)(b), monitor sulfur and ash content of each new shipment of coal received. Compliance with % sulfur-in-fuel and % ash-in-fuel requirements can be demonstrated through testing (<u>testing certification</u>) or by maintaining a shipping receipt from the fuel supplier (<u>shipping receipt certification</u>).  The <u>testing certification</u> or <u>shipping receipt certification</u> of % sulfur-in-fuel and % ash-in-fuel shall document that sulfur and ash testing has been done in accordance with the applicable ASTM test methods (D129-95, D1266-91, D1552-95, D2622-92, and D4294-90 for sulfur; D482-95 for ash), or any other method approved by the Department and EPA.</li> </ol>
Site-Wide	<b>See Site-Wide Testing / Monitoring Requirements</b>

**Table 5 – Powerhouse**

Emission Unit	Record-keeping Requirements
150 S01 150 S02 150 S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.04(4)(a), maintain records of the results of the inspection, maintenance, and annual testing required by this Regulation and shall post these results conspicuously on or near the boiler.</li> <li>2) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), comply with the NOx emission recordkeeping and reporting requirements contained within all applicable sections of 310 CMR 7.19(13), including 310 CMR 7.19(13)(d) "<u>Recordkeeping and Reporting</u>".</li> <li>3) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), perform the same NOx emission recordkeeping and reporting for EU 150 S03 as is required for EU 150 S01 and 150 S02, as specified in the applicable "Regulations".</li> <li>4) In accordance with Regulation 310 CMR 7.04(2)(a) and 310 CMR 7.00 Appendix C(9)(b)2., maintain continuous records of smoke density from smoke density indicators (if burning oil in EUs 150 S02 or 150 S03) or opacity from the opacity monitor on EU 150 S03.</li> </ol>
150 S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., demonstrate compliance for each new shipment of coal received with the % sulfur-in-fuel and % ash-in-fuel requirements specified in 310 CMR 7.05(1)(a)1. and 310 CMR 7.05(3)(c) respectively, by <u>testing certification</u> or <u>shipping receipt certification</u>, either of which must certify the % sulfur-in-fuel and % ash-in-fuel content of the shipment.</li> <li>2) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein.</li> </ol>
Site-Wide	<b>See Site-Wide Record-Keeping Requirements</b>

Table 6 – Powerhouse	
Emission Unit	Reporting Requirements
150 S01 150 S02 150 S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), comply with the NO<sub>x</sub> emission reporting requirements contained within all applicable sections of 310 CMR 7.19(13), including 310 CMR 7.19(13)(d) "Recordkeeping and Reporting".</li> <li>2) In accordance with 310 CMR 7.19(13)(d)9, submit compliance records within 10 days of written request by the Department or USEPA.</li> <li>3) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), perform the same NO<sub>x</sub> emission reporting for EU 150 S03 as is required for EU 150 S01 and 150 S02, as specified in the applicable "Regulations".</li> <li>4) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), <ol style="list-style-type: none"> <li>a) submit a pretest protocol for the required emission test (NO<sub>x</sub> and CO) for review and written Department approval at least 60 days prior to the anticipated date of testing. Include in the pretest protocol a description of sampling point locations, sampling equipment, sampling analytical procedures, and the operating conditions for the required testing, and</li> <li>b) submit the emission test report for the review and written Department approval within 60 days of the completion of the compliance stack testing.</li> </ol> </li> </ol>
150 S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #PV-83-C-010 (7/27/1984), submit quarterly reports of coal shipment sizes and coal analysis.</li> <li>2) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, report to the Department for all particulate monitoring device alarms and/or visual observations as described therein.</li> </ol>
Site-Wide	<b>See Site-Wide Reporting Requirements</b>

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.***

### **Powerhouse Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in Powerhouse Table 3, 4, 5, and 6:

#### **EU 150 S03**

- 1) In accordance with DEP Approval #1-E-94-106 (October 28, 1996) and a Department letter to Solutia dated January 3, 2002, Solutia shall ensure that the #11 boiler operates with its controls set in accordance with the following requirements, except as allowed in Special Provision 2. (below):
  - a. Oxygen Controller Bias: Automatic
  - b. Underfire Air Fan Bias: -2
  - c. Overfire Air Fan Bias: 15
- 2) In accordance with DEP Approval #1-E-94-106 (October 28, 1996), Solutia may operate with boiler controls set different than specified in Special Provision 1 (above) but only after receiving written approval from the Department. A request

for such operation shall be made in writing to the Department and shall include a demonstration that NO<sub>x</sub> and CO will not exceed emission limits established in this approval while operating with the modified control settings.

This demonstration need not entail testing as elaborate as a formal compliance test (submittal and written approval of stack test protocol, notifying the Department of the test dates, Department witnessing of the test, submittal of stack test report, Department review of stack test report and the issuance of correspondence documenting the stack test results) but must follow the applicable procedures established in Appendix A of 40 CFR Part 60.

Solutia may operate with modified boiler control settings for the purpose of making this demonstration, but only for a maximum of 8 hours on any one day and only long enough to document NO<sub>x</sub> and CO emissions in support of a request for modified operation.

Once modified boiler control setting are approved by the Department, Solutia shall conduct the next yearly compliance stack test utilizing these modified control settings.

- 3) In accordance with DEP Approval #PV-83-C-010 (7/27/1984), Solutia shall ensure that fabric filter SOP/SMP procedures are kept at or near the unit. All persons operating or responsible for the operation of the baghouse will sign a statement affirming that they have read and understand the SOP and SMP.
- 4) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, implement the procedures described therein in response to particulate monitoring device alarms and/or visual observations.
- 5) Emission units 150 S01, 150 S02, & 150 S03 will be subject to the requirements 40 CFR 63 Subpart DDDDD including the sections of the General Provisions referenced in Table 10 of that Subpart. Solutia Inc. shall comply with all applicable Subpart DDDDD provisions in accordance with the applicable timelines. Initial notification of applicability must be submitted to USEPA by March 12, 2005.

### III. South Butvar – Emission Unit Identification

The following emission units are subject to and regulated by this operating permit:

Table 1 – South Butvar				
Emission Unit (EU)	Description of Emission Unit	Stack #	EU Design Capacity	Pollution Control Device
<b>South Butvar</b>	<b><u>Manufacturing of polyvinyl butyral resin</u></b>			
142 S01	Vinyl Acetate Distillation & Storage Refined Vinyl Acetate Storage Tank	142 P636	5,000 gallons	chilled condenser
142 S02	Polymerization of Vinyl Acetate Polymerization Reactor #1 Polymerization Reactor #2	142 P662 142 P663	— gallons — gallons	chilled condenser chilled condenser
142 S03	Dissolving & Storage of Polyvinyl Acetate Butvar Gelva Storage Tank #1 Butvar Gelva Storage Tank #2 Butvar Gelva pre-dissolver	142 P630 142 P631 142 P629	— gallons — gallons — gallons	water cooled condenser water cooled condenser none
142 S04	<u>React Polyvinyl Acetate to Polyvinyl Butyral</u> Hydrolysis Reactor #1 Hydrolysis Reactor #2 Hydrolysis Reactor #3 Hydrolysis Reactor #4 PVA Slurry Tank #1 PVA Slurry Tank #2 PVA Slurry Tank #3 Butyraldehyde Head Tank Acetal Reactor #1 Acetal Reactor #2 Acetal Reactor #3 Acetal Varnish Storage Tank #1 Acetal Varnish Storage Tank #2	142 P656 142 P657 142 P658 142 P813 142 P625 142 P654 142 P655 142 P649 142 P652 142 P653 142 P814 142 P626 142 P627	— gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons	chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser chilled condenser
142 S05	<u>Resin Washing &amp; Stabilization</u> Wash Tank #1 Wash Tank #2 Stabilization Tank #1 Stabilization Tank #2 Stabilization Tank #3 Stabilization Tank #4 CC-Tank Recycle Tank	142 P650 142 P651 142 P646 142 P647 142 P648 142 P815 142 P634 142 P628	— gallons — gallons — gallons — gallons — gallons — gallons — gallons — gallons	none none none none none none none none
142 S06	<u>Resin Drying</u> Tube Drier	140 P619	—	baghouse, packed bed scrubber, & biofilter

**III. South Butvar – Emission Unit Identification** (continued)

<b>Table 1 – South Butvar</b> (continued)				
<b>Emission Unit (EU)</b>	<b>Description of Emission Unit</b>	<b>Stack #</b>	<b>EU Design Capacity</b>	<b>Pollution Control Device</b>
<b>South Butvar</b>	<b><u>Manufacturing of polyvinyl butyral resin</u></b>			
142 S07	Resin Transfer, Storage & Blending			
	Off-Grade Hopper	114 P398	—	cyclone/baghouse
	Blender	114 P399	—	cyclone/baghouse
	Blender Transfer	114 P400		cyclone/baghouse
	Resin conveying	140 P620		cyclone/baghouse
	Resin conveying	140 P623		cyclone/baghouse
	Resin conveying	140 P816		cyclone/baghouse
	Resin conveying	140 P817		cyclone/baghouse
	Resin conveying	114 P396		cyclone/baghouse
142 S08	<u>Recovery Area Storage</u>			
	A-Crude Storage Tank #1	TP7 T602	10,000 gallons	chilled condenser
	A-Crude Storage Tank #2	TP7 T625	30,000 gallons	chilled condenser
	A-Crude Storage Tank #3	TP7 T626	30,000 gallons	chilled condenser
	B-Crude Storage Tank #1	TP7 T603	50,000 gallons	chilled condenser
	B-Crude Storage Tank #2	TP7 T604	50,000 gallons	chilled condenser
	A-Alcohol Storage Tank	TP7 T605	30,000 gallons	chilled condenser
	B-Alcohol Storage Tank #1	TP7 T608	30,000 gallons	chilled condenser
	B-Alcohol Storage Tank #2	TP7 T609	30,000 gallons	chilled condenser
	B-Heads Storage Tank	TP7 T614	10,000 gallons	chilled condenser
	Bulk Ethyl Acetate Storage Tank	TP6 T600	150,000 gallons	chilled condenser
	Ethyl Acetate Day Tank	TP7 T610	10,000 gallons	chilled condenser
	Ethyl Acetate Off-Grade Storage Tank	TP7 T627	30,000 gallons	chilled condenser
	Butyraldehyde Storage Tank	TP7 T607	35,000 gallons	chilled condenser
	Ethanol (SD-29) Storage Tank	TP7 T601	75,000 gallons	chilled condenser
142 S09	<u>Tank Pit 5 Ethyl Acetate Storage</u>			
	TP5 (west) Ethyl Acetate Storage Tank	TP5 T616	100,000 gallons	chilled condenser
142 S10	<u>Distillation Column for Recovery of Reactant</u>			
	B-Column	142 P640	—	chilled condenser
142 S11	<u>Distillation Column</u>			
	D-Column	142 P638	—	packed bed scrubber & biofilter
142 S12	<u>Distillation Columns: Solvent/Byproduct Recovery</u>			
	PE-Column	142 P214	—	none
	C-Column	142 P639	—	none
	A-Column	142 P641	—	none
142 S13	<u>Ethyl Acetate Loading</u>			
	Ethyl Acetate Loading – Dock 7	TP7 P622		none
	Ethyl Acetate Loading – Dock 9	TP7 P624		
142 S14	<u>Filtration of Polyvinyl Butyral Solution</u>			
	Three (3) Plate & Frame Filter Presses	142 P826		none
142 S15	<u>Raw Material Storage Tank</u>			
	Storage Tank – Inhibited Vinyl Acetate	TP5 T051	200,000 gallons	packed bed scrubber & chilled condenser

### III. South Butvar – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3a – South Butvar				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
142S01	monomer	volatile organic compounds	Coolant supply temp. $\leq 36^{\circ}\text{F}$ . If EU 142SO2 is operating with cooling tower water condensation, coolant supply temp. $\leq 29^{\circ}\text{F}$	DEP RACT Approval (6/20/1989); 310 CMR 7.18(17) DEP Approval Trans. #46118 (1/15/1993; amended 2/19/1993) DEP Approval #1-P-96-054 (12/20/1996)
142S02	monomer	volatile organic compounds	Coolant supply temp. $\leq 36^{\circ}\text{F}$ , or may operate with cooling tower water condensation Oct. 1–April 30 inclusive	DEP RACT Approval (6/20/1989); 310 CMR 7.18(17) DEP Approval Trans. #46118 (1/15/1993; amended 2/19/1993) DEP Approval #1-P-96-054 (12/20/1996)
142S03	polymer, solvent	volatile organic compounds	Cooling water supply temperature $< 95^{\circ}\text{F}$ .	DEP RACT Approval (6/20/1989); 310 CMR 7.18(17)
142S04	polymer, solvent, reactant	volatile organic compounds	Coolant supply temp. $\leq 36^{\circ}\text{F}$ . If EU 142SO2 is operating with cooling tower water condensation, coolant supply temp. $\leq 29^{\circ}\text{F}$	DEP RACT Approval (6/20/1989); 310 CMR 7.18(17) DEP Approval #PV-87-IF-023 DEP Approval Trans. #46118 (1/15/1993 amended 2/19/1993) DEP Approval #1-P-96-054 (12/20/1996)
142S05	polymer, water	volatile organic compounds	None	DEP RACT Approval (6/20/1989); 310 CMR 7.18(17)
142S06	polymer	volatile organic compounds,  particulate matter	$\geq 95\%$ scrubber efficiency (alone) for ethanol $\geq 70\%$ scrubber efficiency (alone) for ethyl acetate & butyraldehyde $\geq 85\%$ reduction by scrubber & biofilter	DEP RACT Approval (6/20/1989); 310 CMR 7.18(17) DEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987) DEP Approval #1-P-92-006 (5/26/1992) DEP Approval #1-P-01-068 (12/19/2001) DEP Approval #1-P-03-008 (3/25/2003)
142S07	polymer	particulate matter	No visible emissions	DEP Approvals #PV-75-IF-012 (2/5/1976), #PV-76-IF-005 (11/1/1976), #PV-79-IF-005 (4/20/1979), and #PV-79-IF-015 (10/5/1979)
142S08	solvents	volatile organic compounds	Coolant supply temp. $\leq 36^{\circ}\text{F}$ . If EU 142SO2 is operating with cooling tower water condensation, coolant supply temp. $\leq 29^{\circ}\text{F}$	DEP RACT Approval (6/20/1989); 310 CMR 7.18 (17) DEP Approval Trans. #46118 (1/15/1993 amended 2/19/1993) DEP Approval #1-P-96-054 (12/20/1996)
142 S09	off-grade ethyl acetate	volatile organic compounds	circulating coolant temperature $\leq 30^{\circ}\text{F}$	DEP Approval #1-P-02-002 (4/2/2002)

<b>Table 3b – South Butvar</b>				
<b>EU #</b>	<b>Fuel or Raw Material</b>	<b>Pollutant</b>	<b>Emission Limits / Restrictions</b>	<b>Applicable Regulation and/or Approval No.</b>
142S10	reactant	volatile organic compounds	Coolant supply temp. $\leq 36^{\circ}\text{F}$ . If EU 142SO2 is operating with cooling tower water condensation, coolant supply temp. $\leq 29^{\circ}\text{F}$	DEP Approval Trans.#46118 (1/15/1993 amended 2/19/1993) DEP Approval #1-P-96-054 (12/20/1996)
142S11	solvent	volatile organic compounds	$\geq 95\%$ scrubber efficiency (alone) for ethanol $\geq 70\%$ scrubber efficiency (alone) for ethyl acetate & butyraldehyde $\geq 85\%$ reduction by scrubber & biofilter	DEP Approval PV-85-IF-012 (10/29/1985; amended 8/25/1987) DEP approval #1-P-92-006 (5/26/1992) Transmittal #46119 (12/18/1992; amended 10/8/1993) DEP Approval #1-P-03-008 (3/25/2003)
142S12	solvent	volatile organic compounds	None	DEP RACT Approval (6/20/1989)
142S13	solvent	volatile organic compounds	None	DEP RACT Approval (6/20/1989)
142S14	solvent	volatile organic compounds	None	DEP RACT Approval (6/20/1989)
142 S15	solvent	volatile organic compounds	scrubber water flow $\geq 5.0$ gpm (or other water flow demonstrated to give $\geq 90\%$ scrubbing efficiency)	DEP Approval Trans. #50851 (10/30/1992)



- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4a – South Butvar	
Emission Unit	Monitoring/Testing Requirements
142S01 142S02 142S04 142S08 142S10	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46118 (1/15/1993), operate and maintain an alarm system that will give an audible and visual indication to the control room operator whenever the circulating coolant temperature measured at the chiller inlet is &gt; 40°F. The control room operator will take immediate corrective action if the circulating coolant temperature taken at the chiller inlet is &gt; 40°F.</li> <li>2) In accordance with DEP Approval Trans. #46118 (1/15/1993; amended 2/19/1993), operate and maintain a no-flow alarm system for the circulating coolant supply flow. The alarm must give an audible and visual indication to the control room operator of a no-flow condition.</li> <li>3) In accordance with DEP Approval Trans. #46118 (1/15/1993), install flow monitoring devices on each condenser to allow for measurement of circulating coolant flow through each condenser.</li> <li>4) In accordance with DEP Approval Trans. #46118 (1/15/1993) and 310 CMR 7.00 Appendix C (9)(b)(2), monitor the circulating coolant flow through each condenser at least once per calendar month, and adjust the flow as needed to achieve the flows documented in DEP Approvals #PV-86-IF-004 (4/29/1986) and #PV-87-IF-023 (3/22/1988).</li> <li>5) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, operate the circulating coolant temperature alarm system <del>, and ammonia tank level</del> at all times the South Butvar process is operating, except for periods of calibration checks, zero and span adjustments, preventive maintenance, and malfunction(s).</li> </ol> <p>Solutia shall ensure that the alarm system is operational <del>(before and after)</del> for at least 75% of the process operating hours per calendar day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments, and preventive maintenance.</p>
142S06 142S11	<p>Solutia shall, <u>if operating under DEP RACT Approval (6/20/1989), DEP Approval # PV-85-IF-012 (10/29/1985; amended 8/25/1987), and 310 CMR 7.18(17).</u></p> <ol style="list-style-type: none"> <li>1) Continuously monitor and record the scrubber water flow.</li> <li>2) Operate and maintain an alarm system that will give an audible and visual indication to the control room operator whenever the scrubber water flow ≤ 180 gpm.</li> <li>3) Test the scrubber water flow alarm for proper operation at least once per calendar month.</li> <li>4) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, operate the scrubber water flow monitor at all times the scrubber is operating, except for periods of calibration checks, zero and span adjustments, preventive maintenance, and malfunction(s).</li> </ol> <p>Solutia shall obtain valid data from this monitor for at least 75% of the process operating hours per calendar day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments, and preventive maintenance.</p>

**Table 4b – South Butvar**

Emission Unit	Monitoring/Testing Requirements
142S06 142S11	<p>Solutia shall, if operating under DEP Approval #1-P-92-006 (5/26/1992).</p> <ol style="list-style-type: none"> <li>1) Monitor the inlet flow to each cell of the biofilter at least once per calendar month to ensure the flow is <math>\leq</math> 8670 acfm.</li> <li>2) Monitor at least once per calendar month the pressure drop across each biofilter cell.</li> <li>3) Monitor, at least once per calendar year, the active depth of compost in any cell of the biofilter, as indicated by the permanent rulers on the biofilter walls to ensure depth does not decrease to less than 2 feet 11 inches, unless the DEP approves of a change in writing.</li> <li>4) Conduct performance tests, as detailed below, whenever the biomedica in any cell is completely replaced. <ol style="list-style-type: none"> <li>a. Smoke test the biofilter air distribution system prior to placement of compost material and provide advance notice of this test to the Department.</li> <li>b. Perform two sets of tests to determine the flow distribution and VOC destruction efficiency; the first within 10 days after startup and the second within 10 days after the end of the debugging / acclimation period. Testing shall minimally entail sampling for flow and VOC concentration at no fewer than three points at the outlet of each cell, with concurrent sampling for flow and VOC concentration at the scrubber inlet and biofilter inlet.</li> <li>c. Submit the original field data sheets from the test no later than one business day following data generation, and submit summarized results for Department review no later than 21 days thereafter.</li> </ol> </li> <li>5) In accordance with DEP Approval #1-P-03-008 (3/25/2003), ensure that annual testing (at least once per calendar year) of VOC destruction efficiency of the biofilter is conducted, unless another time period is granted by the Department in writing. <p>The testing shall utilize EPA Method 25A and be conducted as described in Appendix C of the SOP/SMP Manual. At least 15 sample points on the biofilter surface should be monitored during each testing event.</p> </li> <li>6) In accordance with DEP Approval #1-P-03-008 (3/25/2003), ensure that annual testing (at least once per calendar year) of the biofilter compost for moisture content is performed. Samples from at least three points on the biofilter should be analyzed utilizing Method 2540G from <u>Standard Methods for Examination of Water and Wastewater</u>, APHA-AWWA-WPCF, 17<sup>th</sup> Edition, 1989 (or equivalent).</li> <li>7) In accordance with DEP Approval #1-P-03-008 (3/25/2003), ensure that annual testing (at least once per calendar year) of the biofilter compost for pH is performed. Samples from at least three points on the biofilter should be analyzed utilizing Method 9045 from <u>Test Methods for Evaluating Solid Waste: Physical / Chemical Methods</u>, EPA SW-846, 1986 (or equivalent).</li> <li>8) In accordance with DEP Approval #1-P-03-008 (3/25/2003), ensure that annual testing (at least once per calendar year) of the biofilter compost for organic content is performed. Samples from at least three points on the biofilter should be analyzed utilizing Method 2540G from <u>Standard Methods for Examination of Water and Wastewater</u>, APHA-AWWA-WPCF, 17<sup>th</sup> Edition, 1989 (or equivalent).</li> </ol>

Table 4c – South Butvar	
Emission Unit	Monitoring/Testing Requirements
142S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with the 310 CMR 7.18(17) and the DEP RACT Approval (6/20/1989), continuously monitor and record the cooling water supply temperature.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, operate the cooling water supply temperature monitor <del>, and ammonia tank level</del> at all times during process operation, except for periods of calibration checks, zero and span adjustments, preventive maintenance, and malfunction(s).</li> </ol> <p>Solutia shall obtain valid data from this monitor <del>(before and after)</del> for at least 75% of the process operating hours per calendar day, 75% of the operating hours per calendar month, and <u>90</u><del>5</del>% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments, and preventive maintenance.</p>
142S07	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C (9)(b)(2) and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, monitor exhaust stacks for excess particulate emissions utilizing the monitoring devices/procedures described therein.</li> </ol>
142 S09	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-02-002 (4/2/2002), verify proper operation of the flow switch (or equivalent flow monitoring device) at least once per calendar month.</li> <li>2) In accordance with DEP Approval #1-P-02-002 (4/2/2002), Solutia shall ensure, by means of a flow switch (or equivalent), that coolant is flowing to the ethyl acetate tank condenser when the tank is first placed in service and continuously thereafter while the tank is in service, except for periods of calibration checks, zero and span adjustments, preventive maintenance, and malfunction(s). No transfers of material into the storage tank are to occur during these periods. The ethyl acetate tank will be considered in service whenever the tank contains ethyl acetate.</li> <li>3) In accordance with DEP Approval #1-P-02-002 (4/2/2002), monitor and record, at least once per calendar month, the circulating coolant supply temperature while the ethyl acetate tank is in service.</li> <li>4) In accordance with DEP Approval #1-P-02-002 (4/2/2002), verify at least once per calendar month, through the use of a flow switch or equivalent flow monitoring device, that circulating coolant is being supplied to the condenser whenever the ethyl acetate tank is in service.</li> <li>5) In accordance with DEP Approval #1-P-02-002 (4/2/2002), install a leak detection system and alarm system to notify facility staff when a condenser leak occurs.</li> </ol>

Table 4d – South Butvar	
Emission Unit	Monitoring/Testing Requirements
142 S15	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #50851 (10/30/1992) and 310 CMR 7.00 Appendix C(9)(b)2, continuously monitor and record the water flow to the scrubber to ensure it is <math>\geq 5.0</math> gpm (or the optimized water flow rate yielding <math>\geq 90\%</math> scrubbing efficiency) during loading operations.</li> <li>2) In accordance with DEP Approval Trans. #50851 (10/30/1992), ensure that the water flow alarm for the scrubber is set to activate when water flow is <math>&lt; \frac{1}{2}</math> of the optimized scrubber water flow rate (the flow rate that results in <math>\geq 90\%</math> removal efficiency).</li> <li>3) In accordance with DEP Source 51 Approval (4/15/1976) and 310 CMR 7.00 Appendix C(b)(2), monitor and record the circulating coolant supply temperature at least once per calendar month.</li> <li>4) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, operate the water flow monitor <del>and ammonia tank level</del> at all times during loadings operation, except for periods of calibration checks, zero and span adjustments, preventive maintenance, and malfunction(s).</li> </ol> <p>Solutia shall obtain valid data from the water flow monitor <del>(before and after)</del> for at least 75% of the process operating hours per calendar day, 75% of the operating hours per calendar month, and <u>90</u><del>95</del>% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments, and preventive maintenance.</p>
all applicable components in VOC service	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP RACT Leak Detection and Repair Program Approval (4/14/1987), DEP RACT Approval (6/20/1989), and 310 CMR 7.00 Appendix C(9)(b)2., implement leak detection and repair procedures according to the "Standards of Performance for New Stationary Sources; Synthetic Organic Chemical Manufacturing Industry; Equipment Leaks of VOC" dated October 13, 1983 for all applicable components in VOC service. In cases where the specific equipment components with the potential to leak VOC from this process are not addressed in this document, the CTG document "Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment" dated March 1984 and past Departmental policy will serve to determine what procedures will be implemented, except that the more frequent leak checking intervals and quicker repair turnarounds specified in the former document will apply.</li> </ol>
Site-Wide	See Site-Wide Testing / Monitoring Requirements

**Table 5a – South Butvar**

Emission Unit	Record-keeping Requirements
142S01 142S02 142S04 142S08 142S10	<p>Solutia shall:</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. # 46118 (1/15/1993), maintain monthly logs of the circulating coolant flows.</li> <li>2) In accordance with DEP Approval Trans. # 46118 (1/15/1993), maintain logs of hours when the alarm system was not operational while the process was operating.</li> <li>3) In accordance with DEP Approval Trans. # 46118 (1/15/1993; amended 2/19/1993), maintain a log of all alarms, the date, time, and cause of the alarm, corrective measures taken, and when the chiller was operating normally again.</li> </ol>
142S06 142S11	<p>Solutia shall, if operating under DEP RACT Approval (6/20/1989), DEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), and 310 CMR 7.18(17),</p> <ol style="list-style-type: none"> <li>1) maintain a log for each scrubber alarm, the date, time, and cause of the alarm, corrective measures taken, and when the scrubber was operating normally again. Additionally Solutia shall submit to the Department documentation of the amounts of VOCs emitted while uncontrolled and preventive maintenance schedule to avoid similar failures thereafter.</li> <li>2) maintain logs of scrubber water flows.</li> </ol> <p>Solutia shall, if operating under DEP Approval #1-P-92-006 (5/26/1992),</p> <ol style="list-style-type: none"> <li>3) In accordance with DEP Approval #1-P-03-008 (3/25/2003), maintain records of the following:               <ol style="list-style-type: none"> <li>a. all test data and all results of tests performed on the biofilter,</li> <li>b. all monitoring performed, including flows, pressure drops, and compost bed depth.</li> <li>c. all calibrations performed on flow and pressure drop instrumentation.</li> </ol> </li> </ol>
142S03	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with the DEP RACT Approval (6/20/1989), continuously record the cooling tower water supply temperature.</li> <li>2) In accordance with the DEP RACT Approval (6/20/1989) and 310 CMR 7.00 Appendix C(10)(b), maintain records of cooling tower water supply temperature monitor downtime.</li> </ol>
142S07	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C (10)(b) and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein.</li> </ol>
142 S09	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-02-002 (4/2/2002), maintain monthly records documenting flow switch operation.</li> <li>2) In accordance with DEP Approval #1-P-02-002 (4/2/2002) and 310 CMR 7.00 Appendix C(10)(b), maintain monthly records of circulating coolant temperature.</li> <li>3) In accordance with DEP Approval #1-P-02-002 (4/2/2002) and 310 CMR 7.00 Appendix C(10)(b), maintain monthly records of circulating coolant flow.</li> </ol>

Table 5b – South Butvar	
Emission Unit	Record-keeping Requirements
142S15	Solutia shall 1) In accordance with DEP Approval Trans. #50851 (10/30/1992) and 310 CMR 7.00 Appendix C(10)(b), maintain records of scrubber water flow, scrubber water low-flow alarms, circulating coolant temperature, and water flow monitor downtime.
all applicable components in VOC service	Solutia shall 1) In accordance with DEP RACT Leak Detection and Repair Program Approval (4/14/1987), DEP RACT Approval (6/20/1989), and 310 CMR 7.00 Appendix C(9)(b)2., submit a report each calendar quarter (Jan. - March, April-June, July-Sept., and Oct.-Dec.) by the end of the month following the end of the calendar quarter summarizing the leak detection and repair results.
Site-Wide	See Site-Wide Record-Keeping Requirements

Table 6 – South Butvar	
Emission Unit	Reporting Requirements
142S01 142S02 142S04 142S08 142S10	Solutia shall 1) In accordance with DEP Approval Trans. #46118 (1/15/1993; amended 3/25/1997 & 3/25/1997) and #PV-87-IF-023 (3/22/1988), prepare and maintain "in-house" monthly reports by the 15 <sup>th</sup> day of the following month of any alarm event(s), reasons for the alarm(s), and corrective action taken in response to the alarm(s).
142S07	Solutia shall 1) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, report to the Department for all particulate monitoring device alarms and/or visual observations as described therein.
Site-Wide	See Site-Wide Reporting Requirements

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.***

### **South Butvar Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in South Butvar Table 3, 4, 5, and 6:

#### **EUs 142S01, 142S02, 142S04, 142S08, and 142S10**

- 1) In accordance with DEP Approval Trans. #46118 (1/15/1993) and #PV-87-IF-023 (3/22/1988), Solutia shall test the high temperature and no flow alarms monthly.
- 2) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., Solutia shall operate and maintain the condensers in accordance with the manufacturer's recommendations or in accordance with other written procedures in order to ensure that they are operate at their design heat transfer efficiency.

**EUs 142S06, 142S11**

If operating under DEP RACT Approval (6/20/1989), DEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), and 310 CMR 7.18(17),

- 3) Solutia shall ensure that the scrubber operates with liquor recirculation only if emission tests demonstrate that the design scrubbing efficiencies for each VOC will be maintained and the modified operation is approved by the DEP in writing.
- 4) Solutia shall ensure that the scrubber achieves the design efficiencies (specified in the October 29, 1985 Plan Approval) for every three-hour operating interval. In order to assure that the design efficiencies are being maintained, the water feed valve on the scrubber shall be locked in a position so that a flow rate of  $\geq 215$  gpm is supplied to the scrubber, and the scrubber shall be alarmed at a flow of  $\leq 180$  gpm.
- 5) Solutia shall ensure that the scrubber maintains its rated VOC removal efficiency by following standard operating procedures (SOP) and standard maintenance procedures (SMP), that have been specifically developed for this scrubber. The SOP and SMP shall be permanently maintained in the control room.

If operating under DEP Approval #1-P-92-006 (5/26/1992),

- 6) In accordance with DEP Approval #1-P-01-068 (12/19/2001), Solutia shall ensure that total flow to any one cell of the biofilter shall be  $\leq 8670$  ACFM at all times.

If flow exceeds this value, Solutia shall correct the situation within 1 business day of discovery, or otherwise shutdown the biofilter (with the existing permit option to revert to VOC control via the scrubber alone) as expeditiously as possible in order to correct the problem.

- 7) Solutia shall ensure that the compost bed depth is  $\geq 2$  feet 11 inches at all times. (The design depth of the bed is 3 feet 3 inches.)

If the compost bed depth is outside this range, Solutia shall correct the situation within 5 business days of discovery, or otherwise shutdown the Biofilter (with the existing permit option to revert to VOC control via the scrubber alone) as expeditiously as possible in order to correct the problem.

- 8) In accordance with DEP Approval #1-P-03-008 (3/25/2003), Solutia shall ensure that annual calibration (at least once per calendar year) of the flow and pressure drop indicators is performed, in accordance with the manufacturer's recommendations.

**EU 142S004**

- 9) In accordance with the DEP RACT Approval (June 20, 1989), Solutia shall ensure that the hydrolysis reactors are equipped with properly functioning mechanical seals.

**EU 142S07**

- 10) In accordance with 310 CMR 7.00 Appendix C(9)(b)2. and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, implement the procedures described therein in response to particulate monitoring device alarms and/or visual observations.

**EU 142 S09**

- 11) In accordance with DEP Approval #1-P-02-002 (4/2/2002), Solutia shall ensure that any leaks that occur are repaired in a timely manner.

**EU 142S15**

- 12) In accordance with DEP Approval Trans. #50851 (10/30/1992), Solutia shall ensure, as much as is practical, that all scheduled maintenance activities for the scrubber that necessitates reverting to the DEP RACT Approval (6/20/1989) permit conditions for that emission vent are only performed during the non-ozone months; that is between September 15<sup>th</sup> and May 1<sup>st</sup>. Any scheduled routine maintenance of this type that must occur during the "ozone season" must be authorized by the Department in writing.

**EUs 142S05, 142S12, 142S13, and 142S14**

- 13) In accordance with the DEP RACT Approval (June 20, 1989), there are no controls or restrictions for these emission units under the DEP RACT Approval (6/20/1989).

**Process-Wide**

- 14) The emission units in the South Butvar process are subject to the requirements of 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart. Solutia Inc. shall comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines. The final compliance date for 40 CFR 63 Subpart FFFF is 11/10/2006.



#### IV. Resimenes – Emission Unit Identification

The following emission units are subject to and regulated by this operating permit:

Table 1 – Resimenes				
Emission Unit (EU)	Description of Emission Unit	Stack #	EU Design Capacity	Pollution Control Device
<b>Resimenes</b>	<b><u>Manufacturing of melamine-formaldehyde resins</u></b>			
081 S001	Resimene Raw Material: Recycle, Blending & Storage # 1 Tank (methanol storage) #14 Tank (methanol storage) # 3 Tank (n-butanol storage) # 9 Tank (n-butanol storage) # 5 Tank (CD Distillate; wet butanol storage) #17 Tank (wet methanol storage) #18 Tank (wet methanol storage) #19 Tank (wet methanol storage) # 4 Tank (wet butanol storage) #16 Tank (wet butanol storage) # 7 Tank (CD distillate storage) # 6 Tank (methanol distillate storage) #10 Tank (8% butanol storage)	TFK T215 TFK T214 TFK T320 TFK T321 TFK T213 TFK T211 TFK T211 TFK T211 TFK T220 TFK T220 TFK T219 TFK T323 TFK T323	25,800 gallons 28,100 gallons 25,800 gallons 25,800 gallons 25,800 gallons 36,800 gallons 22,700 gallons 30,000 gallons 25,800 gallons 15,000 gallons 25,800 gallons 4,400 gallons 15,600 gallons	packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber
081 S001b	#21 Tank (methanol storage) #24 Tank (methanol storage)	TFK T224 TFK T225	30,000 gallons 30,000 gallons	vapor return; cons. vent vapor return; cons. vent
081 S001c	#22 Tank (formaldehyde solution) #23 Tank (formaldehyde solution)	TFK T226 TFK T227	35,000 gallons 80,000 gallons	packed tower scrubber packed tower scrubber
081 S001d	Formaldehyde loading	TFK P001		vapor return; scrubber
081 S002	<u>Resimene Melamine Transfer &amp; Storage</u> Bulk Melamine Silo #1 Kettle, Melamine Blower, Baghouse, & Weigh Hopper #6 Kettle, Melamine Blower, Baghouse, & Weigh Hopper	081 P030 087 P001 081 P011	7,500 ft <sup>3</sup>	cyclone & fabric filter cyclone & fabric filter cyclone & fabric filter
081 S003	<u>#1 Reactor System</u> #1 Kettle, #1 Distillate Receiver, & #1 Hold Tank	087 P002		condensers, vacuum jets, and scrubber
081 S004	<u>#6 Reactor System</u> #6 Kettle, #6 Distillate Receiver, #6b Hold Tank, #7 Kettle	081 P012		condensers, vacuum jets, venturi scrubber, packed bed scrubber
081 S005	<u>Heinkel Filter System</u> #1 Heinkel Filter Centrifuge, Cyclone, Pump Tank, Solids Tank #6 Heinkel Filter Centrifuge, Cyclone, Pump Tank, Solids Tank #7 Heinkel Filter Centrifuge, Cyclone, Pump Tank, Solids Tank	087 P003 081 P036 081 P035		packed bed scrubber packed bed scrubber packed bed scrubber
081 S006	<u>Resimene Product Blending &amp; Storage Tanks</u> #5 Blend Tank #6 Blend Tank #7 Hold Tank #8 Blend Tank #9 Blend Tank #10 Blend Tank	081 P019 081 P020 081 P015 081 P019 081 P037 081 P038	15,000 gallons 15,000 gallons 8,300 gallons 14,000 gallons 24,500 gallons 24,500 gallons	packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber packed bed scrubber
081 S007	<u>Resimene Formaldehyde Recovery</u> Distillation Column, Condenser, Reflux Drum, Day Tank, & Deacidifiers	081 P023	36,000 gallons	packed bed scrubber
081 S008	<u>Butanol Recovery</u> Distillation Column, Still Pots, Condenser, Phase Separator, Reflux Drum & Wet Receiver	081 P025		packed bed scrubber

#### IV. Resimenes – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3a – Resimenes				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
081 S001	solvents & liquid/solid resins	volatile organic compounds	scrubber efficiency $\geq 90\%$	DEP Approval Trans. #8292 (10/9/92) Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/89)
081 S001b	solvents & liquid/solid resins	volatile organic compounds	vapor recovery control efficiency $\geq 90\%$	DEP Approval 1-P-95-078 (11/17/95)
081 S001c	solvents & liquid/solid resins	volatile organic compounds	scrubber efficiency $\geq 95\%$	DEP Approval 1-P-96-039 (8/23/96; amended 7/28/98) 40 CFR Part 60, Subpart Kb
081 S001d	solvents & liquid/solid resins	volatile organic compounds	scrubber efficiency $\geq 95\%$	Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/89) DEP Communication (5/15/1991)
081 S002	solvents & liquid/solid resins	particulate matter	baghouse/cyclone efficiency $\geq 99\%$	DEP Approval #PV-87-IF-011 (11/30/87)
081 S003	solvents & liquid/solid resins	volatile organic compounds	packed bed scrubber efficiency $\geq 93\%$  organic HAP emissions for the batch cycle reduced by $\geq 83\%$	DEP Approval #PV-87-IF-011 (11/30/87) DEP Approval #1-P-95-063 (10/5/95)  40 CFR Part 63.1406(a)(2)ii (Subpart OOO; Amino/Phenolic Resins)
081 S004	solvents & liquid/solid resins	volatile organic compounds	packed bed scrubber efficiency $\geq 93\%$ or $\leq 0.010$ lb/hr formaldehyde; $\leq 0.030$ lb/hr butanol; $\leq 0.010$ lb/hr methanol, whichever is less restrictive  organic HAP emissions for the batch cycle reduced by $\geq 83\%$	DEP Approval # 1-P-04-029 (9/14/2004; amended 10/18/2004) DEP Approval #1-P-93-031 (3/11/94 & 9/12/00)  40 CFR Part 63.1406(a)(2)ii (Subpart OOO; Amino/Phenolic Resins)

<b>Table 3b – Resimenes</b>				
<b>EU #</b>	<b>Fuel or Raw Material</b>	<b>Pollutant</b>	<b>Emission Limits / Restrictions</b>	<b>Applicable Regulation and/or Approval No.</b>
081 S005	solvents & liquid/solid resins	volatile organic compounds	scrubber efficiency $\geq 90\%$  organic HAP emissions for the batch cycle reduced by $\geq 62\%$	DEP Approval #1-P-95-018 (10/5/95) DEP Approval #PV-86-IF-009 (8/11/86) DEP Approval # 1-P-87-IF-009 (7/30/87) DEP Approval #1-P-88-007 (8/17/88)  40 CFR Part 63.1407(a)(3)ii (Subpart OOO; Amino/Phenolic Resins)
081 S006	solvents and liquid/solid resins	volatile organic compounds	scrubber efficiency $\geq 90\%$	DEP Approval Trans. #8292 (10/9/92)  Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/89)  DEP Approval #PV-78-IF-004 (5/26/78) DEP Approval #PV-87-IF-009 (7/30/87)
081 S007	solvents and liquid/solid resins	volatile organic compounds	$\geq 2.1$ gpm flow to the packed bed scrubber outlet concentration $\leq 23$ ppm formaldehyde	DEP Approval #PV-79-IF-009 (6/27/79)
081 S008	solvents and liquid/solid resins	volatile organic compounds	scrubber efficiency $\geq 90\%$  organic HAP emissions for the batch cycle reduced by $\geq 62\%$	DEP Approval Trans. #8292 (10/9/92) DEP Approval #1-P-95-016 (7/13/95) Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/89)  40 CFR Part 63.1407(a)(3)ii (Subpart OOO; Amino/Phenolic Resins)

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4a – Resimenes	
Emission Unit	Monitoring/Testing Requirements
081 S001 081 S006 081 S008	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #8292 (10/9/1992), operate and maintain a low/no flow alarm system that will trigger at no less than <math>\frac{1}{2}</math> of the optimized scrubber water flow rate (the flow rate that results in <math>\geq 90\%</math> removal efficiency for non-hydrophobic hydrocarbons)..</li> <li>2) Test the scrubber water flow alarm for proper operation at least once per calendar month.</li> <li>3) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, ensure the scrubber water low/no flow alarm is operating at all times the scrubber is operating, except for periods of calibration checks, zero and span adjustments, preventive maintenance, and malfunction(s).</li> </ol> <p>Solutia shall obtain valid data from the low/no flow alarm monitor for at least 75% of the process operating hours per calendar day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments, and preventive maintenance.</p>
081 S001b	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., verify at least annually that signs are present at the loading rack(s) indicating that the vapor recovery system must be used by all trucks/rail cars unloading product. This monitoring may be performed concurrently with the leak detection and repair performed at these emission units.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., monitor tank trucks/rail cars that are unloading organic materials to ensure they have current leak testing markings/signage indicating they have been leak tested in accordance with applicable leak testing requirements.</li> </ol>
081 S001c	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-96-039 (8/23/1996), continuously monitor water flow to the scrubber.</li> <li>2) In accordance with DEP Approval #1-P-96-039 (8/23/1996), set the water flow alarm for the scrubber to activate when water flow is less than <math>\frac{1}{2}</math> of the optimized scrubber water flow rate (the flow rate that results in <math>\geq 95\%</math> removal efficiency).</li> <li>3) Solutia shall obtain valid data from the scrubber flow monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance."</li> </ol>
081 S001d	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with letters to DEP (8/26/1994 &amp; 5/15/1991) and 310 CMR 7.00 Appendix C(9)(b)2., continuously monitor water flow to the scrubber to ensure it is maintained at <math>9 \pm 2</math> gpm when the truck loading operations are being performed.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b), obtain valid data from the scrubber flow monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> <li>3) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., monitor tank trucks before loading begins to ensure that they have been leak checked within the last year.</li> </ol>

<b>Table 4b – Resimenes</b>	
<b>Emission Unit</b>	<b>Monitoring/Testing Requirements</b>
081 S002	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #PV-87-IF-011 (11/30/1987), 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, monitor the baghouse stack for excess particulate emissions utilizing the monitoring devices/procedures described therein.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b), obtain valid data from the monitoring equipment for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
081 S003	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-95-063 (10/5/1995) and 40 CFR Part 63.1415 (Subpart OOO; Amino/Phenolic Resins), continuously monitor the water flow to the scrubber.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b), obtain valid data from the monitoring equipment for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
081 S004	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-93-031 (3/11/1994 &amp; 9/12/2000), 310 CMR 7.00 Appendix C(9)(b)2., and 40 CFR Part 63.1415 (Subpart OOO; Amino/Phenolic Resins), continuously monitor the water flow to the packed column scrubber.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b), obtain valid data from the scrubber flow monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
081 S005	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-95-018 (10/5/1995), 310 CMR 7.00 Appendix C(9)(b)2., and 40 CFR Part 63.1415 (Subpart OOO; Amino/Phenolic Resins), continuously monitor the water flow to each of the three scrubbers.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b), obtain valid data from the scrubber flow monitors for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
081 S007	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #PV-79-IF-009 (7/27/1979) and 310 CMR 7.00 Appendix C(9)(b)2., monitor water flow to the packed bed scrubber at least once per calendar day to ensure it is maintained at <math>\geq 2.1</math> gpm.</li> </ol>

<b>Table 4c – Resimenes</b>	
<b>Emission Unit</b>	<b>Monitoring/Testing Requirements</b>
081 S008	<b>Solutia shall</b> <b>1)</b> In accordance with 40 CFR Part 63.1415 (Subpart OOO; Amino/Phenolic Resins), continuously monitor the water flow to the scrubber.
all applicable components in HAP service	<b>Solutia shall</b> <b>1)</b> In accordance with 40 CFR Part 63.1410 (Subpart OOO; Equipment leak provisions), monitor for leaks by complying with the requirements of 40 CFR part 63, subpart UU (national emission standards for equipment leaks) for all equipment, as defined under §63.1402, that contains or contacts 5 weight-percent HAP or greater and operates 300 hours per year or more.
all applicable components in VOC service	<b>Solutia shall</b> <b>1)</b> In accordance with DEP RACT Leak Detection and Repair Program Approval (4/14/1987), DEP RACT Approval (6/20/1989), and 310 CMR 7.00 Appendix C(9)(b)2., implement leak detection and repair procedures according to the "Standards of Performance for New Stationary Sources; Synthetic Organic Chemical Manufacturing Industry; Equipment Leaks of VOC" dated October 13, 1983 for all applicable components in VOC service. In cases where the specific equipment components with the potential to leak VOC from this process are not addressed in this document, the CTG document "Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment" dated March 1984 and past Departmental policy will serve to determine what procedures will be implemented, except that the more frequent leak checking intervals and quicker repair turnarounds specified in the former document will apply.
Site-Wide	<b>See Site-Wide Testing/Monitoring Requirements</b>

**Table 5a – Resimenes**

<b>Emission Unit</b>	<b>Record-keeping Requirements</b>
081 S001 081 S006 081 S008	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #8292 (10/9/1992) and 310 CMR 7.00 Appendix C(10)(b), maintain a record of all scrubber low/no flow alarms and make this log available to the Department upon request.</li> <li>2) In accordance with DEP Approval Trans. #8292 (10/9/1992) and 310 CMR 7.00 Appendix C(10)(b), maintain a record of all scrubber alarm downtime and make this log available to the Department upon request.</li> </ol>
081 S001b	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records of the presence of signs at the loading rack(s) indicating that the vapor recovery system must be used by all trucks/rail cars unloading product. This recordkeeping may be part of the leak detection and repair recordkeeping performed at these emission units.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records (a checklist is acceptable) for each tank truck/rail car unloading operation indicating that the tank truck/rail car has current leak-test markings/signage indicating it has been leak tested in accordance with applicable leak testing requirements.</li> </ol>
081 S001c	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-96-039 (8/23/1996), maintain a record of all scrubber low/no flow alarms and make this log available to the Department upon request.</li> <li>2) In accordance with 40 CFR Part 60 Subpart Kb §60.110b(a) and §60.116b(b), keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.</li> <li>3) In accordance with 40 CFR Part 60 Subpart Kb §60.116b(c), maintain a record of the volatile organic liquid ("VOL") stored, the period of storage, and the maximum true vapor pressure of the VOL.</li> </ol>
081 S001d	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records of water flow to the scrubber during all truck loading operations, and make this record available to the Department upon request.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records (a checklist is acceptable) for each tank truck loading operation indicating that the tank truck has current leak-test markings/signage indicating it has been leak tested in accordance with applicable leak testing requirements.</li> </ol>
081 S002	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #PV-87-IF-011 (11/30/1987), 310 CMR 7.00 Appendix C(9)(d), and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein.</li> </ol>
081 S003	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-95-063 (10/5/1995), maintain a record of all scrubber low flow alarms and make this log available to the Department upon request.</li> </ol>
081 S004	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-93-031 (3/11/1994 &amp; 9/12/2000) and 310 CMR 7.00 Appendix C(9)(d), maintain a record of all packed column low/no flow alarms, and make this log available to the Department upon request.</li> </ol>

<b>Table 5b – Resimenes</b>	
<b>Emission Unit</b>	<b>Record-keeping Requirements</b>
081 S005	Solutia shall 1) In accordance with DEP Approval #1-P-95-018 (10/5/1995) and 310 CMR 7.00 Appendix C(9)(d), maintain a record of all scrubber low flow alarms and make this log available to the Department upon request.
081 S007	Solutia shall 1) In accordance with DEP Approval #PV-79-IF-009 and 310 CMR 7.00 Appendix C(9)(d), maintain records of the daily flow readings for the packed bed scrubber.
081 S003 081 S004 081 S005 081 S008	Solutia shall 1) In accordance with 40 CFR 63.1416 (Subpart OOO; Amino/Phenolic Resins), comply with the recordkeeping requirements therein.
all	Solutia shall 1) In accordance with 40 CFR Part 63.1038 (Subpart UU; Leak Detection), maintain records as specified therein.
Site-Wide	<b>See Site-Wide Record-Keeping Requirements</b>



Table 6 – Resimenes	
Emission Unit	Reporting Requirements
081 S003 081 S004 081 S005 081 S008	Solutia shall 1) In accordance with 40 CFR 63.1417 (Subpart OOO; Amino/Phenolic Resins), submit semi-annual compliance reports to the Department as required therein.
081 S002	Solutia shall 1) In accordance with 310 CMR 7.00 Appendix C(9)(b)2. and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, report to the Department for all particulate monitoring device alarms and/or visual observations as described therein.
all applicable components in HAP service	Solutia shall 1) In accordance with 40 CFR Part 63.1039 (Subpart UU; Leak Detection), submit reports to the Department as required therein.
Site-Wide	See Site-Wide Reporting Requirements

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. **All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.**

### **Resimenes Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in Resimenes Table 3, 4, 5, and 6:

#### **EU 081 S001, 081 S006, and 081 S008**

- 1) In accordance with DEP Approval Trans. #8292 (10/9/1992), set the water flow to the scrubber at no less than  $\frac{1}{2}$  of the optimized water flow (the flow rate that results in  $\geq 90\%$  removal efficiency for non-hydrophobic hydrocarbons).
- 2) In accordance with DEP Approval Transmittal #8292 (10/9/1992), ensure that all scheduled maintenance activities for the scrubber that necessitates reverting to the DEP RACT Approval (6/20/1989) permit conditions for that emission vent are only performed during the non-ozone months (October 1 through April 30). Any scheduled routine maintenance of this type that must occur during May 1 through September 30 must be approved beforehand by the Department in writing.

#### **EU 081 S001b**

- 1) In accordance with DEP Approval #1-P-95-078 (11/17/1995), post conspicuous signs at the unloading rack specifying that a properly operating and leak tight vapor recovery system must be used by all trucks/rail cars unloading product.
- 2) In accordance with DEP Approval #1-P-95-078 (11/17/1995) and 310 CMR 7.00 Appendix C(9)(b)2., not permit any truck/rail car to unload product at the loading rack unless it has current leak testing markings/signage indicating it has been leak tested in accordance with applicable leak testing requirements.

- 3) In accordance with DEP Approval #1-P-95-078 (11/17/1995), include all potential sources of leaks from the vapor return system in a Leak Detection and Repair (LDAR) program.

**EU 081 S002**

- 1) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, implement the procedures described therein in response to particulate monitoring device alarms and/or visual observations.

**EU 081 S003**

- 1) In accordance with DEP Approval #1-P-95-063 (10/5/1995), operate the scrubber with an instantaneous water flow rate of no less than 14.0 gpm.
- 2) In accordance with DEP Approval #1-P-95-063 (10/5/1995), set the scrubber low flow alarm to sound if water flow drops to 10 gpm or less.

**EU 081 S004**

- 1) In accordance with DEP Approval #1-P-93-031 (3/11/1994), operate the packed column scrubber with an instantaneous water flow rate of greater than 12 gpm.
- 2) In accordance with DEP Approval #1-P-93-031 (3/11/1994), set the packed column scrubber low flow alarm to sound if water flow drops to 12 gpm or less.

**EU 081 S005**

- 1) In accordance with DEP Approval #1-P-95-018 (10/5/1995), operate each scrubber with an instantaneous water flow rate of  $\geq 1.0$  gpm.
- 2) In accordance with DEP Approval #1-P-95-018 (10/5/1995), set the scrubber low flow alarm to sound if water flow drops to  $<1.0$  gpm.

**EU 081 S003, 081 S004, 081 S005, and 081 S008**

- 1) Emission units 081 S003, 081 S004, 081 S005, and 081 S008 are subject to the requirements of 40 CFR 63.1-15, Subpart A, "General Provisions" [as indicated in Table 5 to Subpart OOO of 40 CFR 63]. Compliance with all applicable provisions therein is required.

**EU 081S001b, 081S001c and 081S001d**

- 1) The emission units 081S001b, 081S001c and 081S001d are subject to the requirements of 40 CFR 63, Subpart EEEE (Organic Liquid Distribution-Non gasoline), including the General Conditions referenced in Table 12 of that Subpart, although no emission limits apply. Final compliance date for Solutia Inc. for 40 CFR 63, Subpart EEEE is 2/5/2007.

**All applicable components in HAP service**

- 1) In accordance with 40 CFR 63.1024 (Subpart UU; Leak Detection), repair leaking components as specified therein.

## V. Saflex – Emission Unit Identification

The following emission units are subject to and regulated by this operating permit:

Table 1 – Saflex				
Emission Unit (EU)	Description of Emission Unit	Stack #	EU Design Capacity	Pollution Control Device
<b>Saflex</b>	<b><u>Manufacturing of polyvinyl butyral sheets</u></b>			
099 S001	<u>Saflex Resin Handling</u> Resin Silo #1 & Box Transfer Blower Resin Silo #2 Resin Silo #3 Resin Silo #4 Resin Silo #5 Resin Silo #6 Resin Silo #7 Resin Collector (box tipper, collector & vacuum blower) E. Resin Surge Hopper & Transfer Blower W. Resin Surge Hopper & Transfer Blower N. Resin Surge Hopper & Transfer Blower S. Resin Surge Hopper & Transfer Blower	099 P054 099 P055 099 P056 099 P057 099 P058 099 P059 099 P060 099 P061 099 P062 099 P063 099 P064 099 P065		fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter fabric filter
099 S002	<u>Saflex E-line Scrap Handling</u> Blower & S. Cyclone for premix blender Edge/Center Trim Granulator, Blower & N. Cyclone for Premix Blender #1 Scrap & C.R. Granulators, BF05/BF06 Blowers & S. Cyclone for Scrap Blender #2 Scrap Granulator, BF07/BF08 Blowers & N. Cyclone for Scrap Blender	091 P007 091 P006  091 P008  091 P066		cyclone cyclone  cyclone  cyclone
099 S003	<u>Saflex PEG Recycle Scrap Handling</u> E. & W. Mixed Scrap Granulators, Blower, & Cyclone #1 N. S. & S.E. Mixed Scrap Granulators, Blower, & Cyclone #2 Customer Return Granulator, Blower, & Cyclone #3 N. or S. or S.E. or E. or W. Granulators, Unit or Trim Blowers, & Box Cyclone	099 P017  099 P018  099 P019  099 P022		cyclone  cyclone  cyclone  cyclone
099 S005a	<u>Saflex Extrusion E-Line</u> Mixers #1 & #2, Coolers #1 & #2, Rework Blender, Premix Blender, Extruder with Vacuum Vent, Vent Condenser, Tank, Vacuum Pump, Die Hood, Normalizer, Brinks Mist Eliminator, & Ducon Wet Scrubber	099 P005 <sup>1</sup>		scrubber
099 S005b	<u>Saflex On-Line SV unit</u>	099 P105		none
099 S006	<u>Saflex Extrusion PEG Line</u> Resin Weigh Case, Rework Blender, Scrap Feeder, Mixers, Cooler, Granulator, Premix Blender, Nauta Feeder, Extruder with Vacuum Vent, Vent Condenser, Catch Tank, Vacuum Pump, & Ducon Wet Scrubber	099 P005 <sup>1</sup>		scrubber

- (1) The scrubber stack tip stands 46 feet above ground level, 10 feet above the scrubber top, and 5 feet above roof level. It has an inside diameter of 30 inches.

## V. Saflex – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 – Saflex				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
099 S001	polyvinyl butyral resin	particulate matter	≥ 99.5% control	DEP Approval #1-P-89-114 (5/7/90)
099 S002	polyvinyl butyral scrap plastic sheet	particulate matter	≥ 99.8% control for particles ≥ 50 µm	DEP Approval #PV-83-IF-002 (3/7/83)
099 S003	polyvinyl butyral scrap plastic sheet	particulate matter	≥ 99.8% control for particles ≥ 50 µm ≥ 99.5% control	DEP Approval #PV-83-IF-003 (3/17/83) DEP Approval #1-P-89-114 (5/7/90)
099 S005a	polyvinyl butyral resin & plasticizers	volatile organic compounds	≥ 85% VOC control ≥ 300 gallons/minute water flow	DEP Approval #PV-88-IF-004 (5/20/88) DEP RACT Approval (6/20/89) DEP Approval #1-P-93-007 (4/16/93)
099 S005b	polyvinyl butyral plastic sheet	volatile organic compounds	≤ 4.9 tpy from SV process exhaust	DEP Approval #1-P-01-007 (4/24/01)
099 S006	polyvinyl butyral resin & plasticizers	volatile organic compounds	≥ 85% VOC control ≥ 300 gallons/minute water flow	DEP Approval #PV-88-IF-004 (5/20/88) DEP Approval #1-P-92-016 (6/25/92) DEP Approval #1-P-93-007 (4/16/93)

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4 – Saflex	
Emission Unit	Monitoring/Testing Requirements
099 S001	Solutia shall 1) In accordance with DEP Approval #1-P-89-114 (5/7/90), 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, monitor the stacks for excess particulate emissions utilizing the monitoring devices/procedures described therein.
099 S002	Solutia shall 1) In accordance with DEP Approval #PV-83-IF-002 (3/7/83), 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, monitor the stack for excess particulate emissions utilizing the monitoring devices/procedures described therein whenever the Saflex® E-Line scrap handling equipment is in operation.
099 S003	Solutia shall 1) In accordance with DEP Approval #PV-83-IF-003 (3/7/83), 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, monitor the stack for excess particulate emissions utilizing the monitoring devices/procedures described therein whenever the Saflex® PEG Recycle Scrap Handling equipment is in operation.
099 S005a 099 S006	Solutia shall 1) In accordance with DEP Approval PV-88-IF-004 (5/20/88), continuously monitor the scrubber water flow to ensure $\geq 300$ gallon per minute, or $\geq$ the value at which the compliance test, verifying 85% VOC removal efficiency, was performed.  2) In accordance with DEP Approval PV-88-IF-004 (5/20/88), continuously monitor the scrubber water flow and alarm at 270 gpm or at 90% of the flow rate at which the compliance test, verifying 85% VOC removal efficiency, was performed.  3) In accordance with DEP Approval PV-88-IF-004 (5/20/88), test the scrubber low flow alarm for proper operation at least once per calendar month, and maintain a log of the test results.  4) In accordance with 310 CMR 7.00 Appendix C(9)(b), obtain valid data from the water flow monitor and data logging system for at least 75% of the operating hours per calendar day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments, and preventive maintenance.
099 S005b	Solutia shall 1) In accordance with DEP Approval 1-P-01-007 (4/24/01), monitor material throughput to ensure that VOC emissions do not exceed 4.9 tons per year (rolling 12-month total).
Site-Wide	See Site-Wide Testing/Monitoring Requirements

Table 5 – Saflex	
Emission Unit	Record-keeping Requirements
099 S001	Solutia shall 1) In accordance with DEP Approval #1-P-89-114 (5/7/90), 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein.
099 S002	Solutia shall 1) In accordance with DEP Approval #PV-83-IF-002 (3/7/83), 310 CMR 7.00 Appendix C(9)(b), and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein whenever the Saflex® E-Line scrap handling equipment is in operation.
099 S003	Solutia shall 1) In accordance with DEP Approval #PV-83-IF-003 (3/7/83), 310 CMR 7.00 Appendix C(9)(b), and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein whenever the Saflex® PEG Recycle Scrap Handling equipment is in operation.
099 S005a 099 S006	Solutia shall 1) In accordance with DEP Approval PV-88-IF-004 (5/20/88), maintain a log of all scrubber low flow alarms documenting minimally the date, time, cause of the alarm, the corrective measures taken, and when the scrubber was operating normally again.  2) In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of water flow monitor downtime in order to verify compliance with the data capture requirements required herein.
099 S005b	Solutia shall 1) In accordance with DEP Approval 1-P-01-007 (4/24/01), maintain records of material throughput on a monthly basis to ensure that VOC emissions do not exceed 4.9 tons per year (rolling 12-month total).
Site-Wide	See Site-Wide Record-Keeping Requirements

Table 6 – Saflex	
Emission Unit	Reporting Requirements
099 S001 099 S002 099 S003	Solutia shall 1) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, report to the Department for all particulate monitoring device alarms and/or visual observations as described therein.
Site-Wide	See Site-Wide Reporting Requirements

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. **All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.**

**Saflex Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in Saflex Table 3, 4, 5, and 6:

- 1) In accordance with DEP Approval PV-88-IF-004 (5/20/88), Solutia Inc. shall have available at the scrubber control room an up-to-date copy of the "Standard Operating and Maintenance Procedure" (SOMP) for the scrubber which documents how the scrubber efficiency is to be maintained at design specifications.
- 2) In accordance with DEP Approval PV-88-IF-004 (5/20/88), Solutia Inc. shall ensure that the SOMP for the scrubber is adhered to.

**EU 099 S002**

- 3) In accordance with DEP Approval 1-P-03-007 (3/11/03), Solutia Inc. is allowed to process on the polyvinyl butyral E-Line (extrusion line) up to 100% polyvinyl butyral resin originating from the South Butvar (solvent based) process.

**EU 099 S001, 099 S002, 099 S003**

- 4) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, implement the procedures described therein in response to particulate monitoring device alarms and/or visual observations.

## VI. RB-9100 – Emission Unit Identification

The following emission units are subject to and regulated by this operating permit:

Table 1 – RB-9100				
Emission Unit (EU)	Description of Emission Unit	Stack #	EU Design Capacity	Pollution Control Device
<b>RB-9100</b>	<b><i>Manufacturing of polyvinyl butyral resin</i></b>			
092 S01	RB-9100 Process Vents Pre-Mix Weigh tank, Butyraldehyde Weigh Tank, 2 Acetal Reactors, Resin Wash Tank, Neutralization Tank, & SLG tank	092 P001		Heat Transfer Systems, Inc., scrubber
092 S02	<u>Butyraldehyde Storage Tanks</u> #1 Storage Tank #2 Storage Tank	092 T005 092 T006	30,000 gallons 30,000 gallons	conservation vents & vapor balance
092 S03	<u>Raw Material &amp; Product Transfer, Storage, &amp; Blending</u> Polyvinyl Alcohol Unloading Collector  Polyvinyl Alcohol Storage (3 silos) / Blender Polyvinyl Alcohol Weigh Hopper  Polyvinyl Butyral Storage Silo (5000 ft. <sup>3</sup> ) Polyvinyl Butyral Storage Silo (5000 ft. <sup>3</sup> ) Polyvinyl Butyral Storage Silo (5000 ft. <sup>3</sup> ) Polyvinyl Butyral Storage Silo (5000 ft. <sup>3</sup> ) Polyvinyl Butyral Storage Silo (5000 ft. <sup>3</sup> ) Polyvinyl Butyral Storage Silo (5000 ft. <sup>3</sup> )  Polyvinyl Alcohol Dissolver  Crushed Resin Collector  Packout Hopper (2000 ft. <sup>3</sup> )	092 P003  092 P004 092 P013  092 P007 092 P008 092 P009 092 P010 092 P011 092 P012  092 P014  092 P015  092 P016		Mikro-Pulsaire Model 42-8-22 C; 1500 acfm  Mikro-Pulsaire Model 42-8-100 B; 2400 acfm  Six (6) Mikro-Pulsaire Model 31-8-100 C; 1320 acfm each  Mikro-Pulsaire Model 19-8-220 C; 900 acfm  Mikro-Pulsaire, Model 19-8-130 C; 600 acfm  Mikro-Pulsaire Model 31-8-230 B; 1320 acfm
092 S04	<u>Product Transfer, Storage, &amp; Blending</u> Polyvinyl Butyral Bulk Blender Product Storage Silo #7 Product Storage Silo #8	092 026 092 027 092 028		Three (3) MAC Vent Filters Model 96AVR21
092 S05	<u>Resin Drying</u> Dryer	092 002		Ducon spray scrubber



## VI. RB-9100 – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 – RB-9100				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
092 S01 <sup>1</sup>	volatile organic compounds & resins	volatile organic compounds & butyraldehyde	≤ 90% VOC control	DEP Approval #1-P-99-020 (8/2/1999) DEP Approval #PV-85-IF-010 (1/16/1985)
092 S02	butyraldehyde	volatile organic compounds & butyraldehyde	≥ 90% VOC control over each unloading operation	DEP Approval #PV-85-IF-010 (1/16/1985)
092 S03	resins	particulate matter	≥ 99.5% particulate control; ≤ 0.02 gr/ACF outlet loading	DEP Approval #PV-85-IF-010 (1/16/1985)
092 S04	resins	particulate matter	≥ 99.9% particulate control ≤ 0.47 lb/hr	DEP Approval #1-P-90-045 (7/12/1990)
092 S05	resins	particulate matter	≥ 99% particulate control ≤ 0.0003 gr/ACF; ≤ 0.05 pounds/hour	DEP Approval #PV-85-IF-010 (1/16/1985) DEP Approval #1-P-99-020 (8/2/1999)

(1) Stack parameters:  
height = 150 foot (95 feet above the tallest part of the building structure)  
internal diameter = 24 inches

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

<b>Table 4 – RB-9100</b>	
<b>Emission Unit</b>	<b>Monitoring/Testing Requirements</b>
092 S01	Solutia shall <b>1)</b> In accordance with DEP Approval #1-P-99-020 (8/2/1999), monitor the vent scrubber water flow rate to ensure it is maintained at $\geq 35$ gallons per minute during normal process operations.
092 S02	Solutia shall <b>1)</b> In accordance with 310 CMR 7.00 Appendix C(9)(b)2., check the integrity of the vapor recovery system (excluding the truck/rail car component) no less frequently than quarterly, by performing leak detection and repair on any system components with the potential to leak VOC, including gaskets, lines, and connections, to ensure that 90% VOC control is being attained from any loading operation of the butyraldehyde storage tanks. <b>2)</b> In accordance with 310 CMR 7.00 Appendix C(9)(b)2., monitor tank trucks/rail cars that are unloading organic materials to ensure they have current leak testing markings/signage indicating they have been leak tested in accordance with applicable leak testing requirements.
092 S03 092 S04	Solutia shall <b>1)</b> In accordance with DEP Approval #PV-85-IF-010 (1/16/1985), 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, monitor the baghouse stacks for excess particulate emissions utilizing the monitoring devices/procedures described therein. <b>2)</b> In accordance with 310 CMR 7.00 Appendix C(9)(b)2, ensure that the baghouse alarm system is operational at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.
092 S05	Solutia shall <b>1)</b> In accordance with DEP Approval #1-P-99-020 (8/2/1999), monitor the Ducon scrubber water flow rate to ensure it is maintained at $\geq 29$ gallons per minute during normal process operations. <b>2)</b> In accordance with 310 CMR 7.00 Appendix C(9)(b)2, obtain valid data from the Ducon scrubber flow monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance
all applicable components in VOC service	Solutia shall <b>1)</b> In accordance with DEP Approval #PV-85-IF-010 (1/16/1985; amended 9/17/1987), implement leak detection and repair procedures according to the "Standards of Performance for New Stationary Sources; Synthetic Organic Chemical Manufacturing Industry; Equipment Leaks of VOC" dated October 13, 1983. In cases where the specific equipment components with the potential to leak VOC from this process are not addressed in this document, the CTG document "Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment" dated March 1984 and past Departmental policy will serve to determine what procedures will be implemented, except that the more frequent leak checking intervals and quicker repair turnarounds specified in the former document will apply, except as follows: <p style="margin-left: 40px;">Solutia shall perform leak monitoring on a quarterly basis unless more than 1% of the equipment components leak. If the leak rate for any one quarter exceeds 1%, then monthly monitoring must be performed until three consecutive months achieve a 1% or less leak rate. Solutia can revert to quarterly monitoring once three consecutive months show a leak rate of 1% or less.</p>
Site-Wide	<b>See Site-Wide Testing/Monitoring Requirements</b>

<b>Table 5 – RB-9100</b>	
<b>Emission Unit</b>	<b>Record-keeping Requirements</b>
092 S01	Solutia shall 1) In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of the vent scrubber water flow rate, measured at least once per block hour.
092 S02	Solutia shall 1) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., maintain records of the quarterly checks of the vapor recovery system integrity.  2) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records (a checklist is acceptable) for each tank truck/rail car un loading operation indicating that the tank truck/rail car has current leak-test markings/signage indicating it has been leak tested in accordance with applicable leak testing requirements.
092 S03 092 S04	Solutia shall 1) In accordance with 310 CMR 7.00 Appendix C(9)(d) and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfuction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein.
092 S05	Solutia shall 1) In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of the Ducon scrubber water flow rate, measured at least once per block hour.
Site-Wide	<b>See Site-Wide Record-Keeping Requirements</b>

<b>Table 6 – RB-9100</b>	
<b>Emission Unit</b>	<b>Reporting Requirements</b>
092 S03 092 S04	Solutia shall 1) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfuction Abatement Plan, report to the Department for all particulate monitoring device alarms and/or visual observations as described therein.
Site-Wide	<b>See Site-Wide Reporting Requirements</b>

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.***

**RB-9100 Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in RB-9100 Table 3, 4, 5, and 6:

**Process-Wide**

- 1) In accordance with DEP Approval #1-P-89-020 (June 28, 1989), Solutia Inc. shall submit to the Department by January 15<sup>th</sup> of each year the results of a literature search regarding the feasibility of validating, either through field testing or through (future) EPA approved modeling, the sewered VOC emissions resulting from this process predicted by Monsanto's model.
- 2) In accordance with DEP Approval #PV-85-IF-010 (January 16, 1986), Solutia Inc. shall perform such field testing or modeling of the sewered VOC emissions from this process as soon as clear regulatory or scientific guidelines become available.
- 3) In accordance with DEP Approval #1-P-89-020 (June 28, 1989), Solutia Inc. shall retrofit this process, and any future addition to this process, with a level of control equivalent to LAER, and provide for offsets, should either field testing or an approved EPA model show in excess of 40 tons per year of VOC emissions from the combined process emission points (process and sewered losses), as required under non-attainment regulations.
- 4) The emission units in the RB9100 process are subject to the requirements of 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart. Solutia Inc. shall comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines, although no emission limits apply. The final compliance date for 40 CFR 63 Subpart FFFF is 11/10/2006.

**EU 3, 4**

- 5) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, implement the procedures described therein in response to particulate monitoring device alarms and/or visual observations.

**VII. GME – Emission Unit Identification**

The following emission units are subject to and regulated by this operating permit:

Table 1 – GME				
Emission Unit (EU)	Description of Emission Unit	Stack #	EU Design Capacity	Pollution Control Device
<b>GME</b>	<b><i>Manufacturing of Gelva Multipolymer Emulsions</i></b>			
121 S01	Polymerization Reactor #3 System			
	PK-3 Reactor	121 P122		water cooled condenser scrubber
	PK-3 Raw Material Weigh Tank	121 P122		
	Reactor Feed Tank	121 P122		

## VII. GME – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 – GME				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
121 S01	vinyl acetate & acrylic monomers <sup>(2)</sup>	volatile organic compounds	scrubber efficiency $\geq 90\%$ for vinyl acetate, methyl acrylate, acetaldehyde, methyl methacrylate, acrylic acid, & butyl acrylate  water-cooled condensers – water supply temp. $\leq 95$ °F water-cooled condensers – control efficiency $\geq 85\%$ <sup>(1)</sup>	DEP Approval Trans. #50849 (November 2, 1992)  Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/1989)

(1) For every batch cycle

(2) Monomers [typical]: vinyl acetate, acrylic acid, ethyl acrylate, methyl acrylate, 2-ethyl hexyl acrylate, butyl acrylate, methyl methacrylate

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4 – GME	
Emission Unit	Monitoring/Testing Requirements
121 S01	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #50849 (11/2/1992), set the water flow alarm for the scrubber to activate when water flow is less than ½ of the optimized scrubber water flow rate (the flow rate that results in ≥ 90% removal efficiency for vinyl acetate, methyl acrylate, acetaldehyde, methyl methacrylate, acrylic acid, &amp; butyl acrylate.</li> <li>2) In accordance with the DEP RACT approval (6/20/1989), monitor and record the condenser tower water supply temperature continuously.</li> <li>3) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, obtain valid data from the scrubber flow monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
all applicable components in VOC service	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP RACT Leak Detection and Repair Program Approval (4/14/1987), DEP RACT Approval (6/20/1989), and 310 CMR 7.00 Appendix C(9)(b)2., implement leak detection and repair procedures according to the "Standards of Performance for New Stationary Sources; Synthetic Organic Chemical Manufacturing Industry; Equipment Leaks of VOC" dated October 13, 1983 for all applicable components in VOC service. In cases where the specific equipment components with the potential to leak VOC from this process are not addressed in this document, the CTG document "Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment" dated March 1984 and past Departmental policy will serve to determine what procedures will be implemented, except that the more frequent leak checking intervals and quicker repair turnarounds specified in the former document will apply.</li> </ol>
Site-Wide	<b>See Site-Wide Testing/Monitoring Requirements</b>

Table 5 – GME	
Emission Unit	Record-keeping Requirements
121 S01	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #50849 (11/2/1992), maintain a record of all scrubber low/no flow alarms and make this log available to the Department upon request.</li> <li>2) In accordance with the DEP RACT approval (6/20/1989), maintain records of the condenser tower water supply temperature.</li> </ol>
Site-Wide	<b>See Site-Wide Record-Keeping Requirements</b>

Table 6 – GME	
Emission Unit	Reporting Requirements
Site-Wide	See Site-Wide Reporting Requirements

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.***

**GME Special Terms and Conditions**  
**Process-Wide**

- 1) The emission units in the GME process are subject to the requirements of 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart. Solutia Inc. shall comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines, although no emission limits apply. The final compliance date for 40 CFR 63 Subpart FFFF is 11/10/2006.



### **VIII. GMS – Emission Unit Identification**

The following emission units are subject to and regulated by this operating permit:

<b>Table 1 – GMS</b>				
<b>Emission Unit (EU)</b>	<b>Description of Emission Unit</b>	<b>Stack #</b>	<b>EU Design Capacity</b>	<b>Pollution Control Device</b>
<b>GMS</b>	<b><u>Manufacturing of Gelva Multipolymer Solutions</u></b>			
117 S01	<u>Polymerization Reactor #7 System</u> PK-7 Reactor PK-7 Monomer Delay PK-7 Cat Make-up PK-7 Cat Delay	117 P027 117 P027 117 P027 117 P027		packed bed scrubber
117 S02	<u>Polymerization Reactor #12 System</u> PK-12 Reactor PK-12 Monomer Delay PK-12 Cat Make-up PK-12 Cat Delay	117 P026 117 P026 117 P026 117 P026		packed bed scrubber
117 S03	<u>Gelva Polymerization Reactor #14 System</u> PK-14 Reactor PK-14 Cat Delay PK-14 Cat Make-up PK-14 Monomer Delay PK-14 Solvent Delay	117 P334 117 P334 117 P334 117 P334 117 P334		packed bed scrubber
117 S04a	<u>GMS Product Storage, Filtration &amp; Packout</u> Storage Tank 7E Storage Tank 7W Storage Tank 12E Storage Tank 12W Storage Tank 14E Storage Tank 14W Drum Packout Fugitives Tank Truck Loading Fugitives Filtration Fugitives	TP2 T038 TP2 T513 TP2 T514 TP2 P039 TP2 P515 TP2 T038 117 P823 117 900 117 P824		none none none none none none none
117 S04b	<u>GMP process line</u> GMP Tank and Packout	117 P905		water cooled cond.
117 S05	<u>Raw Material Storage Tanks</u> Storage Tank – ethyl acrylate Storage Tank – styrene Storage Tank – methyl acrylate Storage Tank – 2-ethyl hexyl acrylate Storage Tank – butyl acrylate Storage Tank – toluene Storage Tank – glacial acrylic acid	TP1 T357 TP1 T136 TP1 T044 TP1 T047 TP1 T144 TP1 T043 TP2 T400	10,000 gallons 10,000 gallons 11,000 gallons 50,000 gallons 50,000 gallons 13,000 gallons 5,500 gallons	cons. vent & vapor rec. cons. vent & vapor rec. cons. vent & vapor rec. cons. vent & vapor rec. cons. vent & vapor rec. cons. vent & vapor rec. cons. vent & vapor rec.
117 S06	<u>Raw Material Storage Tanks</u> Storage Tank – hexane Storage Tank – methyl methacrylate	TP1 T045 TP1 T048	10,000 gallons 10,000 gallons	cons. vent & vapor rec. cons. vent & vapor rec.

### VIII. GMS – Applicable Requirements

A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 – GMS				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
117 S01	see below <sup>(1)</sup>	volatile organic compounds	scrubber efficiency $\geq 90\%$ (except for hydrophobic hydrocarbons such as toluene, styrene, and heptane)  water-cooled condensers – water supply temp. $\leq 95^{\circ}\text{F}$ water-cooled condensers – control efficiency $\geq 85\%^{(2)}$	Regulation 310 CMR 7.02 DEP Approval Trans. #46071 (10/30/1992)  Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/1989)
117 S02	see below <sup>(1)</sup>	volatile organic compounds	scrubber efficiency $\geq 90\%$ (except for hydrophobic hydrocarbons such as toluene, styrene, and heptane)  water-cooled condensers – water supply temp. $\leq 95^{\circ}\text{F}$ water-cooled condensers – control efficiency $\geq 85\%^{(2)}$	Regulation 310 CMR 7.02 DEP Approval Trans. #46173 (10/28/1992)  Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/1989)
117 S03	see below <sup>(1)</sup>	volatile organic compounds	scrubber efficiency $\geq 90\%$ (except for hydrophobic hydrocarbons such as toluene, styrene, and heptane)  water-cooled condensers – water supply temp. $\leq 95^{\circ}\text{F}$ water-cooled condensers – control efficiency $\geq 85\%^{(2)}$	Regulation 310 CMR 7.02 DEP Approval Trans. #46174 (10/28/1992)  Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/1989)
117 S04a	polymer solutions	volatile organic compounds	none (no controls are determined to be RACT)	DEP RACT Approval (6/20/1989)
117 S04b	polymer solutions	volatile organic compounds	$\leq 1,000,000$ pounds production of organic solvent based products (12 month rolling total)  water-cooled condensers – water supply temp. $\leq 95^{\circ}\text{F}$ water-cooled condensers – control efficiency $\geq 85\%^{(2)}$	Regulation 310 CMR 7.02; DEP Approval #1-P-01-011 (4/11/2001)  Regulation 310 CMR 7.18(17) DEP RACT Approval (6/20/1989)
117 S05	solvents & monomers	volatile organic compounds	vapor recovery control efficiency $\geq 90\%$ for working losses	Regulation 310 CMR 7.02; DEP Approval Trans. #52162 (11/6/1992)
117 S06	solvents & monomers	volatile organic compounds	vapor recovery control efficiency $\geq 90\%$	Regulation 310 CMR 7.02; DEP Approval #1-P-93-022 (10/15/1993)

(1) Monomers [typical]: vinyl acetate, acrylic acid, dibutyl maleate, hydroxyl methyl methacrylate, ethyl acrylate, methyl acrylate, 2-ethyl hexyl acrylate, butyl acrylate, methyl methacrylate  
Solvents [typical]: heptane, isopropyl alcohol, ethanol, xylene, kerosene, ethyl acetate, hexane, toluene, styrene

(2) For every batch cycle

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4a – GMS	
Emission Unit	Monitoring/Testing Requirements
117 SO1	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46071 (10/30/1992), set the water flow alarm for the scrubber to activate when water flow is less than ½ of the optimized scrubber water flow rate (the flow rate that results in ≥ 90% removal efficiency for non-hydrophobic hydrocarbons).</li> <li>2) In accordance with 310 CMR 7.18(17) and the DEP RACT approval (6/20/1989), monitor and record the condenser tower water supply temperature continuously.</li> </ol>
117 SO2	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46173 (10/28/1992), set the water flow alarm for the scrubber to activate when water flow is less than ½ of the optimized scrubber water flow rate (the flow rate that results in ≥ 90% removal efficiency for non-hydrophobic hydrocarbons).</li> <li>2) In accordance with 310 CMR 7.18(17) and the DEP RACT approval (6/20/1989), monitor and record the condenser tower water supply temperature continuously.</li> <li>3) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, obtain valid data from the condenser water supply temperature monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
117 SO3	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46174 (10/28/1992), set the water flow alarm for the scrubber to activate when water flow is less than ½ of the optimized scrubber water flow rate (the flow rate that results in ≥ 90% removal efficiency for non-hydrophobic hydrocarbons).</li> <li>2) In accordance with 310 CMR 7.18(17) and the DEP RACT approval (6/20/1989), monitor and record the condenser tower water supply temperature continuously.</li> <li>3) In accordance with 310 CMR 7.00 Appendix C(9)(b)2, obtain valid data from the condenser water supply temperature monitor for at least 75% of the process operating hours per day, 75% of the operating hours per calendar month, and 90% of the operating hours per calendar quarter, except for periods of calibration checks, zero and span adjustments and preventative maintenance.</li> </ol>
117 SO4b	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-01-011 (4/11/2001), monitor pounds of organic solvent based products manufactured each month such that compliance with the 1,000,000 lb/year (12-month rolling total) limit for GMS products can be demonstrated.</li> <li>2) In accordance with DEP Approval #1-P-01-011 (4/11/2001), verify through use of a flow switch or equivalent flow monitoring device that cooling water is being supplied to the formulation tank condenser prior to placing the tank in service.</li> <li>3) In accordance with DEP Approval #1-P-01-011 (4/11/2001), whenever the formulation tank is in service, monitor continuously the cooling water temperature for the formulation tank condenser at the cooling tower water well through the Wonderware system or equivalent.</li> </ol>

<b>Table 4b – GMS</b>	
<b>Emission Unit</b>	<b>Monitoring/Testing Requirements</b>
117 SO5 117 SO6	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., verify at least annually that signs are present at the loading rack(s) indicating that the vapor recovery system must be used by all trucks/rail cars unloading product. This monitoring may be performed concurrently with the leak detection and repair performed at these emission units.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., monitor tank trucks/rail cars that are unloading organic materials to ensure they have current leak testing markings/signage indicating they have been leak tested in accordance with applicable leak testing requirements.</li> </ol>
all applicable components in VOC service	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP RACT Leak Detection and Repair Program Approval (4/14/1987), DEP RACT Approval (6/20/1989), and 310 CMR 7.00 Appendix C(9)(b)2., implement leak detection and repair procedures according to the "Standards of Performance for New Stationary Sources; Synthetic Organic Chemical Manufacturing Industry; Equipment Leaks of VOC" dated October 13, 1983 for all applicable components in VOC service. In cases where the specific equipment components with the potential to leak VOC from this process are not addressed in this document, the CTG document "Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment" dated March 1984 and past Departmental policy will serve to determine what procedures will be implemented, except that the more frequent leak checking intervals and quicker repair turnarounds specified in the former document will apply.</li> </ol>
Site-Wide	<b>See Site-Wide Testing/Monitoring Requirements</b>

<b>Table 5 – GMS</b>	
<b>Emission Unit</b>	<b>Record-keeping Requirements</b>
117 SO1	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46071 (10/30/1992), maintain a record of all scrubber low/no flow alarms and make this log available to the Department upon request.</li> <li>2) In accordance with 310 CMR 7.18(17) and the DEP RACT approval (6/20/1989), maintain records of the condenser water supply temperature.</li> </ol>
117 SO2	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46173 (10/28/1992), maintain a record of all scrubber low/no flow alarms and make this log available to the Department upon request.</li> <li>2) In accordance with 310 CMR 7.18(17) and the DEP RACT approval (6/20/1989), maintain records of the condenser water supply temperature.</li> </ol>
117 SO3	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval Trans. #46174 (10/28/1992), maintain a record of all scrubber low/no flow alarms and make this log available to the Department upon request.</li> <li>2) In accordance with 310 CMR 7.18(17) and the DEP RACT approval (6/20/1989), maintain records of the condenser water supply temperature.</li> </ol>
117 SO4b	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with DEP Approval #1-P-01-011 (4/11/2001), maintain permanent records documenting monthly production.</li> <li>2) In accordance with DEP Approval #1-P-01-011 (4/11/2001), maintain permanent records documenting verification of cooling tower flow and cooling water temperature for the formulation tank.</li> </ol>
117 SO5 117 SO6	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records of the presence of signs at the loading rack(s) indicating that the vapor recovery system must be used by all trucks/rail cars unloading product. This recordkeeping may be part of the leak detection and repair recordkeeping performed at these emission units.</li> <li>2) In accordance with 310 CMR 7.00 Appendix C(9)(d), maintain records (a checklist is acceptable) for each tank truck/rail car unloading operation indicating that the tank truck/rail car has current leak-test markings/signage indicating it has been leak tested in accordance with applicable leak testing requirements.</li> </ol>
Site-Wide	<b>See Site-Wide Record-Keeping Requirements</b>

<b>Table 6 – GMS</b>	
<b>Emission Unit</b>	<b>Reporting Requirements</b>
Site-Wide	<b>See Site-Wide Reporting Requirements</b>

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. **All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.**

**GMS Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in GMS Table 3, 4, 5, and 6:

**EU 117 SO1, 117 SO2, and 117 SO3**

- 1) In accordance with DEP Approvals Trans. #46071 (10/30/1992), Trans. #46173 (10/28/1992), and Trans. #46174 (10/28/1992), Solutia Inc. shall ensure that all scheduled maintenance activities for the scrubber that necessitates reverting to the RACT permit conditions for that emission vent are only performed during the non-ozone months (October 1 through April 30). Any scheduled routine maintenance of this type that must occur during May 1 through September 30 must be approved beforehand by the Department in writing.

**EU 117 SO4b**

- 2) In accordance with DEP Approval #1-P-01-011 (4/11/2001), ensure that cooling tower water is being supplied to the formulation tank condenser whenever the formulation tank is in service through use of a flow switch or equivalent flow monitoring device. Any potential VOC emitting portion of the process shall be stopped if the cooling tower water supply is interrupted. The formulation tank will be considered in service whenever the tank contains material for production or when the tank is undergoing a heated wash cycle.
- 3) In accordance with DEP Approval #1-P-01-011 (4/11/2001), maintain cooling tower water temperature for the formulation tank condenser at or below 95°F whenever the formulation tank is in service as measured at the cooling tower water well through the Wonderware system or equivalent. If the cooling tower water temperature increases above 95°F, any potential VOC emitting portion of the process shall be stopped.

**EU 117 SO5**

- 4) In accordance with DEP Approval Trans. #52162 (11/6/1992), post conspicuous signs at the unloading rack specifying that the vapor recovery system must be used by all trucks unloading product.
- 5) In accordance with DEP Approval Trans. #52162 (11/6/1992), not permit any truck to unload product at the loading rack unless the truck is equipped with a properly operating and leak tight vapor recovery system as determined by markings/signage indicating that it has been leak tested in accordance with applicable leak testing requirements.

**EU 117 SO6**

- 6) In accordance with DEP Approval 1-P-93-022 (10/15/1993), post conspicuous signs at the unloading rack specifying that a properly operating and leak tight vapor recovery system must be used by all trucks/rail cars unloading product.
- 7) In accordance with DEP Approval 1-P-93-022 (10/15/1993), not permit any truck to unload product at the loading rack unless the truck is equipped with a properly operating and leak tight vapor recovery system as determined by markings/signage indicating that it has been leak tested in accordance with applicable leak testing requirements.

**Process-Wide**

- 8) The emission units in the GMS process are subject to the requirements of 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart. Solutia Inc. shall comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines. The final compliance date for 40 CFR 63 Subpart FFFF is 11/10/2006.

The following emission units are subject to and regulated by this operating permit:

Table 1 – Miscellaneous				
Emission Unit (EU)	Description of Emission Unit	Stack #	EU Design Capacity	Pollution Control Device
Miscellaneous				
131 F001	East Diversion Tank North Equalization Tank South Equalization Tank	Open tanks w/o stacks	300,000 gallons 1,000,000 gallons 1,000,000 gallons	none
IO F01	Cold Cleaning Degreaser-Resimene	Bldg. 94	20 gallons	closed cover & minimum freeboard ratio
	Cold Cleaning Degreaser-RB 9100	Bldg. 92	30 gallons	
	Cold Cleaning Degreaser-South Butvar	Bldg. 132	30 gallons	
	Cold Cleaning Degreaser-GME/GMS	Bldg. 103	30 gallons	
	Cold Cleaning Degreaser-Central Maintenance	Bldg. 100	30 gallons	
	Cold Cleaning Degreaser-Powerhouse	Bldg. 154	30 gallons	
	Cold Cleaning Degreaser-Saflex	Bldg. 99	30 gallons	
	Cold Cleaning Degreaser-Saflex	Bldg. 99	30 gallons	
	Cold Cleaning Degreaser-Saflex	Bldg. 99	30 gallons	
	Cold Cleaning Degreaser-Maintenance	Bldg. 61	30 gallons	
136 S001	4-½" NRM extruder	036 P052		Mist Eliminator (Monsanto Enviro-Chem)
	4-½" Berlin extruder			
	2-½" Extruder			
	1-½" Extruder			
	Twin screw extruder			
	Hot oil system			
	Plasticizer system			
	UnaDyn pellet dryer	036 P037		Fabric Filter (Hardy)
	Misc. point sources			
	Resin separator/receiver	exhaust fan		
	Diosna premix/cooler			
	Black-Clawson encapsulating machine (ALS)	none		
	Blender/granulator			
	Plasticizer surge tank			
Scrap separator				
Air knife				
Gradient handling equipment				



**IX. Miscellaneous – Applicable Requirements**

- A. EMISSION LIMITS AND RESTRICTIONS – The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3 – Miscellaneous				
EU #	Fuel or Raw Material	Pollutant	Emission Limits / Restrictions	Applicable Regulation and/or Approval No.
IO F01	degreasing solvent	volatile organic compounds	solvent use rate < 100 gallons/month for each cold cleaning degreaser	Regulation 310 CMR 7.03(8) Regulation 310 CMR 7.18(8)
136 S001	resins	particulate matter & condensable hydrocarbons	≥ 99.5% PM control (Resin separator / receiver)	Regulation 310 CMR 7.03(12)

- B. COMPLIANCE DEMONSTRATION – The Permittee is subject to the monitoring, testing, record-keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10): and applicable requirements as contained in Table 3.

Table 4 – Miscellaneous	
Emission Unit	Monitoring/Testing Requirements
IO F01	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.18(8)(a), not cause, suffer, allow or permit emissions of VOC from a cold cleaning degreaser unless the degreaser complies with (a)-(f) below or (f)-(i) below. <ol style="list-style-type: none"> <li>a. each cold cleaning degreaser is equipped with a cover which is designed to be easily operated with one hand.</li> <li>b. each cold cleaning degreaser is equipped to drain clean parts so that, while draining, the cleaned parts are enclosed for 15 seconds or until dripping ceases, whichever is longer.</li> <li>c. each cold cleaning degreaser is designed with a freeboard ratio of 0.75 or greater, or a water blanket (only if the solvent used is insoluble in and heavier than water), or an equivalent system of air pollution control which has been approved by the Department and EPA.</li> <li>d. the covers of each cold cleaning degreaser are closed whenever parts are not being handled in the degreaser, or when the degreaser is not in use.</li> <li>e. the drafts across the top of each cold cleaning degreaser are minimized such that when the cover is open the degreaser is not exposed to drafts greater than 40 meters per minute (1.5 miles per hour), as measured between one and two meters up-wind at the same elevation as the tank lip.</li> <li>f. any leaks are repaired immediately, or the degreaser is shut down.</li> <li>g. the cold cleaner must have a remote solvent reservoir.</li> <li>h. the solvent used in the cold cleaner must not have a vapor pressure that exceeds 4.3 kPa (33 mmHg or 0.6 PSI) measured at 38°C (100°F) or be heated above 50°C (120°F).</li> <li>i. the sink-like work area must have an open drain area less than 100 square centimeters.</li> </ol> </li> <li>2) In accordance with 310 CMR 7.18(8)(g), upon request of the Department or EPA, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(8).</li> </ol>
136 S001	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(b)2., and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, monitor the exhaust point of resin conveying systems and the mist eliminator for excess particulate emissions utilizing the monitoring devices / procedures described therein.</li> </ol>
Site-Wide	See Site-Wide Testing/Monitoring Requirements

Table 5 – Miscellaneous	
Emission Unit	Record-keeping Requirements
IO F01	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.18(8)(f) and 310 CMR 7.00 Appendix C(10)(b), prepare and maintain records of each solvent replacement sufficient to demonstrate compliance consistent with an instantaneous averaging time as stated in 310 CMR 7.18(2)(a). Records kept to demonstrate compliance shall be kept on-site for five years and shall be made available to representatives of the Department and EPA upon request. Such records shall include, but are not limited to: <ol style="list-style-type: none"> <li>a. identity, quantity, formulation and density of solvent(s) used, and</li> <li>b. quantity, formulation and density of all waste solvent(s) generated, and</li> <li>c. actual operational and performance characteristics of the degreaser.</li> </ol> </li> <li>2) In accordance with 310 CMR 7.03(8) and 7.18(8), prepare and maintain records of solvent replacement sufficient to demonstrate compliance with the solvent use rates stated in 310 CMR 7.03(8).</li> </ol>
136S001	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(d) and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, maintain records of all particulate monitoring device alarms and/or visual observations as described therein.</li> </ol>
Site-Wide	<b>See Site-Wide Recordkeeping Requirements</b>

Table 6 – Miscellaneous	
Emission Unit	Reporting Requirements
IO F01	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.18(8)(f), make available to the Department and EPA upon request, records kept to demonstrate compliance.</li> <li>2) In accordance with 310 CMR 7.03(5), report to the Department any construction, substantial reconstruction or alteration of a degreaser described in 310 CMR 7.03(8) on the next required Source Registration/Emission Statement, in accordance with 310 CMR 7.12.</li> </ol>
136S001	<p>Solutia shall</p> <ol style="list-style-type: none"> <li>1) In accordance with 310 CMR 7.00 Appendix C(9)(d) and DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance &amp; Malfunction Abatement Plan, report to the Department for all particulate monitoring device alarms and/or visual observations as described therein.</li> </ol>
Site-Wide	<b>See Site-Wide Reporting Requirements</b>

The annual Source Registration/Emission Statement report shall be submitted to the DEP office specified in the instructions. **All other reports, including both 6-month summary reports, are to be submitted to the Western Regional Office address, as specified on the letterhead of this Operating Permit.**

### **Miscellaneous Special Terms and Conditions**

The permittee is subject to the following special provisions that are not contained in Non-Process Specific Table 3, 4, 5, and 6:

- 1) In accordance with DEP Approval # 1-X-04-047 (12/23/2004) for a Preventative Maintenance & Malfunction Abatement Plan, implement the procedures described therein in response to particulate monitoring device alarms and/or visual observations.

- C. GENERAL APPLICABLE REQUIREMENTS – The Permittee shall comply with all general applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.
- D. REQUIREMENTS NOT CURRENTLY APPLICABLE – The Permittee is currently not subject to the following requirements:

Table 7	
Regulation	Reason
40 CFR 63 Subpart T: National Emissions Standards for Halogenated Solvent Cleaning	Not applicable
40 CFR 60 Subpart Da, Db, Dc	Not applicable
40 CFR 60 Subpart VV, for LDAR	Not applicable
40 CFR 60 Subpart NNN, for Distillation	Not applicable
40 CFR 60 Subpart III for Reactors	Not applicable
40 CFR 60 Subpart RRR for Reactors	Not applicable
40b CFR 60 Subpart DDD for Polymer Manufacturing	Not applicable

## **6. ALTERNATIVE OPERATING SCENARIOS**

The permittee did not request alternative operating scenarios in its operating permit application.

## **7. EMISSIONS TRADING**

- A. Intra-facility emission trading

The facility did not request intra-facility emissions trading in its operating permit application.

Pursuant to 310 CMR 7.00: Appendix C(7)(b), emission trades, provided for in this permit, may be implemented provided the Permittee notifies the United States Environmental Protection Agency (EPA) and the Department at least fifteen (15) days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2. is required to be submitted to the Department pursuant to 310 CMR 7.00: Appendix B.

- B. Inter-facility emission trading

The Permittee did not request inter-facility emissions trading in its operating permit application.

All increases in emissions due to emission trading must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et. seq. (the "Act"), and provided for in this permit.

## **8. COMPLIANCE SCHEDULE**

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the permit term.

## GENERAL CONDITIONS FOR OPERATING PERMIT

### **9. FEES**

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

### **10. COMPLIANCE CERTIFICATION**

All documents submitted to the Department shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>.

#### **(a) Annual Compliance Report and Certification**

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30<sup>th</sup> to the Department and to the Regional Administrator, U.S. Environmental Protection Agency – New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the Department to determine the compliance status of the source.

#### **(b) Semi-Annual Monitoring Summary Report and Certification**

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the Department. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;
- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- ix. any additional information required by the Department to determine the compliance status of the source.

#### **11. NONCOMPLIANCE**

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the Department and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable federal, state, or local rules and regulations, not addressed in this permit.

#### **12. PERMIT SHIELD**

- A. This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the Permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier approval or permit, the terms and conditions of this permit control.

- B. The Department has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.
- C. Nothing in this permit shall alter or affect the following:
- (i) the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.

- (ii) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
- (iii) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

### **13. ENFORCEMENT**

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.02(8)(i), 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A.

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the Department, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### **14. PERMIT TERM**

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date 5 years after issuance of this permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

### **15. PERMIT RENEWAL**

Upon the Department's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the Department on the renewal application.

In the event the Department has not taken final action on the operating permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the Department takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

### **16. REOPENING FOR CAUSE**

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department and/or EPA. The responsible official of the facility may request that the Department terminate the facility's operating permit for cause. The

Department will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an operating permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any operating permit condition.

#### **17. DUTY TO PROVIDE INFORMATION**

Upon the Department's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records that the Permittee is required to retain by this permit.

#### **18. DUTY TO SUPPLEMENT**

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the Department a material error or omission in any records, reports, plans, or other documents previously provided to the Department.

#### **19. TRANSFER OF OWNERSHIP OR OPERATION**

This permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between current and new Permittee, has been submitted to the Department.

#### **20. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

#### **21. INSPECTION AND ENTRY**

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the Department, and EPA to perform the following:

- A. enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- B. have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;



- C. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- D. sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

## **22. PERMIT AVAILABILITY**

The Permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the Department or EPA.

## **23. SEVERABILITY CLAUSE**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

## **24. EMERGENCY CONDITIONS**

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. an emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. the permitted facility was at the time being properly operated;
- C. during the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- D. the Permittee submitted notice of the emergency to the Department within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response, immediate notification to the appropriate parties should be made as required by law.

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<sup>1</sup> Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

<sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

## **25. PERMIT DEVIATION**

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6. of this Operating Permit shall supercede the following deviation reporting requirements, if applicable.

The Permittee shall report to the Department's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>. This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations which do not require 3 day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

## **26. OPERATIONAL FLEXIBILITY**

The Permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit and in compliance with all applicable requirements provided the Permittee gives the EPA and the Department written notice fifteen (15) days prior to said change; notification is not required for

exempt activities listed at 310 CMR 7.00: Appendix C(5)(i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

## **27. MODIFICATIONS**

- A. Administrative Amendments – The permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- B. Minor Modifications – The permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- C. Significant Modifications – The permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- D. No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

## **APPEAL CONDITIONS FOR OPERATING PERMIT**

This permit is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the Department's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a permit.

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 permit 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:

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

The 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.

The Department 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.