AFS# 9304200086

CAA FAD
03/28/19

Solutia Inc.,
Indian Orchard Plant
730 Worcester Street
Springfield, Massachusetts 01151

Certified Mail – 7015 0640 0001 0688 6471
Return Receipt Requested

January 30, 2019

RECEIVED
FEB 04 2019
BY:

Sandra Schwartz, Air Compliance Clerk
U.S. EPA Region I
Air Technical Unit OES04-2
5 Post Office Square, Suite 100
Boston, MA 02109-3912

RE: Operating Permit – 2018 Annual Compliance Report

Dear Director:

Enclosed is a copy of the 2018 Annual Compliance Certification and Report for the Solutia, Indian Orchard site. Please note that because the Title V Operating Permit renewal was finalized on October 25, 2018, there are two of these forms covering the old Operating Permit (#1-O-09-015) and the newly issued one (#1-O-09-020).

A copy of the annual report has also been provided to the Western Region of the Massachusetts Department of Environmental Protection.

If you should have any questions, please call me at (413) 730-3551 or e-mail me at chrisaberg@eastman.com

Sincerely,

Chris Aberg
Senior Environmental Supervisor
Solutia Inc., a subsidiary of Eastman Chemical Company

Enclosure

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Business Compliance Division

Operating Permit Annual Compliance Certification and Report

042/0086	298974	X228552
SSEIS Number	FMF Facility Number	Transmittal Number
1-O-09-015	305464	3081, 2821, 2869, 2891
Application Number	FMF R.O. Number	SIC Code(s)

Pursuant to 310 CMR 7.00 Appendix C(5)(b)9, the Annual Compliance Certification must be certified by the responsible official. Failure to provide accurate information in this report may result in civil and/or criminal penalties according to 310 CMR 7.01(2).
Additional information regarding the report and documentation listed below must be kept on file for at least 5 years and be made available to the Department upon request as required by 310 CMR 7.00 Appendix C(10).

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

Facility Information

Solutia Inc., a wholly-owned subsidiary of Eastman Chemical Company, Indian Orchard Plant
Name

730 Worcester St.
Street Address

Springfield	MA	01151-1089	413-730-2300
City	State	Zip Code	Telephone Number

Chris Aberg
Facility Contact Person

Senior Environmental Supervisor
Contact person's title

Annual Compliance Certification (General Condition No. 10 of the Operating Permit)

Reporting Period (Provide Inclusive Dates) January 1, 2018 (From) October 24, 2018 (To)

RECEIVED FEB 04 2019 BY:

1. ☐ During the entire period, this facility was in compliance with ALL terms and conditions contained in the Operating Permit, each term and condition of which is identified and included in the included '*Air Operating Permit Annual Compliance Report*'. The method(s) use to determine compliance is/are the method(s) specified in the Operating Permit. OR

2. ☒ During the reporting period this facility was not in compliance with a term(s) and/or condition(s) contained in the Operating Permit. I am submitting the '*Air Operating Permit Annual Compliance Report*' and the *Air Operating Permit Cross-Reference Form*, Attachment E, for previous deviation submittals.

I certify that I have personally examined the Annual Compliance Report 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. I am aware that additional information may be requested.

B. Shayne Cowan	Site Manager	
Name of Responsible Official	Title	
B. Shayne Cowan	(413) 730-3000	January 30, 2018
Signature of Responsible Official	Phone Number	Date

By Signing This Form You are Certifying to Page 1 Through Page 17

Air Operating Permit Annual Compliance Report

NOTE: Y = Yes; N = No; C = Continuous; I = Intermittent			Em. Limit / Restriction: Table 3				Monitoring: Table 4				Testing: Table 4				Record Keeping: Table 5				Reporting: Table 6			
EU#	Pollutant	Fuel /Raw Material/ Restriction/Limitation/ Regulation / Approval Number	Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was	
			Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C
FW	Volatile organic compounds	➢ Various ➢ 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), MassDEP RACT Approval (6/20/1989), Leak Detection and Repair Program Approval (4/14/1987)	X			X	X			X	X			X	X			X	X			X
FW	Opacity	➢ Any ➢ ≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour ➢ 310 CMR 7.06(1)(b)	X			X	X			X	X			X	X			X	X			X

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150S01	sulfur dioxide, particulate matter, nitrogen oxides, carbon monoxide, sulfur in fuel	➢ Natural gas or #2 oil ➢ SO_2 - 1.2 lb SO_2/MMBtu (calendar year avg.); 310 CMR 7.22 (Acid Rain) ➢ PM - 0.12 lb/MMBtu; 310 CMR 7.02(8)(d) TABLE 4 ➢ NO_x - 0.30 lb/MMBtu & 147 tons/yr; MassDEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(4)(a)4.a. Large Boiler [3] ➢ CO - ≤ 200 ppmv @3% O_2; MassDEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(4)(a)4.a. Large Boiler [3] ➢ S in fuel - .17 lb S/MMBtu (≈ 0.3% sulfur by wt.); 310 CMR 7.05(1)(a)2	X			X	X			X	X			X	X			X	X			X
150S02	sulfur dioxide, particulate matter, nitrogen oxides, carbon monoxide, sulfur in fuel	➢ Natural gas or #2 oil ➢ SO_2 - 1.2 lb SO_2/MMBtu (calendar year avg.); 310 CMR 7.22 (Acid Rain) ➢ PM - 0.10 lb/MMBtu; 310 CMR 7.02(8)(d) TABLE 4 ➢ NO_x - 0.40 lb/MMBtu & 343 tons/yr; MassDEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(4)(a)4.a. Large Boiler [3] ➢ CO - ≤ 200 ppmv @3% O_2; MassDEP Approval #1-E-94-106 (10/28/1996) & 310 CMR 7.19(4)(a)4.a. Large Boiler [3] ➢ S in fuel - .17 lb S/MMBtu (≈ 0.3% sulfur by wt.); 310 CMR 7.05(1)(a)2	X			X	X			X	X			X	X			X	X			X

Air Operating Permit Annual Compliance Report

150S03	sulfur dioxide, particulate matter, nitrogen oxides, carbon monoxide, sulfur in fuel, ash in fuel	➢ Coal ➢ SO_2 - 1.2 lb SO_2/MMBtu (calendar year avg.); 310 CMR 7.22 (Acid Rain) ➢ PM - 0.027 lb/MMBtu; MassDEP Approval #PV-83-C-010 (7/27/1984), MassDEP Approval #1-P-09-002 (0526/2009) ➢ NO_x - 0.525 lb/MMBtu & 573 tons/year; MassDEP Approval #1-E-94-106 (10/28/1996), & 310 CMR 7.19(12) Misc. RACT ➢ CO - ≤ 200 ppmv @3% O_2 ; MassDEP Approval #1-E-94-106 (10/28/1996), & 310 CMR 7.19(12) Misc. RACT ➢ S in fuel - 0.55 lb S/MMBtu (rolling 30 day average); MassDEP Approval #PV-83-C-010 (7/27/1984) ➢ Ash in fuel ≤ 9.0% (calendar year average); 310 CMR 7.05(3), MassDEP Approval #PV-83-C-010 (7/27/1984), MassDEP Approval #1-O-05-044 (10/21/2005)	X			X	X			X	X			X	X			X	X			X
150S01 150S02 150S03	Smoke	➢ Any ➢ 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)	X			X	X			X	X			X	X			X	X			X
142S01	volatile organic compounds	➢ Monomer ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-023 (08/28/2007)	X		X		X			X	X			X	X		X		X			X
142S02	volatile organic compounds	➢ Monomer ➢ Cooling water supply temperature < 95°F, Scrubber flow rate ≥ 5.0 gallons/minute; ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17), 40 CFR 63 Subpart FFFF (Misc Organic Chemical Mfg.), MassDEP Approval #1-P-07-023 (08/28/2007), MassDEP Approval #1-P-09-002 (05/26/2009)	X		X		X			X	X			X	X		X		X			X

Air Operating Permit Annual Compliance Report

142S03	volatile organic compounds	➢ Polymer, Solvent ➢ Cooling water supply temperature < 95°F, Scrubber flow rate ≥ 2.0 gallons/minute; ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17), 40 CFR 63 Subpart FFFF (Misc Organic Chemical Mfg.), MassDEP Approval #1-P-07-023 (08/28/2007), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X		X		X			X
142S04	volatile organic compounds	➢ Polymer, Solvent, reactant ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-023 (08/28/2007)	X		X		X			X	X			X	X		X		X			X
142S05	volatile organic compounds	➢ Polymer, water ➢ None ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17)	X			X	X			X	X			X	X			X	X			X
142S06	volatile organic compounds, particulate matter	➢ Polymer ➢ ≥ 95% scrubber efficiency (alone) for ethanol, ≥ 70% scrubber efficiency (alone) for ethyl acetate & butyraldehyde, ≥ 85% reduction by scrubber & biofilter ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17), MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987) ,MassDEP Approval #1-P-92-006 (5/26/1992), MassDEP Approval #1-P-01-068 (12/19/2001), MassDEP Approval #1-P-03-008 (3/25/2003), MassDEP Approval #1-P-09-002 (05/26/2009)	X		X		X			X	X		X		X			X	X			X
142S07	particulate matter	➢ Polymer ➢ No visible emissions ➢ MassDEP 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), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X			X
142S08	volatile organic compounds	➢ Solvents ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-023 (08/28/2007)	X		X		X			X	X			X	X		X		X			X

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142S09	volatile organic compounds	➢ Off-grade ethyl acetate ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-023 (08/28/2007)	X		X		X			X	X			X	X		X		X			X
142S10	volatile organic compounds	➢ Reactant ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-023 (08/28/2007)	X		X		X			X	X			X	X		X		X			X
142S11	volatile organic compounds	➢ Solvent ➢ ≥ 95% scrubber efficiency (alone) for ethanol, ≥ 70% scrubber efficiency (alone) for ethyl acetate & butyraldehyde, ≥ 85% reduction by scrubber & biofilter ➢ MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), MassDEP Approval #1-P-92-006 (5/26/1992), Transmittal #46119 (12/18/1992; AMENDED 10/8/1993), MassDEP Approval #1-P-03-008 (3/25/2003), MassDEP Approval #1-P-09-002 (05/26/2009)	X		X		X			X	X			X	X			X	X			X
142S12	volatile organic compounds	➢ Solvent ➢ None ➢ MassDEP RACT Approval (6/20/1989)	X			X	X			X	X			X	X			X	X			X
142S13	volatile organic compounds	➢ Solvent ➢ None ➢ MassDEP RACT Approval (6/20/1989)	X			X	X			X	X			X	X			X	X			X
142S14	volatile organic compounds	➢ Solvent ➢ None ➢ MassDEP RACT Approval (6/20/1989)	X			X	X			X	X			X	X			X	X			X
142S15	volatile organic compounds	➢ Solvent ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-023 (08/28/2007), MassDEP Approval #1-P-09-002 (05/26/2009)	X		X		X			X	X			X	X		X		X			X
142S16	Hazardous Air Pollutants	➢ Solvents ➢ Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥ 98% by weight ➢ 40 CFR 63 Subpart FFFF (Misc. Organic Chemical Mfg.), MassDEP Approval #1-P-07-023 (08/28/2007)	X		X	X	X			X	X			X	X			X	X			X

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Process Wide	volatile organic compounds & Hazardous Air Pollutants	LDAR Standards not specifically listed in Table 3					X			X	X		X		X			X					
099 S001	particulate matter	➢ Polyvinyl butyral resin ➢ ≥ 99.5% control ➢ MassDEP Approval #1-P-89-114 (5/7/90), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X				X
099 S002	particulate matter	➢ Polyvinyl butyral scrap plastic sheet ➢ ≥ 99.8% control for particles ≥ 50 µm ➢ MassDEP Approval #PV-83-IF-002 (3/7/83), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X				X
099 S003	particulate matter	➢ Polyvinyl butyral scrap plastic sheet ➢ ≥ 99.8% control for particles ≥ 50 , ≥ 99.5% control ➢ MassDEP Approval #PV-83-IF-003 (3/17/83), MassDEP Approval #1-P-89-114 (5/7/90), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X				X
099 S005a	volatile organic compounds	➢ Polyvinyl butyral resin & plasticizers ➢ ≥ 85% VOC control, ≥ 300 gallons/minute water flow ➢ MassDEP Approval #PV-88-IF-004 (5/20/88), MassDEP RACT Approval (6/20/89), MassDEP Approval #1-P-93-007 (4/16/93), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X		X		X				X
099 S005b	volatile organic compounds	➢ Polyvinyl butyral plastic sheet ➢ ≤ 4.9 tpy from SV process exhaust ➢ MassDEP Approval #1-P-01-007 (4/24/01)	X			X	X			X	X			X	X			X	X				X
099 S006	volatile organic compounds	➢ Polyvinyl butyral resin & plasticizers ➢ ≥ 85% VOC control, ≥ 300 gallons/minute water flow ➢ MassDEP Approval #PV-88-IF-004 (5/20/88), MassDEP Approval #1-P-92-016 (6/25/92), MassDEP Approval #1-P-93-007 (4/16/93), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X		X		X				X

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092S01	Volatile organic compounds & Butyralde-hyde	➢ Volatile organic compounds & resins ➢ ≥ 95% VOC control ➢ MassDEP Approval #1-P-99-020 (8/2/1999), MassDEP Approval #PV-85-IF-010 (1/16/1985), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X			X
092S02	Volatile organic compounds & Butyralde-hyde	➢ Butyraldehyde ➢ ≥ 90% VOC control over each unloading operation ➢ MassDEP Approval #PV-85-IF-010 (1/16/1985)	X			X	X			X	X			X	X			X	X			X
092S03	particulate matter	➢ Resins ➢ ≥ 99.98% particulate control, ≤ 0.02 gr/ACF outlet loading ➢ MassDEP Approval #PV-85-IF-010 (1/16/1985), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X			X
092S04	particulate matter	➢ Resins ➢ ≥ 99.98% particulate control, ≤ 0.47 lb/hr ➢ MassDEP Approval #1-P-90-045 (7/12/1990), MassDEP Approval #1-P-09-002 (05/26/2009)	X		X		X			X	X			X	X			X	X			X
092S05	particulate matter	➢ Resins ➢ ≥ 99.98% particulate control, ≤ 0.01 gr/ACF; ≤ 1.9 pounds/hour ➢ MassDEP Approval #PV-85-IF-010 (1/16/1985), MassDEP Approval #1-P-99-020 (8/2/1999), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X			X
Process Wide	Resin	➢ Resin ➢ ≤ 82.3 x 106 lb resin production/year ≤ 8.00 x 106 lb resin production/month ➢ MassDEP Approval #1-P-08-005 (04/11/2008)	X			X	X			X	X			X	X			X	X			X
Process Wide	volatile organic compounds	LDAR Standards not specifically listed in Table 3					X			X	X			X	X			X				

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121S01	volatile organic compounds	➢ Vinyl acetate & acrylic monomers ➢ Scrubber efficiency ≥ 90% for vinyl acetate, methyl acrylate, acetaldehyde, methyl methacrylate, acrylic acid, & butyl acrylate water-cooled condensers – water supply temp. ≤ 95 °F water-cooled condensers – control efficiency ≥ 85% ➢ MassDEP Approval Trans. #50849 (November 2, 1992), MassDEP Approval #1-P-09-002 (05/26/2009), Regulation 310 CMR 7.18(17), MassDEP RACT Approval (6/20/1989)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
GME Process Wide	volatile organic compounds & Hazardous Air Pollutants	LDAR Standards not specifically listed in Table 3	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S01	volatile organic compounds	➢ Solvents & monomers ➢ Scrubber efficiency ≥ 90% (except for hydrophobic hydrocarbons such as toluene, styrene, and heptane) Water-cooled condensers – water supply temp. ≤ 95 °F Water-cooled condensers – control efficiency ≥ 85% ➢ MassDEP Approval Trans. #46071 (10/30/1992), MassDEP Approval #1-P-09-002 (05/26/2009), Regulation 310 CMR 7.18(17), MassDEP RACT Approval (6/20/1989)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]

Air Operating Permit Annual Compliance Report

117S02	volatile organic compounds	➢ Solvents & monomers ➢ Scrubber efficiency ≥ 90% (except for hydrophobic hydrocarbons such as toluene, styrene, and heptane) Water-cooled condensers – water supply temp. ≤ 95 °F Water-cooled condensers – control efficiency ≥ 85% ➢ MassDEP Approval Trans. #46071 (10/30/1992), MassDEP Approval #1-P-09-002 (05/26/2009), Regulation 310 CMR 7.18(17), MassDEP RACT Approval (6/20/1989)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S03	volatile organic compounds	➢ Solvents & monomers ➢ Scrubber efficiency ≥ 90% (except for hydrophobic hydrocarbons such as toluene, styrene, and heptane) Water-cooled condensers – water supply temp. ≤ 95 °F Water-cooled condensers – control efficiency ≥ 85% ➢ MassDEP Approval Trans. #46071 (10/30/1992), MassDEP Approval #1-P-09-002 (05/26/2009), Regulation 310 CMR 7.18(17), MassDEP RACT Approval (6/20/1989)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117 S04a	volatile organic compounds	➢ Polymer solutions ➢ None (no controls are determined to be RACT) ➢ MassDEP RACT Approval (6/20/1989)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117 S04b	volatile organic compounds	➢ Polymer solutions ➢ ≤ 1,000,000 pounds production of organic solvent based products (12 month rolling total) Water-cooled condensers – water supply temp. ≤ 95 °F Water-cooled condensers – control efficiency ≥ 85 % ➢ MassDEP Approval #1-P-01-011 (4/11/2001), Regulation 310 CMR 7.18(17), MassDEP RACT Approval (6/20/1989)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]

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117S05	volatile organic compounds	➢ Solvents & monomers ➢ Vapor recovery control efficiency ≥ 90% for working losses ➢ MassDEP Approval Trans. #52162 (11/6/1992)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S06	volatile organic compounds	➢ Solvents & monomers ➢ Vapor recovery control efficiency ≥ 90% ➢ MassDEP Approval #1-P-93-022 (10/15/1993)	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
GMS Process Wide	volatile organic compounds & Hazardous Air Pollutants	LDAR Standards not specifically listed in Table 3	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]	N/A[1]
IOF01	volatile organic compounds	➢ Degreasing solvent ➢ Solvent use rate < 100 gallons/month for each cold cleaning degreaser ➢ Regulation 310 CMR 7.03(8), Regulation 310 CMR 7.18(8)	X			X	X			X	X			X	X			X	X			X
136 S001	particulate matter & condensable hydrocarbons	➢ Resins ➢ ≥ 99.5% PM control (Resin separator / receiver) ➢ Regulation 310 CMR 7.03(12), MassDEP Approval #1-P-09-002 (05/26/2009)	X			X	X			X	X			X	X			X	X			X

[1] – The Adhesives processes (GMS and GME) were shut-down in late September 2014. Solutia surrendered the Title V Operating Permit for those two processes in November 2014. Accordingly, the associated emission units did not operate during calendar year (CY) 2015, so it is not appropriate to certify compliance for the associated emission units. The Adhesives process units were demolished and no longer physically exist at the plant as of December 2015.

Air Operating Permit Annual Compliance Report

Special Terms & Conditions & Generally Applicable Requirements		Special Terms and Conditions: Table 8			
EU# or Facility Wide	Special Term or Condition or Generally Applicable Requirement	Currently in Compliance?		Compliance Was	
		Y	N	I	C
FW	In accordance with 310 CMR 7.12, submit annual emission statement.	X			X
FW	Submit semi-annual compliance report in accordance with 310 CMR 7.00 Appendix C(10)(c)	X			X
FW	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.	X			X
FW	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.	X			X
150S03	In accordance with MassDEP Approval #1-E-94-106 (October 28, 1996) and a MassDEP 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	X			X
150S03	In accordance with MassDEP 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 MassDEP. A request for such operation shall be made in writing to the MassDEP and shall include a demonstration that NOx 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 MassDEP of the test dates, MassDEP witnessing of the test, submittal of stack test report, MassDEP 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 NOx and CO emissions in support of a request for modified operation. Once modified boiler control setting are approved by the MassDEP, Solutia shall conduct the next yearly compliance stack test utilizing these modified control settings.	X			X
150S03	In accordance with MassDEP 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.	X			X
150S03	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X

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142S01, 142S02, 142S04, 142S08, 142S10, 142S15	In accordance with MassDEP 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.	X			X
142S01, 142S02, 142S04, 142S08, 142S10, 142S15	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.	X			X
142S06 and 142S11 (scrubber only operation)	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 MassDEP in writing.	X			X
142S06 and 142S11 (scrubber only operation)	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 ≥ 215 gpm is supplied to the scrubber, and the scrubber shall be alarmed at a flow of ≤ 180 gpm.	X			X
142S06 and 142S11 (scrubber only operation)	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.	X			X
142S06 and 142S11 (biofilter operation)	In accordance with MassDEP Approval #1-P-01-068 (12/19/2001), Solutia shall ensure that total flow to any one cell of the biofilter shall be ≤ 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.	X			X
142S06 and 142S11 (biofilter operation)	Solutia shall ensure that the compost bed depth is ≥ 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.	X			X
142S06 and 142S11 (biofilter operation)	In accordance with MassDEP 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.	X			X
142S04	In accordance with the MassDEP RACT Approval (June 20, 1989), Solutia shall ensure that the hydrolysis reactors are equipped with properly functioning mechanical seals.	X			X

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142S15	In accordance with MassDEP 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 MassDEP RACT Approval (6/20/1989) permit conditions for that emission vent are only performed during the non-ozone months; that is between September 15th and May 1st. Any scheduled routine maintenance of this type that must occur during the "ozone season" must be authorized by the MassDEP in writing.	X			X
142S05, 142S12, 142S13, 142S14	In accordance with the MassDEP RACT Approval (June 20, 1989), there are no controls or restrictions for these emission units under the MassDEP RACT Approval (6/20/1989).	X			X
142S02, 142S03, 142S06, 142S07, 142S11, 142S15	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X
Process Wide – South Butvar	In accordance with 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart, comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines. The final compliance date for 40 CFR 63 Subpart FFFF is 05/10/2008.	X		X	
099S002	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown, whenever the Saflex® E-Line scrap handling equipment is in operation.	X			X
099S003	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown, whenever the Saflex® PEG Recycle Scrap Handling equipment is in operation.	X			X
099S005a 099S006	In accordance with MassDEP 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.	X			X
099S005a 099S006	In accordance with MassDEP Approval #PV-88-IF-004 (5/20/88), Solutia Inc. shall ensure that the SOMP for the scrubber is adhered to.	X			X
099S002	In accordance with MassDEP 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.	X			X
099 S001 099 S002 099 S003 099 S005a 099 S006	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X
092 S01 092 S03 092 S04 092 S05	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X

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FW – RB9100	In accordance with MassDEP Approval #1-P-89-020 (June 28, 1989), Solutia Inc. shall submit to the MassDEP by January 15th 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 Solutia's model.	X			X
FW – RB9100	In accordance with MassDEP 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.	X			X
FW – RB9100	In accordance with MassDEP 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.	X			X
121 S01	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
FW – GME Process	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 5/10/2008.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S01, 117S02, 117S03	In accordance with MassDEP 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 MassDEP in writing.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S01, 117S02, 117S03	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S04b	In accordance with MassDEP 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.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S04b	In accordance with MassDEP 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.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S05	In accordance with MassDEP 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.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S05	In accordance with MassDEP 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.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
117S06	In accordance with MassDEP 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.	N/A[1]	N/A[1]	N/A[1]	N/A[1]

Air Operating Permit Annual Compliance Report

117S06	In accordance with MassDEP 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.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
FW – GMS Process	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 5/10/2008.	N/A[1]	N/A[1]	N/A[1]	N/A[1]
IO F01	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 solvent used in a cold cleaning degreaser has have a vapor pressure that does not exceed 1.0 mm Hg measured at 20 °C. This requirement shall not apply to the following: a. cold cleaning degreasers used in special and extreme solvent metal cleaning; b. cold cleaning degreasers for which the owner or operator has received MassDEP approval of a demonstration that compliance with the requirement to use a solvent with a vapor pressure of 1.0 mm Hg or less at 20/C will result in unsafe operating conditions; and c. cold cleaning degreasers that are located in a permanent total enclosure having control equipment that is designed and operated with an overall VOC control efficiency of 90% or greater.	X			X
IO F01	In accordance with 310 CMR 7.18(8)(a), not cause, suffer, allow or permit emissions of VOC from a cold cleaning degreaser unless any leaks are repaired immediately, or the degreaser shut down.	X			X
IO F01	The following requirements shall apply unless the cold cleaning degreaser is a sinklike work area with a remote solvent reservoir with an open drain area less than 100 square centimeters: a. Each cold cleaning degreaser is equipped with a cover that is designed to be easily operated with one hand; 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; c. Each cold cleaning degreaser is designed with: i. a freeboard ratio of 0.75 or greater; or ii. a water blanket (only if the solvent used is insoluble in and heavier than water); or iii. an equivalent system of air pollution control which has been approved by the MassDEP and EPA; 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; and 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 upwind at the same elevation as the tank lip.	X			X
136 S001	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X

[1] – The Adhesives processes (GMS and GME) were shut-down in late September 2014. Solutia surrendered the Title V Operating Permit for those two processes in November 2014. Accordingly, the associated emission units did not operate during calendar year (CY) 2015, so it is not appropriate to certify compliance for the associated emission units. The Adhesives process units were demolished and no longer physically exist at the plant as of December 2015.

Air Operating Permit Annual Compliance Report

Alternative Operating Scenarios		Monitoring: Table 4				Testing: Table 4				Record Keeping: Table 5				Reporting: Table 6			
EU# or Facility	Alternative Operating Scenario	Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was	
		Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C
	No alternate operating scenarios at this facility																

Emissions Trading		Monitoring: Table 4				Testing: Table 4				Record Keeping: Table 5				Reporting: Table 6			
EU# or Facility Wide	Emissions Trading	Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was		Currently in		Compliance Was		Currently in Compliance		Compliance Was	
		Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C
	No emisisons trading at this facility																

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Business Compliance Division

Operating Permit Annual Compliance Certification and Report

042/0086	298974	X229245
SSEIS Number	FMF Facility Number	Transmittal Number
1-O-09-020	305464	3081, 2821, 2869, 2891
Application Number	FMF R.O. Number	SIC Code(s)

Pursuant to 310 CMR 7.00 Appendix C(5)(b)9, the Annual Compliance Certification must be certified by the responsible official. Failure to provide accurate information in this report may result in civil and/or criminal penalties according to 310 CMR 7.01(2).
Additional information regarding the report and documentation listed below must be kept on file for at least 5 years and be made available to the Department upon request as required by 310 CMR 7.00 Appendix C(10).

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

Facility Information

Solutia Inc., a wholly-owned subsidiary of Eastman Chemical Company, Indian Orchard Plant
Name

730 Worcester St.
Street Address

Springfield	MA	01151-1089	413-730-2300
City	State	Zip Code	Telephone Number

Chris Aberg
Facility Contact Person

Senior Environmental Supervisor
Contact person's title

Annual Compliance Certification (General Condition No. 10 of the Operating Permit)

Reporting Period (Provide Inclusive Dates) October 25, 2018 (From) December 31, 2018 (To)

1. ☐ During the entire period, this facility was in compliance with ALL terms and conditions contained in the Operating Permit, each term and condition of which is identified and included in the included '*Air Operating Permit Annual Compliance Report*'. The method(s) use to determine compliance is/are the method(s) specified in the Operating Permit. OR

2. ☒ During the reporting period this facility was not in compliance with a term(s) and/or condition(s) contained in the Operating Permit. I am submitting the '*Air Operating Permit Annual Compliance Report*' and the *Air Operating Permit Cross-Reference Form*, Attachment E, for previous deviation submittals.

I certify that I have personally examined the Annual Compliance Report 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. I am aware that additional information may be requested.

B. Shayne Cowan	Site Manager	
Name of Responsible Official	Title	
B. Shayne Cowan	(413) 730-3000	January 30, 2019
Signature of Responsible Official	Phone Number	Date

By Signing This Form You are Certifying to Page 1 Through Page 21

Facility Name: Solutia Indian Orchard Plant Facility Address: 730 Worcester St SSEIS No.: 042/0086 Transmittal No. X228552 Date of Issuance 10/23/2009

Air Operating Permit Annual Compliance Report

NOTE: Y = Yes; N = No; C = Continuous; I = Intermittent			Em. Limit / Restriction: Table 3				Monitoring: Table 4				Testing: Table 4				Record Keeping: Table 5				Reporting: Table 6			
EU#	Pollutant	Fuel /Raw Material/ Restriction/Limitation/ Regulation / Approval Number	Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was		Currently in Compliance?		Compliance Was	
			Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C
FW	Volatile organic compounds	➢ Various ➢ > 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 MassDEP Approval. ➢ Regulation 310 CMR 7.18(17), MassDEP RACT Approval (6/20/1989), Leak Detection and Repair Program Approval (4/14/1987)	X			X	X			X	X			X	X			X	X			X
FW	Greenhouse gas	➢ N/A ➢ Regulation 310 CMR 7.71 (state only)	N/A	N/A	N/A	N/A	X			X	X			X	X			X	X			X
FW	Opacity	➢ Any ➢ ≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour ➢ 310 CMR 7.06(1)(b)	X			X	X			X	X			X	X			X	X			X

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150S01	sulfur dioxide, nitrogen oxides, carbon monoxide, smoke, opacity, particulate matter	➢ Natural Gas ➢ SO2 - 1.2 lb SO2/MMBtu (calendar year avg.); 310 CMR 7.22 (Acid Rain) ➢ NOx - ≤0.20 lb/MMBtu of heat input (based on one (1) hour average); MassDEP Approval #1-E-94-106 (Emission Control Plan date 10/28/1996) & 310 CMR 7.19(4)(a)4.a.5. ➢ CO - ≤ 200 ppmvd @3% O2, based on one (1) hour average; 310 CMR 7.19(4)(f). ➢ Smoke - < No. 1 of the Chart, except No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour; 310 CMR 7.06(1)(a) ➢ Opacity - ≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour; 310 CMR 7.06(1)(b) ➢ PM - 0.12 lb/MMBtu; 310 CMR 7.02(8)(d) TABLE 4	X			X	X			X	X			X	X			X	X			X
150S02	sulfur dioxide, nitrogen oxides, carbon monoxide, smoke, opacity, particulate matter	➢ Natural Gas ➢ SO2 - 1.2 lb SO2/MMBtu (calendar year avg.); 310 CMR 7.22 (Acid Rain) ➢ NOx - ≤0.20 lb/MMBtu of heat input (based on one (1) hour average); MassDEP Approval #1-E-94-106 (Emission Control Plan date 10/28/1996) & 310 CMR 7.19(4)(a)4.a.5. ➢ CO - ≤ 200 ppmvd @3% O2, based on one (1) hour average; 310 CMR 7.19(4)(f). ➢ Smoke - < No. 1 of the Chart, except No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour; 310 CMR 7.06(1)(a) ➢ Opacity - ≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour; 310 CMR 7.06(1)(b) ➢ PM - 0.10 lb/MMBtu; MassDEP Approval #PV-76-C-001 (8/6/1976)	X			X	X			X	X			X	X			X	X			X

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150S03	sulfur dioxide, VOCs, particulate matter (including PM10 and PM2.5), nitrogen oxides, carbon monoxide, smoke, opacity	➢ Natural Gas ➢ SO2 - ≤0.0006 lb SO2/MMBtu of heat input; MassDEP Approval #WE-14-013 (2/4/2015) ➢ VOCs - ≤ 0.00539 lb/MMBtu of heat input; MassDEP Approval #WE-14-013 (2/4/2015) ➢ PM / PM10 / PM2.5- ≤0.00745 lb/MMBtu of heat input; MassDEP Approval #WE-14-013 (2/4/2015) ➢ NOx - ≤0.20 lb/MMBtu of heat input (based on one (1) hour average); MassDEP Approval #WE-14-013 (2/4/2015) ➢ CO - ≤ 200 ppmvd @3% O2, based on one (1) hour average; MassDEP Approval #WE-14-013 (2/4/2015) ➢ Smoke - < No. 1 of the Chart, except No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour; MassDEP Approval #WE-14-013 (2/4/2015) ➢ Opacity - ≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour; MassDEP Approval #WE-14-013 (2/4/2015)	X			X	X			X	X			X	X			X	X			X
142S01	VOC, HAP	➢ Monomer ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ MassDEP Approval #1-P-07-024 (08/28/2007); MassDEP Plan Approval #WE-16-018 (2/21/2017)	X		X		X			X	X			X	X			X	X			X

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142S02 Stack # 142 P662 and 142 P663	VOC, HAP	➢ Monomer ➢ Cooling water supply temperature < 95°F ➢ Scrubber flow rate ≥ 5.0 gallons/minute; ➢ reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥ 98% by weight by scrubber and condenser ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17), MassDEP Approval #1-P-07-024 (08/28/2007), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011); 40 CFR 63 Subpart FFFF (Group 1 Batch Process Vents)	X		X		X			X	X			X	X			X	X			X
142S02 Stack # 142 P644	VOC, HAP	➢ Monomer ➢ Scrubber flow rate ≥ 0.75 gallons/minute ➢ reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥ 98% by weight by scrubber and condenser ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17); MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011); 40 CFR 63 Subpart FFFF (Group 1 Batch Process Vents)	X			X	X			X	X			X	X			X	X			X

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142S03 Stack # 142 P630	VOC, HAP	➢ Polymer, Solvent ➢ Cooling water supply temperature < 95°F, Scrubber flow rate ≥ 2.0 gallons/minute; ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17), MassDEP Approval #1-P-07-024 (08/28/2007), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011); 40 CFR 63 Subpart FFFF (Group 1 Batch Process Vents and Group 2 Continuous Process Vent (pre-dissolver))	X			X	X			X	X			X	X			X	X			X
142S04	VOC	➢ Polymer, Solvent, reactant ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ MassDEP Approval #1-P-07-024 (08/28/2007); MassDEP Plan Approval #WE-16-018 (2/21/2017); 40 CFR 64, Compliance Assurance Monitoring	X		X		X			X	X			X	X			X	X			X
142S04 Stack # 142 P901	VOC Total HAP	➢ Polymer, Solvent, reactant ➢ Condenser coolant flow ≥ 35 gal/min ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ Design control efficiency of 99% ➢ VOC: 0.924 lbVOC/batch, 1.0 TPY, 0.2 TPM ➢ Total HAP: 0.003 lbtotalHAP/batch, 0.002 TPY, 0.001 TPM ➢ MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017)	X		X		X			X	X			X	X			X	X			X

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142S04 Stack # 142 P902	VOC Total HAP	➢ Polymer, Solvent, reactant ➢ Condenser coolant flow ≥ 20 gal/min ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ Design control efficiency of 95% ➢ VOC: 0.745 lbVOC/batch, 2.0 TPY, 0.4 TPM ➢ Total HAP: 0.001 lbtotalHAP/batch, 0.001 TPY; 0.001 TPM ➢ MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017)	X		X		X			X	X			X	X			X	X			X
142S05	VOC	➢ Polymer, water ➢ None ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17)	X			X	X			X	X			X	X			X	X			X
142 S05a 142 S05b 142 S05c 142 S05d	VOC	➢ Polymer, water ➢ The materials contained in each of the stabilization tanks shall not contain any HAPs. ➢ ≤ 1.086 pounds of VOC emitted per batch per stabilization tank. ➢ MassDEP Approval #18-AQ01P-0000032 (4/17/2018)	X			X	X			X	X			X	X			X	X			X
142S06	VOC, PM	➢ Polymer ➢ Scrubber alone: ≥ 95% scrubber efficiency (alone) for ethanol, ≥ 70% scrubber efficiency (alone) for ethyl acetate & butyraldehyde, ➢ Scrubber & Biofilter: ≥ 85% reduction by scrubber & biofilter ➢ MassDEP RACT Approval (6/20/1989); 310 CMR 7.18(17); MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987); MassDEP Approval #1-P-92-006 (5/26/1992); MassDEP Approval #1-P-01-068 (12/19/2001); MassDEP Approval #1-P-03-008 (3/25/2003); MassDEP Approval #1-P-09-0-02 (05/26/2009 and 9/14/2011); 40 CFR 64, Compliance Assurance Monitoring	X		X		X			X	X		X		X			X	X			X

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142S07	PM	➢ Polymer ➢ No visible emissions ➢ MassDEP 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); MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
142S08	VOC	➢ Solvents ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ MassDEP Approval #1-P-07-024 (08/28/2007); MassDEP Approval #WE-15-008 (8/19/2015); MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017)	X		X		X			X	X			X	X			X	X			X
142S09	VOC	➢ Off-grade ethyl acetate ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ MassDEP Approval #1-P-07-024 (08/28/2007); MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017)	X			X	X			X	X			X	X			X	X			X
142S10	VOC	➢ Reactant ➢ Coolant supply temperature ≤ 29°F ➢ MassDEP Approval #1-P-07-024 (08/28/2007); MassDEP Approval Transmittal #46118 (1/15/1993); MassDEP Plan Approval #1-P-96-054 (12/20/1996); MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017)	X			X	X			X	X			X	X			X	X			X

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142S11	VOC	➢ Solvent ➢ ≥ 95% scrubber efficiency (alone) for ethanol ➢ ≥ 70% scrubber efficiency (alone) for ethyl acetate & butyraldehyde ➢ ≥ 85% reduction by scrubber & biofilter ➢ MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), MassDEP Approval #1-P-92-006 (5/26/1992), Transmittal #46119 (12/18/1992; AMENDED 10/8/1993), MassDEP Approval #1-P-03-008 (3/25/2003), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X		X		X			X	X			X	X			X	X			X
142S12	VOC	➢ Solvent ➢ None ➢ MassDEP RACT Approval (6/20/1989)	X			X	X			X	X			X	X			X	X			X
142S13	VOC	➢ Solvent ➢ Chiller coolant temp. @ chiller supply/outlet ≤ 29°F ➢ MassDEP RACT Approval (6/20/1989); MassDEP Approval #WE-15-008 (8/19/2015); MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017)	X			X	X			X	X			X	X			X	X			X
142S14	VOC	➢ Solvent ➢ None ➢ MassDEP RACT Approval (6/20/1989)	X			X	X			X	X			X	X			X	X			X
142S15	VOC	➢ Solvent ➢ Coolant supply temperature ≤ 29°F ➢ Reduce total storage tank HAP emissions by 95 % or more by weight by using packed bed scrubber and chilled condenser ➢ MassDEP Approval #1-P-07-024 (08/28/2007); MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011); MassDEP Plan Approval #WE-16-018, Transmittal #X272440 (2/21/2017); 40 CFR 63 Subpart FFFF (Group 1 Storage Tank)	X			X	X			X	X			X	X			X	X			X

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142S08 (stack #TP6 T600) & 142S13 (stack #TP6 T600)	VOC	➢ Ethyl acetate ➢ coolant flow rate ≥ 24.8 gallons per minute ➢ ethyl acetate throughput: ≤ 45,620,000 lbs/yr, ≤ 9,124,000 lbs/mo. ➢ total of standing, working and loading VOC losses: 1.91 TPY, 0.38 TPM ➢ MassDEP Approval #WE-15-008 (8/19/2015)	X			X	X			X	X			X	X			X	X			X
Process Wide	VOC, HAP	➢ LDAR Standards not specifically listed in Table 3					X		X		X		X		X			X				
099 S001	PM	➢ Polyvinyl butyral resin ➢ ≥ 99.5% control ➢ MassDEP Approval #1-P-89-114 (5/7/90); 310 CMR 7.03(12) and (22); MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
099 S002	PM	➢ Polyvinyl butyral scrap plastic sheet ➢ ≥ 99.8% control for particles ≥ 50 µm ➢ MassDEP Approval #PV-83-IF-002 (3/7/83); MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
099 S003	PM	➢ Polyvinyl butyral scrap plastic sheet ➢ ≥ 99.8% control for particles ≥ 50 µm, ➢ ≥ 99.5% control ➢ MassDEP Approval #PV-83-IF-003 (3/17/83); MassDEP Approval #1-P-89-114 (5/7/90); MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011); and 310 CMR 7.03(22)	X		X		X			X	X			X	X			X	X		X	
099 S005a	VOC	➢ Polyvinyl butyral resin & plasticizers ➢ ≥ 85% VOC control ➢ ≥ 150 gallons/minute water flow ➢ MassDEP Approval #PV-88-IF-004 (5/20/88); MassDEP RACT Approval (6/20/89); MassDEP Approval #1-P-93-007 (4/16/93); MassDEP Approval #1-P-09-002 (5/26/2009 and 9/14/2011); MassDEP Approval #1-P-10-013 (6/9/2010)	X			X	X			X	X			X	X		X		X			X

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099 S005b	VOC	➢ Polyvinyl butyral plastic sheet ➢ ≤ 4.9 tpy from SV process exhaust ➢ MassDEP Approval #1-P-01-007 (4/24/01)	X			X	X			X	X			X	X			X	X			X
099 S006	VOC	➢ Polyvinyl butyral resin & plasticizers ➢ ≥ 85% VOC control ➢ ≥ 150 gallons/minute water flow ➢ MassDEP Approval #PV-88-IF-004 (5/20/88); MassDEP RACT Approval (6/20/89); MassDEP Approval #1-P-93-007 (4/16/93); MassDEP Approval #1-P-09-002 (5/26/2009 and 9/14/2011); MassDEP Approval #1-P-10-013 (6/9/2010)	X			X	X			X	X			X	X		X		X			X
092S01	VOC	➢ VOCs & resins ➢ ≥ 95% VOC control ➢ MassDEP Approval #1-P-08-005 (4/11/2008); MassDEP Approval #1-P-99-020 (8/2/1999), MassDEP Approval #PV-85-IF-010 (1/16/1985), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
092S02	VOC	➢ Butyraldehyde ➢ ≥ 90% VOC control over each unloading operation ➢ MassDEP Approval #PV-85-IF-010 (1/16/1985)	X			X	X			X	X			X	X			X	X			X
092S03	PM	➢ Resins ➢ ≥ 99.98% particulate control, ≤ 0.02 gr/ACF outlet loading ➢ MassDEP Approval #PV-85-IF-010 (1/16/1985), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
092S04	PM	➢ Resins ➢ ≥ 99.98% particulate control, ≤ 0.47 lb/hr ➢ MassDEP Approval #1-P-90-045 (7/12/1990), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X		X		X			X	X			X	X			X	X			X

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092S05	PM	➢ Resins ➢ ≥ 99.98% particulate control, ≤ 0.01 gr/ACF; ≤ 1.9 pounds/hour ➢ MassDEP Approval #PV-85-IF-010 (1/16/1985), MassDEP Approval #1-P-99-020 (8/2/1999), MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
Process Wide	VOC, HAP	➢ Resin ➢ ≤ 82.3 x 106 lb resin production/year ➢ ≤ 8.00 x 106 lb resin production/month ➢ MassDEP Approval #1-P-08-005 (04/11/2008); 40 CFR 63 Subpart FFFF (Group 2 Batch Process Vent and Group 2 Wastewater)	X			X	X			X	X			X	X			X	X			X
Process Wide	VOC	➢ LDAR Standards not specifically listed in Table 3					X			X												
IOF01	VOC	➢ Degreasing solvent ➢ Solvent use rate < 100 gallons/month for each cold cleaning degreaser ➢ Regulation 310 CMR 7.03(8), Regulation 310 CMR 7.18(8)	X			X	X			X	X			X	X			X	X			X
136 S001 Saflex Pilot Plant	PM & condensable hydrocarbons	➢ Resins ➢ ≥ 99.5% PM control (Resin separator / receiver) ➢ No more than four (4), 4.5" pilot scale extruders operating at one time ➢ Regulation 310 CMR 7.03(12) Dry Material Storage Silo; MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X
IO-BIAB	PM, VOC	➢ Resins ➢ ≥ 99.5% PM control (Resin separator / receiver) ➢ No visible emissions ➢ Regulation 310 CMR 7.03(22); Regulation 310 CMR 7.10; Title V OP Renewal Amendment (X265785); MassDEP Approval #1-P-09-002 (5/26/2009 and 9/14/2011)	X			X	X			X	X			X	X			X	X			X

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099 S046	Sulfur in fuel, NMHC & NOx, CO, PM, various	➢ No.2 fuel oil ➢ Sulfur in fuel: ≤15 ppm (≈0.0015% sulfur by weight) ➢ NMHC & NOx, CO, PM: Operate engine no more than 300 hours per year (in any consecutive rolling 12 month total). This operating restriction includes normal maintenance and testing procedures as recommended by the manufacturer. ➢ Regulation 310 CMR 7.26(42) ➢ Various: ≤ 100 hours per calendar year for maintenance and testing; ➢ Various: ≤ 50 hours per calendar year for non-emergency situations; ➢ Various: ≤ 100 hours per calendar year total for maintenance/testing and non-emergency situations. ➢ Regulation 40 CFR 60.4211(f)(3)	X			X	X			X	X			X	X			X	X			X
092 S34; 150 S33; 089 S038; 011 S001; 096 S001	Various	➢ Various fuels (kerosene, propane, and No. 2 fuel oil) ➢ Various: ≤ 100 hours per calendar year for maintenance and testing; ➢ Various: ≤ 50 hours per calendar year for non-emergency situations; ➢ Various: ≤ 100 hours per calendar year total for maintenance/testing and non-emergency situations. ➢ Regulation 40 CFR 63.6640(f)(3)	X			X	X		X		X		X		X			X	X			X
092 S34; 150 S33; 089 S038; 011 S001; 096 S001; 099 S046	Smoke, Opacity	➢ Various fuels (kerosene, propane, and No.2 fuel oil) ➢ Smoke: No. 1 of "the Chart" no more than 6 minutes during any one hour, no time to exceed No. 2 of "the Chart" ➢ Regulation 310 CMR 7.06(1)(a) ➢ Opacity: ≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour ➢ Regulation 310 CMR 7.06(1)(b)	X			X	X			X	X			X	X			X	X			X
089 S038; 150 S12; 011 S001	Sulfur in fuel	➢ No.2 fuel oil ➢ ≤500 ppm (≈0.05% sulfur by weight) ➢ 310 CMR 7.05(1)(a)1.: Table 1	X			X	X			X	X			X	X			X	X			X

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Special Terms & Conditions & Generally Applicable Requirements		Special Terms and Conditions: Table 8			
EU# or Facility Wide	Special Term or Condition or Generally Applicable Requirement	Currently in Compliance?		Compliance Was	
		Y	N	I	C
FW	Solutia 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.	X			X
FW	Solutia 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.	X			X
FW	Until its termination, the Consent Decree: United States of America versus Solutia, Inc. and INEOS Melamines, LLC, dated May 2, 2013, will be appended as Attachment A of this Operating Permit. Upon termination of this Consent Decree, the terms contained therein will have no further force or effect on the Permittee or the Facility covered by this Permit. Prior to termination, Permittee shall continue to report deviations from the Consent Decree as required by the Section V.N. of the Consent Decree and those deviations need not be included in the semiannual and annual reports required by General Conditions 10 and 25 of this Permit.	N/A	N/A	N/A	N/A
150 S01 150 S02 150 S03	In accordance with 40 CFR 63.7495(b), each EU shall comply with the National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016.	X			X
150 S01 150 S02 150 S03	In accordance with 40 CFR 63.7500(a)(1), each EU shall meet the applicable work practice standard in Table 3 of Subpart DDDDD.	X			X
150 S01 150 S02 150 S03	In accordance with 40 CFR 63.7500(a)(3), at all times, the Permittee shall operate and maintain each EU in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.	X			X
150 S01 150 S02 150 S03	In accordance with 40 CFR 63.7540(a), the Permittee shall demonstrate continuous compliance with the work practice standards in Table 3 of 40 CFR Part 63 Subpart DDDDD.	X			X
150 S01 150 S02 150 S03	In accordance with 40 CFR 63 Subpart DDDDD, including the General Conditions referenced in Table 10 of that Subpart, comply with all applicable Subpart DDDDD provisions in accordance with the applicable timelines.	X			X
142S01 142S04 142S08 142S09 142S10 142S13 142S15	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.	X			X

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142S02 142S03 142S06 142S07 142S11 142S15	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X		X	X
142 S02 (All Stacks) 142 S03 (Stack # 142 P630)	In accordance with 40 CFR 63 Subpart FFFF, 63.2460(a) and Table 2, reduce HAP emissions by 98 % or more by use of a control device.	X		X	
142S04	In accordance with the MassDEP RACT Approval (June 20, 1989), Solutia shall ensure that the hydrolysis reactors are equipped with properly functioning mechanical seals.	X			X
142S04	In accordance with 40 CFR Part 64, Compliance Assurance Monitoring (CAM), the Permittee shall maintain a monitoring plan to provide a reasonable assurance of compliance with the emission limitations and/or standards.	X			X
142S04 (Stack # 142 P901 142 P902)	In accordance with MassDEP Plan Approval #WE-16-018 Trans. #X272440 (2/21/17), the glycol chilled condenser for each unit shall operate at all times that the associated process equipment is operating.	X			X
142S04 (Stack # 142 P901 142 P902)	In accordance with MassDEP Plan Approval #WE-16-018 Trans. #X272440 (2/21/17), maintain the Hydrolysis Reactor #2 and the PVA Slurry Tank #3 in accordance with the manufacturer's recommendations and, to the extent practicable, maintain and operate each piece of equipment in a manner consistent with good air pollution control practice for minimizing emissions.	X			X
142S04 (Stack # 142 P901 142 P902)	In accordance with MassDEP Plan Approval #WE-16-018 Trans. #X272440 (2/21/17), inspect and maintain components on the Hydrolysis Reactor #2 and the PVA Slurry Tank #3 (including mechanical seals) per the Facility's Leak Detection and Repair (LDAR) Program.	X			X
142S04 (Stack # 142 P901 142 P902)	In accordance with MassDEP Plan Approval #WE-16-018 Trans. #X272440 (2/21/17), operate and maintain each chilled Condenser in accordance with the manufacturer's recommendations or in accordance with other written procedures in order to ensure that it is operated at its design heat transfer efficiency.	X			X
142S05 142S12 142S14	In accordance with the MassDEP RACT Approval (June 20, 1989), there are no controls or restrictions for these emission units under the MassDEP RACT Approval (6/20/1989).	X			X
142 S05a 142 S05b 142 S05c 142 S05d	In accordance with MassDEP Plan Approval #18-AQ01P-0000032 (#WE-18-003) dated 4/17/18, the Permittee shall EU 142 S05a, EU 142 S05b, EU 142 S05c and EU 142 S05d shall consist of the equipment specified in Table 1 therein.	X			X
142 S05a 142 S05b 142 S05c 142 S05d	In accordance with MassDEP Plan Approval #18-AQ01P-0000032 (#WE-18-003) dated 4/17/18, the Permittee shall equip each stabilization tank with submerged fill which shall be used when transferring materials during the wash fill/drain steps to each stabilization tank.	X			X

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142 S05a 142 S05b 142 S05c 142 S05d	In accordance with MassDEP Plan Approval #18-AQ01P-0000032 (#WE-18-003) dated 4/17/18, the Permittee shall equip each stabilization tank with an interlock which prevents the filling of the tank if the liquid level reaches approximately 91.5% of the tank capacity.	X			X
142 S05a 142 S05b 142 S05c 142 S05d	In accordance with MassDEP Plan Approval #18-AQ01P-0000032 (#WE-18-003) dated 4/17/18, the Permittee shall maintain EU 142 S05a, EU 142 S05b, EU 142 S05c and EU 142 S05d in accordance with the manufacturer's recommendations and must, to the extent practicable, maintain and operate each piece of equipment in a manner consistent with good air pollution control practice for minimizing emissions.	X			X
142S06 and 142S11 (scrubber only operation)	If operating under MassDEP RACT Approval (6/20/1989), MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), and 310 CMR 7.18(17): 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 MassDEP in writing.	N/A	N/A	N/A	N/A
142S06 and 142S11 (scrubber only operation)	If operating under MassDEP RACT Approval (6/20/1989), MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), and 310 CMR 7.18(17): 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 ≥ 215 gpm is supplied to the scrubber, and the scrubber shall be alarmed at a flow of ≤ 180 gpm.	N/A	N/A	N/A	N/A
142S06 and 142S11 (scrubber only operation)	If operating under MassDEP RACT Approval (6/20/1989), MassDEP Approval #PV-85-IF-012 (10/29/1985; amended 8/25/1987), and 310 CMR 7.18(17): 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.	N/A	N/A	N/A	N/A
142S06 and 142S11 (biofilter operation)	If operating under MassDEP Approval #1-P-92-006 (5/26/1992): In accordance with MassDEP Approval #1-P-01-068 (12/19/2001), Solutia shall ensure that total flow to any one cell of the biofilter shall be ≤ 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.	X			X
142S06 and 142S11 (biofilter operation)	If operating under MassDEP Approval #1-P-92-006 (5/26/1992): Solutia shall ensure that the compost bed depth is ≥ 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.	X			X
142S06 and 142S11 (biofilter operation)	If operating under MassDEP Approval #1-P-92-006 (5/26/1992): In accordance with MassDEP 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.	X			X
142S06 and 142S11 (biofilter operation)	If operating under MassDEP Approval #1-P-92-006 (5/26/1992): In accordance with the Compliance Assurance Monitoring Plan Revision No. 1 dated October 16, 2009, the portable FID instrument shall be calibrated and maintained per the manufacturer's instructions.	X			X

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142 S08 142S13 (both routed to stack #TP6 T600)	Operate the Doyle & Roth Model #VS126106H Shell & Tube Condenser with a control efficiency ≥ 90% when controlling VOC emissions from the breathing and working losses of the bulk ethyl acetate tank (EU 142 S08) and ≥ 84.7% when controlling VOC emissions from Loading Docks 7 and 9 (EU 142 S13).	X			X
142 S08 142S13 (both routed to stack #TP6 T600)	Implement standard operating procedures to ensure that the loading of the ethyl acetate storage tank and loading of the railcars or tank trucks will not occur at the same time.	X			X
142 S08 142S13 (both routed to stack #TP6 T600)	Insulate the lines carrying the chilled fluid to the condenser (RACT Compliance Plan Conditional Approval; Final, June 20, 1989).	X			X
142 S08 142S13 (both routed to stack #TP6 T600)	Update the facilities Leak Detection and Repair (LDAR) Program document to include the new vent line components.	X			X
142S15	In accordance with 40 CFR 63 Subpart FFFF, 63.2470(a) and Table 4, reduce HAP emissions by 95 % or more by use of a control device.	X			X
142S15	In accordance with MassDEP 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 MassDEP RACT Approval (6/20/1989) permit conditions for that emission vent are only performed during the non-ozone months; that is between September 15th and May 1st. Any scheduled routine maintenance of this type that must occur during the "ozone season" must be authorized by the MassDEP in writing.	X			X
142 S02 142 S03 142 S15	In accordance with 40 CFR §63.2525(j), maintain a Start-up, Shut-down and Malfunction Plan per 40 CFR 63.6(e)(3).	X			X
142 S02 142 S03 142 S15	In accordance with 40 CFR Part 63, Subpart FFFF, maintain records as specified in 40 CFR §63.10(b).	X			X
Process Wide – South Butvar	In accordance with 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart, comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines.	X			X
Process Wide – South Butvar	In accordance with 40 CFR §63.2450(l), exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of 40 CFR 63.998(b)(2)(iii) and (b)(6)(i)(A).	X			X
099S002	In accordance with MassDEP Approval 1-P-03-007 (3/11/03), process in the polyvinyl butyral E-Line (extrusion line) up to 100% polyvinyl butyral resin originating from the South Butvar (solvent based) process.	X			X

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099 S001 099 S002 099 S003 099 S005a 099 S006	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X
099S005a 099S006	In accordance with MassDEP 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.	X			X
099S005a 099S006	In accordance with MassDEP Approval #PV-88-IF-004 (5/20/88), Solutia Inc. shall ensure that the SOMP for the scrubber is adhered to.	X			X
092 S01 092 S03 092 S04 092 S05	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009 and 9/14/2011) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X
FW – RB9100	In accordance with MassDEP Approval #1-P-89-020 (June 28, 1989), Solutia Inc. shall submit to the MassDEP by January 15th 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 Solutia's model.	X			X
FW – RB9100	In accordance with MassDEP 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.	X			X
FW – RB9100	In accordance with MassDEP 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.	X			X
FW – RB9100	In accordance with 40 CFR 63 Subpart FFFF, including the General Conditions referenced in Table 12 of that Subpart, comply with all applicable Subpart FFFF provisions in accordance with the applicable timelines, although no emission limits apply.	X			X
IO F01	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 solvent used in a cold cleaning degreaser has have a vapor pressure that does not exceed 1.0 mm Hg measured at 20 °C. This requirement shall not apply to the following: a. cold cleaning degreasers used in special and extreme solvent metal cleaning; b. cold cleaning degreasers for which the owner or operator has received MassDEP approval of a demonstration that compliance with the requirement to use a solvent with a vapor pressure of 1.0 mm Hg or less at 20/C will result in unsafe operating conditions; and c. cold cleaning degreasers that are located in a permanent total enclosure having control equipment that is designed and operated with an overall VOC control efficiency of 90% or greater.	X			X
IO F01	In accordance with 310 CMR 7.18(8)(a), not cause, suffer, allow or permit emissions of VOC from a cold cleaning degreaser unless any leaks are repaired immediately, or the degreaser shut down.	X			X

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IO F01	The following requirements shall apply unless the cold cleaning degreaser is a sinklike work area with a remote solvent reservoir with an open drain area less than 100 square centimeters: a. Each cold cleaning degreaser is equipped with a cover that is designed to be easily operated with one hand; 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; c. Each cold cleaning degreaser is designed with: i. a freeboard ratio of 0.75 or greater; or ii. a water blanket (only if the solvent used is insoluble in and heavier than water); or iii. an equivalent system of air pollution control which has been approved by the MassDEP and EPA; 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; and 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 upwind at the same elevation as the tank lip.	X			X
136 S001; IO-BIAB	In accordance with MassDEP Approval #1-P-09-002 (05/26/2009) for a Startup, Shutdown, and Malfunction Plan for particulate control equipment and scrubbers, follow the procedures described therein, including but not limited to monitoring, recordkeeping, notifications/reporting, control device alarms, emission observations, control device repair, process operations, and emission unit shutdown.	X			X
092 S34 089 S038 011 S001 150 S33 096 S001	In accordance with 40 CFR 63.6625(i) and (j) for compression ignition and spark ignition engines, respectively, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c. of 40 CFR 63, Subpart ZZZZ.	X			X
092 S34 089 S038 011 S001 150 S33 096 S001	In accordance with 40 CFR 63, Subpart ZZZZ, Table 2.c, minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.	X			X
092 S34 089 S038 011 S001 150 S33 096 S001	In accordance with 40 CFR 63, Subpart ZZZZ, Table 6.9., the Permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow the Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	X			X
092 S34 089 S038 011 S001 150 S33 096 S001	In accordance with 40 CFR §63.6665, the emission units are subject to the General Provisions of 40 CFR Part 63.1-63.15 (Subpart A) as indicated in Table 8 to Subpart ZZZZ of 40 CFR Part 63. Compliance with all applicable provisions therein is required.	X			X
099 S046	In accordance with 40 CFR §63.6590(c),the Permittee shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII for compression ignition engines.	X			X
099 S046	In accordance with 40 CFR 60.4206, the Permittee shall operate and maintain EU 099 S046 to achieve the emission standards as required in §60.4205(b) over the entire life of the engine.	X			X

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099 S046	In accordance with 40 CFR 60.4207(b), the Permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.	X			X
099 S046	In accordance with 40 CFR 60.4211(a), the Permittee shall: a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; b. Change only those emission-related settings that are permitted by the manufacturer; and c. Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.	X			X
099 S046	In accordance with 40 CFR 60.4211(c), the Permittee shall comply by installing an engine certified to the emission standards of §60.4205(b). The engine must be installed and configured according to the manufacturer's emission-related specifications.	X			X
099 S046	In accordance with 40 CFR 60.4211(g)(2), if the Permittee does not install, configure, operate, and maintain EU 099 S046 according to the manufacturer's emission-related written instructions, the emission-related settings are changed in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: a. keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. b. conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after emission-related settings are changed in a way that is not permitted by the manufacturer.	X			X
099 S046	In accordance with 40 CFR 60.4214(b), if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.	X			X
099 S046	In accordance with 310 CMR 7.26(42)(d)2., the engine shall be operated and maintained in accordance with the manufacturer's recommended operating and maintenance procedures.	X			X
099 S046	In accordance with 310 CMR 7.26(42)(d).3., each engine and its associated equipment shall be constructed, located, operated and maintained in a manner to comply with the requirements of 310 CMR 7.10: Noise.	X			X
099 S046	In accordance with 310 CMR 7.26(42)(d)4.a., the engine shall utilize an exhaust stack that discharges so as to not cause a condition of air pollution (310 CMR 7.01(1)). Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted combustion gases, including but not limited to rain protection devices "shanty caps" and "egg beaters." Any emission impacts of exhaust stacks upon sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices. Such practices include without limitation: a. Avoiding location that may be subject to downwash of the exhaust; and b. Installing stack(s) of sufficient height in locations that will prevent and minimize flue gas impacts upon sensitive receptors.	X			X
099 S046	In accordance with 40 CFR §60.4218, EU 099 S046 is subject to the General Provisions of 40 CFR Part 63.1-63.15 (Subpart A) as indicated in Table 8 to Subpart IIII of 40 CFR Part 60. Compliance with all applicable provisions therein is required.	X			X

Facility Name: Solutia Indian Orchard Plant Facility Address: 730 Worcester St SSEIS No.: 042/0086 Transmittal No. X228552 Date of Issuance 10/23/2009

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Alternative Operating Scenarios		Monitoring: Table 4				Testing: Table 4				Record Keeping: Table 5				Reporting: Table 6			
EU# or Facility	Alternative Operating Scenario	Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was	
		Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C
	No alternate operating scenarios at this facility																

Emissions Trading		Monitoring: Table 4				Testing: Table 4				Record Keeping: Table 5				Reporting: Table 6			
EU# or Facility Wide	Emissions Trading	Currently in Compliance		Compliance Was		Currently in Compliance		Compliance Was		Currently in		Compliance Was		Currently in Compliance		Compliance Was	
		Y	N	I	C	Y	N	I	C	Y	N	I	C	Y	N	I	C
	No emisisons trading at this facility																