West Virginia Department of Environmental Protection
Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
E. I. du Pont de Nemours and Company
Washington Works
Fluoropolymers
R30-10700001-2010 (Part 2 of 14)

John A. Benedict
Director

Issued: December 1, 2010 • Effective: December 15, 2010
Expiration: December 1, 2015 • Renewal Application Due: June 1, 2015

Permit Number: **R30-10700001-2010 (Part 2 of 14)**
Permittee: **E. I. du Pont de Nemours and Company**
Facility Name: **Washington Works**
Business Unit: **Fluoropolymers**
Permittee Mailing Address: **P. O. Box 1217, Washington, WV 26181-1217**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Washington, Wood County, West Virginia
Facility Mailing Address:	P. O. Box 1217, Washington, WV 26181-1217
Telephone Number:	(304) 863-4240
Type of Business Entity:	Corporation
Facility Description:	Chemical and Plastic Resins Manufacturing
SIC Codes:	2821
UTM Coordinates:	442.368 km Easting • 4,346.679 km Northing • Zone 17

Permit Writer: Carrie McCumbers

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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Appendix A: R13-2365E Attachments (C1P Area)

Appendix B: R13-1953H Attachments (C2 Area)

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Appendix E: R13-2617D Attachment

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C1P Area				
C1FA	Bin	1986	C1FEE	None
C1FB	Bin	1986	C1FEE	None
C1FC	Bin	2006	C1FCE	None
C1FD	Supply System	1986	C1FEE	None
C1FE	Reactor	1986	C1FEE	C1FEC – Scrubber
C1FF	Bin	1986	C1FFE	None
C1FG	Bin	1986	C1FGE	None
C1FK	Conveying System	1996	C1FSE	C1FKC – Bag Filter C1FSC3 – Scrubber
C1FQ	Reactor	1996	C1FQE	None
			T7IME	T7IMC – Thermal Converter
C1FR	Ingredient System	1996	C1FRE	None
C1FS	Dryer	1996	C1FSE	C1FSC1 – Baghouse C1FSC2 – Scrubber C1FSC3 – Scrubber
C1FU	Bin	1996	C1FUE	None
C1FV	Extruder	1982	C1FVE1	None
			C1FVE2	None
C1FW	Ingredient System	1996	Area	None
			C1FWE	None
C1GA	Bin	2006	C1GAE	None
C1GB	Bin	2006	C1GBE	None
C1GC	Bin	2006	C1GCE	None
C1GD	Tank	1996	C1GDE	None
C1GH	Ingredient System	1996	C1FQE	None
			T7IME	T7IMC – Thermal Converter
C1GJ	Conveying System	1996	C1GJE	C1GJC – Bag Filter
C1GK	Sump	1996	Area	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C1GN	Conveying System	1996	C1FEE	C1GNC1 – Baghouse C1GNC2 – Filter
C1GP	Conveying System	1996	C1GPE	C1GPC – Baghouse
C1GQ	Conveying System	1982	C1GQE	C1GQC – Bag Filter
C1GR	Cleaning Station	1982	C1GRE	None
C1GS	Blender	1988	C1GPE	C1GPC – Baghouse
C1GT	Blender	1988	C1GPE	C1GPC – Baghouse
C1GV	Hopper	1982	C1GVE	None
C1GX	Ingredient System	1996	C1GXE	None
~~C1GY~~	~~Dryer~~	~~1982~~	~~Area~~	~~None~~
			~~C1FQE~~	~~None~~
			~~C1FWE~~	~~None~~
			~~C1GXE~~	~~None~~
			~~C1GYE~~	~~None~~
C2DH	Bin	1996	C2DHE	None
CINP	Recovery System	2005	C1NPE	CINPC
CINPC	Scrubber	2005	CINPC	None
C2 Area				
C2DA	Tank	1982	C2DAE	None
C2DE	Tank	1982	C2DAE	None
C2DG	Reactor	2008	C2EJE	None
~~C2DJ~~	~~Process Tank~~	~~1996~~	~~C2DJE~~	~~C2DJC – Bag Filter~~
C2DK	Process Tank	1996	C2DKE	C2DKC – Bag Filter
C2DS	Conveying System	1989	C2DSE	C2DSC – Bag Filter
C2DW	Dryer	1982	C2DTE	C2DWC1 – Bag Filter C2DWC2 – Scrubber C2DTC3 – Scrubber
C2EC	Tank	1982	C2DAE	None
~~C2EE~~	~~Supply System~~	~~NA~~	~~Area~~	~~None~~
C2EF	Reactor	1998	C2EFE	None
C2EG	Process Equipment	1998	C2EGE	C2EGC – Bag Filter

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C2EH	Dryer	1998	C2DTE	C2EHC1 – Bag Filter C2EHC2 – Scrubber C2DTC3 – Scrubber
C2EJ	Supply System	1988	C2EFE	None
			C2EJE	None
C2EN	Conveying System	1998	C2ENE	C2ENC – Bag Filter
C2EQ	Oven	2007	C2EQE	C2EQC – Liquid Ring Vacuum Pump
C2ER	Extruder	1998	C2ERE	None
C2ES	Extruder	1998	T7IME	T7IMC – Thermal Converter
C2ET	Bin	1998	C2ETE	None
C2EU	Elutriator	1998	C2EUE	C2EUC – Bag Filter
C2EV	Packout	1998	C2EVE	None
C2EZ	Loading Station	2006	C2EZE	None
C2KD	Dryer	1998	C2KDE	None
C2KO	Process Equipment	1997	C2KOE1	C2KOC1 – Bag Filter
			C2KOE2	C2KOC2 – Bag Filter
C2KP	Process Equipment	1998	C2KPE	C2KPC – Bag Filter
C2KQ	Sump	1982	Area	None
C2KU	Ingredient System	2005	C2KUE	None
C2KW	Feed Tank	2006	C2DAE	None
C2KX	Storage Tank	2006	C2DAE	None
~~C2KY~~	~~Ion Exchange Column~~	~~2006~~	~~Area~~	~~None~~
~~C2KZ~~	~~Ion Exchange Column~~	~~2006~~	~~Area~~	~~None~~
C3 Area				
C3HA	Tank	1992	C3HPE	None
C3HB	Tank	1992	C3HPE	None
C3HD	Tank	1993	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HG	Tank	1992	C3HG2E	None
			C3HGE	C3HGC – Scrubber
C3HH	Tank	1992	C3HGE	C3HGC – Scrubber

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C3HI	Reactor	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3HJ	Still Pot	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
			C3HPE	C3HPC - Scrubber
C3HK	Tank	1992	C3HPE	C3HPC – Scrubber
C3HL	Cylinder	1992	C3HPE	C3HPC – Scrubber
C3HM	Tank	1992	C3HPE	C3HPC – Scrubber
C3HN	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HO	Reactor	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HP	Cylinder	1992	C3HPE	C3HPC – Scrubber
C3HQ	Still Pot	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HS	Tank	1990	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HT	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3HX	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3ID	Tank	1992	C3HPE	None
			T7IME	T7IMC - Thermal Converter
C3IE	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IF	Tank	1992	C3HPE	C3HPC – Scrubber
C3IG	Bulk Loading	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IH	Tank	1995	C3HIE	None
			T7IME	T7IMC – Thermal Converter

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C3IJ	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3IK	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3IL	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3IM	Tank	1992	C3IME	None
C3IN	Tank	1992	C3INE	None
C3IO	Tank	1992	C3IOE	None
C3IQ	Filter	1992	C3IQE	None
			T7IME	T7IMC – Thermal Converter
C3IT	Tank	2001	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IV	Charge Pot	1992	C3HPE	C3HPC – Scrubber
C3IW	Pit	1992	Area	None
C3IX	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IY	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IZ	Tank	2004	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3JA	Filter	2007	C3IPE	None
			T7IME	T7IMC – Thermal Converter
T1, T2, T3, T4, and T7 Areas				
T1BB	Compressor & Intercooler	1997	T7XIE	T7XIC – Scrubber
T1BC	Compressor & Intercooler	1987	T7XIE	T7XIC – Scrubber
T1BD	Compressor & Intercooler	1987	T7XIE	T7XIC – Scrubber
T1BE-BJ	Coolers	2000	T7XIE	T7XIC – Scrubber
T1BP-BT	Storage Tanks	1978	T7XIE	T7XIC – Scrubber
T1BW	Absorber	2001	T7IME	T7IMC – Thermal Converter

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T1BX	Absorber	2001	T7IME	T7IMC – Thermal Converter
T1CA	Furnace	1994	T1CAE	None
			T7XIE	None
TICB	Furnace	1994	T1CBE	None
			T7XIE	None
T1CC	Furnace	1994	T1CCE	None
			T7XIE	None
T1CD	Furnace	2000	T1CDE	None
			T7XIE	None
T1CK, T1LA, T1CL	Aftercoolers	1999-2006	T7XIE	T7XIC - Scrubber
T1CU	Tank	1982	T7XIE	None
T1CV	Dryer	1997	T7IME	T7IMC – Thermal Converter
T1CW	Tank	1989	T7XIE	T7XIC – Scrubber
T1DB-DC	Dryers	1985	T7XIE	None
			T1DBE	None
T1DD-DF	Coolers	2000	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T1DG-DH	Bag Filters	2000	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
TIDI	Vaporizer	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T1DS	Snubber Tank & Compressor Inlet Piping	1997	T7XIE	T7XIC – Scrubber
T1DT	Spare Intercooler	1999	T7XIE	T7XIC – Scrubber
T1DU	Compress Area Common Hi-Press Piping	1997	T7XIE	T7XIC - Scrubber
			T7IME	T7IMC – Thermal Converter
T1EE	Analyzer Vents	1997-2006	T7XIE	None
T1EV	Shipping Trailers	1997	T7XIE	T7XIC – Scrubber
T1GN	Mixed Gas Holder	1985	T1GNE	None
T1JB	Raw Material Unloading	2007	T1JBE	None
T1LB-LE	Raw Material Storage	1955-1997	T7XIE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T1LF	Storage Tank & Vaporizer	1989	T2ERE	T2ERC – Scrubber
T1LH	Feed Pump	1997	T1LHE	None
T1LI	Feed Pump	1997	T1LIE	None
T1XA	Compressor	2000	T1XAE	None
			T7IME	T7IMC – Thermal Converter
			T7XIE	T7XIC - Scrubber
T1XC-C	Absorber	2001	T7IME	T7IMC – Thermal Converter
T1XD	Column	1997	T7XIE	T7XIC - Scrubber
			T7IME	T7IMC – Thermal Converter
T1XG	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T1XO	Column – Feed Condenser	1997	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2EN	Tank Car Loading	2005	T2ERE	T2ERC – Scrubber
T2EO-EP	Tanks	2005	T2ERE	T2ERC – Scrubber
T2ER	Storage Tanks	2005	T2ERE	T2ERC – Scrubber
T2ES	Air Stripper	1997	T2ERE	T2ERC – Scrubber
T2EX	Trailer Loading	2000	T2EXE	None
			T7IME	T7IMC – Thermal Converter
T2EY	Analyzer	2000	T2EYE	None
T2XH, T2XL	Cooler/Absorber	1997	T2ERE	T2ERC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2XJ	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T2XM	Column	1997	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2XN	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T2XQ	Vaporizer	1997	T7XIE	T7XIC – Scrubber
T2XS	Column Feed Cooler	1997	T7XIE	None
T2XT-XU	Adsorption Beds	1997	T2ERE	T2ERC – Scrubber

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T2XV	Cooler Loop	1997	T7XIE	None
T3FB	Furnace	1997	T7XIE	None
T4GB	Storage Tank	1987	T4GBE	None
T4GK	Shipping Containers	1983	T7XIE	None
T4GM	Column	1997	T7XIE	T7XIC - Scrubber
			T7IME	T7IMC – Thermal Converter
T4GO	Recycle Tank	1979	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T4GP	Feed Tank	1983	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T4GQ	Recycle Tank	1983	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T4GS	Column	1997	T7XIE	None
T4GT	Column	1997	T7XIE	None
T4GU	Storage Tanks	1997	T7XIE	None
T4GV	Storage Tank	1997	T7XIE	None
T4GW	Tank	1993	T7XIE	None
T4GX	Tank	1999	T7XIE	None
T4KA	Cylinder Loading	1982	T7XIE	None
T4KB	Feed Tank	1993	T7XIE	None
T4KC	Truck Loading	1982	T7XIE	None
T4KD	Tank Car Loading	1982	T7XIE	None
T4XK	Column	1998	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T7AA	Tank	1985	T7XIE	None
T7AB	Methylene Chloride System Losses	1985	T7ABE	None
T7AK	Cooling Tower	2000	T7AKE	None
T7EI, T7XI	N & S Stillhouse Vacuum System (Misc. Vents)	1997	T7XIE	T7XIC – Scrubber
T7EM	Portable Container Facility	1996	T7EME	None
			T7IME	T7IMC – Thermal Converter
T7IO	Silo	1997	T7IOE	T7IOC – Baghouse

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T7JD	Neutralization Tank	1986	T7JDE	T7JDC – Scrubber
T7JJ	Emergency Generator	2006	T7JJE	None
T5 Area				
T5HA	Heater	1998	T5HAE	None
T5HB	Heater	1998	T5HBE	None
T5HC	Reactor	1992	Area	None
			T5HCE	None
			T5HCE2	None
			T7XIE	None
T5HD	Reactor	1997	Area	None
			T5HDE	None
			T5HDE2	None
			T7XIE	None
T5HF	Mix Station Fume Hood	NA	T5HFE	None
T5HG	Dryer	2001	T5HGE	T5HGC – Cyclone
T5HI	Dryer	2001	T5HIE	T5HIC – Cyclone
T5HK	Tank	1998	T5HKE	T5HKC – Condenser
T5HL	Tank	1998	T5HKE	T5HKC – Condenser
			T5HLE	None
T5HM	Raw Material System	1990	T7XIE	None
T5HN	Raw Material System	2001	Area	None
			T5HCE	None
			T7XIE	None
T5HO	Tank	1989	Area	None
T5HP	Tank	1997	T7XIE	None
T5HT	Tank	1990	T5HTE	None
T5HU	Tank	1990	T5HUE	None
T5HV	Tank	1990	T5HVE	None
T5HW	Tank	1989	T5HCE	None
			T5HWE	None
			T7XIE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T5HX	Tank	1997	T5HDE	None
			T5HXE	None
			T7XIE	None
T5HY	Tank	1995	T5HYE	None
T5HZ	Tank	1998	T5HZE	None
T6 Area				
T6IB	Reactor 6	1985	T6IBE	None
			~~T6IBE2~~	~~None~~
T6IC	Reactor 7	1985	T6ICE	None
			~~T6ICE2~~	~~None~~
T6ID	Reactor 8	1985	T6IDE	None
			~~T6IDE2~~	~~None~~
			T7IME	T7IMC – Thermal Converter
T6IE	Dryer 2	1993	T6IEE	None
			T6IZCE	T6IFC – Packed Bed Scrubber T6IZC – Deep Bed Filter
T6IF	Dryer 3	1989	T6IFE	None
			T6IZCE	T6IFC – Packed Bed Scrubber T6IZC – Deep Bed Filter
T6IG	#2 Float Tank	2001	T6IGE	None
T6IH	#3 Float Tank	1988	T6IGE	None
T6II	#1 Weigh Tank	1985	T6IBE	None
			T6IIE	None
T6IJ	#2 Weigh Tank	1985	T6ICE	None
			T6IJE	None
T6IK	#3 Weigh Tank	1985	T6IDE	None
			T6IKE	None
T6IL	#4 Weigh Tank	1985	T6ILE	None
			T6IUE	None
T6IU	Reactor 9	2000	T6IUE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
			~~T6IUE2~~	~~None~~
			T7IME	T7IMC – Thermal Converter
T6IV	Dryer 1	2001	T6IVE	None
			T6IZCE	T6IFC – Packed Bed Scrubber T6IZC – Deep Bed Filter
T6IW	#1 Float Tank	2000	T6PME	None
T6IX	#1 Chiller Cooler Vent	2001	T6IXE	None
T6IY	#3 Chiller Cooler Vent	1989	T6IYE	None
T6IZ	Accumulator Vent	NA	T6IZE	None
T6JE	Ingredient Tank	1988	T6JEE	None
T6JF	Ingredient Tank	NA	T6JFE	None
T6PA	Head Tank	1988	T6PAE	None
T6PB	Feed System	1985	T6IBE	None
			T6ICE	None
			T6IDE	None
			T6IUE	None
T6PC	Decanter 6	1988	T6PCE	None
T6PD	Decanter 7	1986	T6PDE	None
T6PE	Decanter 8	2000	T6PEE	None
T6PF	Decanter 9	2000	T6PFE	None
T6PG	Stabilization Tank #3	1985	T6PGE	None
T6PH	Stabilization Tank #4	1985	T6PGE	None
T6PI	Feed System	2001	Area	None
			T6IBE	None
			T6ICE	None
			T6IDE	None
			T6IUE	None
T6PJ	Raw Material Feed System	2001	Area	None
			T6IBE	None
			T6ICE	None
			T6IDE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
			T6IUE	None
T6PK	Stabilization Tank	NA	T6PGE	None
T6PL	Process Tank	1998	T6PGE	None
T6PM	Process Tank	2001	T6PME	None
T6PN	Process Tank	2001	T6PNE	None
T6PO	Storage Tank	2001	T6POE	None
T6PP	Storage Tank	2001	T6PPE	None
T6PQ	Formulation Tank	2001	T6PQE	None
T6PR	Fresh Tank	1994	T6PRE	None
T6PS	Melt Tank	2001	T6PSE	None
T6PT	Decanter	1997	Area	None
T6PU	Process Tank	2000	T6PUE	None
T6PV	Process Tank	NA	T6PVE	None
T6PW	Process Tank	1993	T6PWE	None
T6PX	Process Tank	1988	T6PXE	None
T6PY	Supernate Tank	NA	T6PYE	None
T6PZ	Process Tank	1998	T6PZE	None
T6QA	Ion Exchange Columns	2006	T6QAE	None
T6QB	Ion Exchange Columns	2006	T6QBE	None
T6QE	Ion Exchange Columns	2006	T6QEE	None
T6QF	Ion Exchange Columns	2006	T6QFE	None
T6QG	Feed Tank	2006	T6PGE	None
T6QH	Feed Tank	2006	T6PGE	None
T6QI	Knockout Pot	1985	Area	None
T6QJ	#6 Tank	1985	T6IBE	None
T6QK	#7 Tank	1985	T6ICE	None
T6QL	#8 Tank	1985	T6IDE	None
T6QM	#9 Tank	1992	T6IUE	None
T6QN	Blend Tank #1	1985	T6QNE	None
T6QO	Blend Tank #2	1985	T6QOE	None
T6QP	Blend Tank #3	1986	T6QPE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6QQ	Blend Tank #4	1986	T6QQE	None
T6QR	Blend Tank #5	2000	T6QRE	None
T6QS	Blend Tank #6	2000	T6QSE	None
T6QT	Blend Tank #7	2000	T6QTE	None
T6QU	Ingredient Tote #1	NA	T6QUE	None
T6QV	Ingredient Tote #2	NA	T6QVE	None
T6QW	Recovered Ingredient Feed Tank #1	2002	T6QWE	None
T6QY	Recovered Ingredient Feed Tank #2	2002	T6QYE	None
T6QZ	Recovered Ingredient Storage Tank	2002	T6QZE	None
T6RA	Filters	2000	T6RAE	None
T6RB	Reactor Waste Solids Drum	NA	T6RBE	None
T6RC	Coagulator #1	1999	T6RCE	None
T6RD	Coagulator #2	1988	T6RDE	None
T6RE	Coagulator #3	1988	T6REE	None
T6RF	Conveyor #1	2001	T6RFE	None
T6RG	Conveyor #2	1993	T6RGE	None
T6RH	Conveyor #3	1989	T6RHE	None
T6RI	FP Packout	1993	T6RIE	None
T6RJ	Packout Tank #1	2001	T6RJE	None
T6RK	Packout Tank #2	2001	T6RKE	None
T6RL	Ingredient Tank #1	1986	T6RLE	None
T6RM	Ingredient Tank #2	1986	T6RME	None
T6RN	Ingredient Tank #3	1986	T6RNE	None
T6RO	Ingredient Tank #4	1986	T6ROE	None
T6RP	Ingredient Tank #5	1986	T6RPE	None
T6RQ	Ingredient Tank #6	1986	T6RQE	None
T6RR	Ingredient Tank #7	2000	T6RRE	None
T6RS	Ingredient Tank #8	2000	T6RSE	None
T6RT	Ingredient Tank #9	2000	T6RTE	None
T6RU	Ingredient Tank #10	2000	T6RUE	None
T6RV	Ingredient Tank #11	1986	T6RVE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6RW	Ingredient Tank #12	1986	T6RWE	None
T6RX	Ingredient Tank #13	1986	T6RXE	None
T6RY	Ingredient Tank #14	1986	T6RYE	None
T6RZ	Ingredient Tank #15	1986	T6RZE	None
T6SA	Ingredient Tank #16	1986	T6SAE	None
T6SB	WIT Tank	NA	T6SBE	None
T6SC	Cylinder	NA	T6SCE	None
T6SD	Reactor Knockout	1985-2000	T6SDE	None
T6SE	Ingredient Truck Uploading Area	NA	T6SEE	None
Mineral Spirits Parts Washers				
C1LD	Parts Washer	NA	C1LDE	None
T1JG	Parts Washer	NA	T1JGE	None

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Area	Permit Number	Date of Issuance
All	R13-2617D	July 27, 2010
C1P	~~R13-2365D~~ R13-2365E	~~December 16, 2004~~ April 4, 2013
C2	~~R13-1953G~~ R13-1953H	~~June 28, 2007~~ August 31, 2012
C3	R13-2391G	May 26, 2010
T1, T2, T3, T4, and T7	R13-1823I	September 15, 2010
T5	~~R13-1353D~~ R13-1353E	~~March 26, 2010~~ February 21, 2013
T6	~~R13-0815F~~ R13-0815G	~~January 4, 2006~~ October 11, 2012

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_x**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor		
CES	Certified Emission Statement	**PM**	Particulate Matter
C.F.R. *or* CFR	Code of Federal Regulations	**PM_{10}**	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide		
C.S.R. *or* CSR	Codes of State Rules	**pph**	Pounds per Hour
DAQ	Division of Air Quality	**ppm**	Parts per Million
DEP	Department of Environmental Protection	**PSD**	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	**psi**	Pounds per Square Inch
HAP	Hazardous Air Pollutant	**SIC**	Standard Industrial Classification
HON	Hazardous Organic NESHAP		
HP	Horsepower	**SIP**	State Implementation Plan
lbs/hr *or* lb/hr	Pounds per Hour	**SO_2**	Sulfur Dioxide
LDAR	Leak Detection and Repair	**TAP**	Toxic Air Pollutant
m	Thousand	**TPY**	Tons per Year
MACT	Maximum Achievable Control Technology	**TRS**	Total Reduced Sulfur
		TSP	Total Suspended Particulate
mm	Million	**USEPA**	United States Environmental Protection Agency
mmBtu/hr	Million British Thermal Units per Hour		
$mmft^3$/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour	**UTM**	Universal Transverse Mercator
NA *or* N/A	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source 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 (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee 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. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission 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 operation, or operator error.
[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated 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 to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only; 45CSR13, R13-2365, B.9; 45CSR13, R13-2391, B.7; 45CSR13, R13-1353, B.1; 45CSR13, R13-0815, B.3]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. **Fugitives.** No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1.; 45CSR13, R13-2365, B.10; 45CSR13, R13-1953, 4.1.18; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1]**

3.1.10. **Fugitives.** The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. **[45CSR§7-5.2; 45CSR13, R13-2365, B.10; 45CSR13, R13-1953, 4.1.19; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1]**

3.1.11. **MACT Applicability Determination Records.** An owner or operator of a stationary source that emits (or has the potential to emit, without considering control(s) one or more hazardous air pollutants who determines that the source is not subject to a relevant standard or other requirement established under this part, shall keep a record of the applicability determination as specified in §63.10(b)(3) of 40 C.F.R. 63 Subpart A. **[45CSR34 and 40 C.F.R. §63.10(b)(3)]**

3.1.12. **APFO Emission Sources.** The following table provides a listing of all ammonium perfluorooctanoate (CAS 3825-26-1 and hereby abbreviated as APFO) sources at the DuPont Washington Works Facility. Hourly and annual APFO emission limits are provided in 4.1.1 for C1FSE; 5.1.5 for C2DTE; 7.1.3 for T7IME; 8.1.1 for T5HGE and T5HIE; 9.1.5 for T6PME, T6IGE,T6IZCE, T6IVE, T6IEE, T6IFE, T6IXE, T6IYE; and R30-10700001-2003 Research and Development (Part 11 of 14) and R13-2692 for the semi-works application.

Table 3.1.12 – APFO Emission Sources

Business Unit	Process Area	Emission Point ID No.
Fluoropolymers (2 of 14)	C1P	C1FSE
	C2	C2DTE
	T5	T5HGE
		T5HIE
	T6	T6IXE
		T6IYE
		T6IZCE
		T6PME
		T6IGE
		T6IVE
		T6IEE
		T6IFE
	T7	T7IME
Research and Development (11 of 14)	NA	R022EEF006
	NA	R022EEF089

[45CSR13, R13-2365, R13-1953, R13-1823, R13-1353, and R13-0815; and R30-10700001-2003 Research and Development (Part 11 of 14) and R13-2692]

3.1.13. **APFO Screening Level.** In accordance with Consent Order GWR-2001-019 and the Additional Obligations Notice dated March 13, 2003, the permittee shall limit the annual average modeled exposure levels for ammonium perfluorooctanoate (CAS 3825-26-1 and hereby abbreviated as APFO) to no more than the C-8 Assessment of Toxicity (CAT) Team recommended airborne screening level of 1 $\mu g/m^3$ in any area not subject to controlled access by the permittee when modeled using Industrial Source Complex 3 Short Term (ISC3ST) modeling software. As stated in the referenced order, the 1 $\mu g/m^3$ screening level will be the basis for compliance until such time as the United States Environmental Protection Agency promulgates a standard for APFO that is applicable for emissions from this facility.

For the purpose of modeling, the emissions of APFO from sources associated with Fluoropolymers Production (2 of 14) shall include the emission points and discharge specifications as shown in the following table 3.1.13.

Table 3.1.13 – APFO Emission Point Specifications

Emission Point	Discharge Area (ft^2)	Height Above Grade (ft)	Volume Flow Rate (ACFM)	Temp (°F)	UTM Coordinates	
					Northing (m)	Easting (m)
C1FSE	0.3734	115	600-1000	41-140	4346744	441787
C2DTE	0.785	100	1200-3000	31-131	4346758	441941
T5HGE	3.02	63	8,057	123	4346757	441928
T5HIE	2.09	64	2,800	300	4346758	441926
T6PME	0.72	44.5	1,100	Ambient	4346824	442127
T6IGE	3.02	43	9,465	Ambient	4346814	442101
T6IZCE	12.57	170	12,000	124	4346843	442098
T6IVE	3.56	45	12,622	250	4346810	442131
T6IEE	2.09	70	11,931	248	4346816	442112
T6IFE	2.09	70	8,779	198	4346805	442103
T6IXE	3.98	45	2,000	140	4346829	442128
T6IYE	2.19	45	344	140	4346815	442101
T7IME	1.39	150	1,788	86	4346847	442025

Note: Variations in temperature and volumetric flow rate reflect changes in ambient conditions, feed rates, and feed compositions.

[45CSR13, R13-2365, A.4 and A.5; 45CSR13, R13-1953, 4.1.6 and 4.1.8; 45CSR13, R13-1823, 4.1.21 and 4.1.23; 45CSR13, R13-1353, A.7 and A.8; 45CSR13, R13-0815, A.6 and A.7]

3.1.14. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. **[45CSR§7-4.12; 45CSR13, R13-2365, B.10; 45CSR13, R13-1953, 4.1.17; 45CSR13, R13-2391, B.8; 45CSR13, R13-1823, 4.3.4.; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1]**

3.1.15. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. **[45CSR§7-9.1; 45CSR13, R13-2365, B.10; 45CSR13, R13-1953, 4.1.20; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1]**

3.1.16. **45CSR21.** The permittee shall comply with all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points identified in Attachment A of Permit R13-2617 (Appendix E of this Permit).

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.1.1; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.1.17. **45CSR21.** The permitted sources identified in Appendix E and recognized as being subject to 45CSR21 shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix E, are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following: **[45CSR13, R13-2617, 4.1.2; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

3.1.17.1. The permittee shall maintain the aggregated hourly and annual VOC control efficiency of 90% or greater, on a site-wide basis, for all existing sources listed or required to be listed as part of the original facility-wide Reasonably Available Control Measures (RACM) plan, as identified in Appendix E. **[45CSR13, R13-2617, 4.1.2.1; 45CSR§21-40.3.a.1 (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

3.1.17.2. On or after May 1, 1996, construction or modification of any emission source resulting in a maximum theoretical emissions (MTE) of VOCs equaling or exceeding six (6) pounds per hour and not listed or required to be listed in the facility-wide RACM plan shall require the prior approval by the Director of an emission control plan that meets the definition of reasonable available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All sources constructed or modified on or after May 1, 1996 shall be subject to the following: **[45CSR13, R13-2617, 4.1.2.2; 45CSR§21-40.3.c (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-2617, 4.1.2.2.a; 45CSR§21-40.4.e (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

b. The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 3.1.17.1. **[45CSR13, R13-2617, 4.1.2.2.b; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

3.1.17.3. If a modification to an existing source with current MTE below the threshold of six (6) pounds per hour of VOCs causes an increase in the MTE that results in the source exceeding the six (6) pounds per hour threshold for the first time, the source shall be subject to RACT in accordance to Section 3.1.17.2. **[45CSR13, R13-2617, 4.1.2.3; 45CSR§21-40.3.c (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

3.1.17.4. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed as part of the facility-wide RACM plan, that results in an increase in VOC emissions of any amount, shall require the prior approval by the Director of an emission control plan that meets the definition of RACT on a case-by-case basis for both fugitive and non-fugitive VOC emissions from the source. All sources modified on or after May 1, 1996 shall be subject to the following; **[45CSR13, R13-2617, 4.1.2.4; 45CSR§21-40.3.c (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

a. The RACT control plan (s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-2617, 4.1.2.4.a; 45CSR§21-40.4.e (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

b. The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s). **[45CSR13, R13-2617, 4.1.2.4.b; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

c. The MTE and associated emission reductions of the modified source shall be recalculated as part of the site-wide aggregate hourly and annual emissions reduction requirements to demonstrate compliance with the minimum 90% reduction rate as set forth in 3.1.17.1 of this permit. **[45CSR13, R13-2617, 4.1.2.4.c; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

3.1.17.5. In the event the facility-wide RACM plan is modified to delete an existing emission source, and any associated pollution control equipment, due to the source being permanently removed from service or reassigned to service not subject to the requirements of 45CSR§21-40, the MTE shall be recalculated to demonstrate that the 90% facility-wide VOC reduction requirement set forth in Section 3.1.17.1 is still being met. In the event such a modification results in the site-wide aggregate hourly and annual emissions reduction being recalculated to a rate less than 90%, the RACM plan shall be revised to include all new and/or modified sources and their associated control technologies constructed on or after May 1, 1996, in order to meet the requirements set forth in 3.1.17.1. **[45CSR13, R13-2617, 4.1.2.5; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

3.1.17.6. In the event a source and associated emission point identified in Appendix E is subject to the New Source Performance Standards (NSPS) of 40 C.F.R. 60, the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40 C.F.R. 61, or the Maximum Achievable Control Technology (MACT) standards of 40 C.F.R. 63, then compliance with such requirements as defined in the affected 45CSR13 permit shall demonstrate compliance with the RACT requirements set forth in R13-2617. **[45CSR13, R13-2617, 4.1.2.6; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]**

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

3.1.18. **45CSR27.** The permitted sources identified in Appendix E and recognized as being subject to 45CSR27 shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix E are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following: **[45CSR13, R13-2617, 4.1.3; 45CSR13, R13-1823, 4.1.25]**

3.1.18.1. The permittee shall employ the best available technology (BAT) for the purpose of reducing toxic air pollutants (TAP) associated with the applicable sources and emission points identified in Appendix E. **[45CSR13, R13-2617, 4.1.3.1; 45CSR§27-3.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]**

3.1.18.2. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routing leakage from those sources and their associated equipment identified in Appendix E as operating in TAP service. **[45CSR13, R13-2617, 4.1.3.2; 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]**

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

3.1.19. **45CSR27.** In the event a source and associated emission point identified in Appendix E are subject to the MACT standards of 40 C.F.R. 63, then compliance with the applicable MACT requirements identified in the affected 45CSR13 permit shall demonstrate compliance with the BAT requirements set forth in 3.1.18.

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.1.4; 45CSR§27-3.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]

3.1.20. The facility has engaged in a 112(j) "equivalent emission limitation by permit" application review process with DAQ. Therefore, all boilers and process heaters located at this facility are subject to 112(j) "equivalent emission limitation by permit", including T1CA, T1CB, T1CC, and T1CD, unless US EPA promulgates a standard pursuant to 40 C.F.R. 63 for industrial, commercial, institutional boilers and process heaters prior to a final decision by DAQ. All boilers and process heaters must be addressed by the Part 2 112(j) "equivalent emission limitation by permit" application submittal for case-by-case MACT and contain information required in 40 C.F.R. §63.53(b). This information was submitted to DAQ by the September 30, 2009 deadline. A copy of all correspondence related to this review must be submitted to both WVDEP-Division of Air Quality, and Chief of Permits and Technical Branch, US EPA Region III, Mail Code 3AP11, 1650 Arch Street, Philadelphia, PA, 19103-2029. **[45CSR34, 40 C.F.R. §63.52]**

3.1.21. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Appendix E and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-2617, 4.1.5; 45CSR13, R13-1953, 4.1.23; 45CSR13, R13-1823, 4.1.26]**

3.2. Monitoring Requirements

3.2.1. **APFO Modeling.** As a threshold test for demonstrating compliance with the screening level described in 3.1.13, the actual annualized APFO emissions from the APFO sources in R13-2365, R13-1953, R13-1823, R13-1353, and R13-0815 shall be no greater than the permitted APFO emission limits set forth by 4.1.1, 5.1.5, 7.1.3, 8.1.1, and 9.1.5.

In the event such actual annual APFO emissions exceed the permitted annual APFO emission limits or additional APFO sources not currently covered by a permit in accordance to 45CSR13 are identified, compliance with the screening level described in 3.1.13 shall be demonstrated by modeling actual annual APFO emissions from all sources at the facility.

In the event the permittee proposes a change in APFO emission parameters for equipment covered by R13-2365, R13-1953, R13-1823, R13-1353, R13-0815, or additional APFO sources not currently covered by a permit in accordance to 45CSR13, compliance with the screening level described in 3.1.13 shall be demonstrated by modeling permitted annual APFO emissions from all sources at the facility, including emissions related to such proposed changes.

Modeling of facility-wide actual or permitted APFO emissions from all APFO emission sources shall use Air Dispersion Modeling in accordance with Appendix W to 40 C.F.R. 51 (Guidelines on Air Quality Models), on-site meteorology data (1996 or more recent calendar year), and the most current and quantifiable stack-specific actual or permitted APFO emissions, as appropriate, as well as physical stack parameters.

All records specified above shall be maintained according to the conditions specified in 40 C.F.R. 63.10(b)(1) and shall be certified by a Responsible Official upon request or submittal to the Director, or his/her duly authorized representative.

[45CSR13, R13-2365, B.7; 45CSR13, R13-1953, 4.1.7; 45CSR13, R13-1823, 4.1.22.; 45CSR13, R13-1353, B.9; 45CSR13, R13-0815, B.5]

3.2.2. **45CSR21.** The permittee shall implement and maintain leak detection and repair (LDAR) programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to 45CSR§21-40 producing a product or products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of 45CSR§21-37 or alternate procedures approved by the Director. Procedures approved by the Director, 40 C.F.R. 60, Subpart VV, 40 C.F.R. 61, Subpart V, 40 C.F.R. 63, Subpart H, 40 C.F.R. 63, Subpart TT, 40 C.F.R. 63, Subpart UU, 40 C.F.R. 65, Subpart F, and 40 C.F.R. 265, Subpart CC. This requirement shall apply to all units identified in Appendix E irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63.

Note: The Attachment A listing only for those sources in the Fluoropolymers Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.2.1; 45CSR§21-40.3.a.2 (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.2.3. **45CSR27.** The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Appendix E in order to reduce the emissions of TAP in accordance with the requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." Compliance with 40 C.F.R. 63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR§27-4 – "Fugitive Emissions of Toxic Air Pollutants."

Note: The Attachment A listing only for those sources in the Fluoropolymers Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.2.2; 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]

3.2.4. **45CSR21.** In the event a source and associated emission point identified in Appendix E are subject to the MACT standards of 40 C.F.R. 63, then compliance with any applicable LDAR program set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the monitoring requirements set forth in this permit.

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.2.3; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13]

3.3.2. **45CSR21.** Manufacturing process units may be exempted upon written request of the permittee to the Director. Exempted units are exempted from the frequency of testing as described in 45CSR§21-37, however, LDAR testing of this unit or certification of emission using approved fugitive emission factors will be required every three years, or upon request by the Director or his duly authorized representative. Waiver or scheduling of LDAR testing every three years may be granted by the Director if written request and justification are submitted by the permittee. Units exempted from testing are not exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verifications by the permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced.

[45CSR13, R13-2617, 4.3.1; 45CSR§21-40.3.a.2 (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.3.3. **45CSR21.** In the event a source and associated emission point identified in Appendix E are subject to the MACT standards of 40 C.F.R. 63, then compliance with the applicable LDAR testing requirements set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the LDAR testing requirements set forth in this permit.

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.3.2; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;
e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-2617, 4.4.1; 45CSR13, R13-1953, 4.4.1; 45CSR13, R13-1823, 4.4.1]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. **Fugitives.** The permittee shall monitor all fugitive particulate emission sources as required by 3.1.9 to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained on site stating the types of fugitive particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.
[45CSR§30-5.1.c.; 45CSR13, R13-1953, 4.4.7]

3.4.5. **Fugitives.** The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by 3.1.10 applied at the facility.
[45CSR§30-5.1.c.; 45CSR13, R13-1953, 4.4.8]

3.4.6. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2617, 4.4.3; 45CSR13, R13-1823, 4.4.3; 45CSR13, R13-1953, 4.4.3]

3.4.7. **45CSR21.** Unless granted a variance pursuant to 45CSR§21-9.3, or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40 C.F.R. §63.6(e) or another applicable Section of 40 C.F.R. 63, the owner or operator of the facility shall operate all emission control equipment listed Appendix E as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shutdown or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR§21-9.3 with respect to all periods of non-compliance with the emission limitations set forth in the affected 45CSR13 permits and the emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment.

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.4.4; 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.4.8. **45CSR27.** The permittee shall maintain records of the results of all monitoring and inspections, emission control measures applied, and the nature, timing, and results of repair efforts conducted in accordance to 45CSR§27-10 and set forth in the affected 45CSR13 permits as identified in Appendix E.

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, and R13-0815, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.4.5; 45CSR13, R13-1823, 4.1.25]

3.4.9. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. **[45CSR13, R13-1953, 4.4.2; 45CSR13, R13-1823, 4.4.2; 45CSR13, R13-2617, 4.4.2]**

3.4.10. **40 C.F.R. 63, Subpart GGGGG.** The permittee's site remediation activities are not subject to the requirements of 40 C.F.R. 63 Subpart GGGGG, except for the recordkeeping requirements in 3.4.10.2, provided that the permittee meets the requirements specified in paragraphs 3.4.10.1. through 3.4.10.2, and 40 C.F.R. §63.7881(c)(3).

3.4.10.1. The permittee determines that the total quantity of the HAP listed in Table 1 to 40 C.F.R. 63 Subpart GGGGG that is contained in the remediation material excavated, extracted, pumped, or otherwise removed during all of the site remediations conducted at your facility is less than 1 megagram (Mg) annually. This exemption applies the 1 Mg limit on a facility-wide, annual basis, and there is no restriction to the number of site remediations that can be conducted during this period.

3.4.10.2. The permittee must prepare and maintain at the facility written documentation to support the determination that the total HAP quantity in the remediation materials for the year is less than 1 Mg. The documentation must include a description of the methodology and data used for determining the total HAP content of the remediation material.

[45CSR34; 40 C.F.R. §63.7881(c)]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review (3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for

the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. **[45CSR§30-5.3.e.]**

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A.]**

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary. **[45CSR§30-5.1.c.3.B.]**

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement. **[45CSR§30-4.3.h.1.B.]**

3.5.10. **45CSR21.** The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) days of notification by the Director that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 1, 1996) has occurred. Such plan shall include those sources listed in Appendix E as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.

Note: The Attachment A listing only for those sources in the Fluoropolymers Production Area is provided in Appendix E.

[45CSR13, R13-2617, 4.5.1; 45CSR§40.4.c.1 (State-Enforceable only); 45CSR13, R13-2365, B.8; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, B.2]

3.5. Compliance Plan

3.6.1. None.

3.6. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

a. 40 C.F.R. 60 Subpart K - "Standards of Performance For Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978." Tanks in the Fluoropolymer Production Unit containing petroleum liquids constructed, relocated, or modified during these dates have a storage capacity less than the applicability threshold.

b. 40 C.F.R. 60 Subpart Ka - "Standards of Performance for Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984." Tanks in the Fluoropolymer Production Unit containing petroleum liquids constructed, relocated, or modified during these dates have a storage capacity less than the applicability threshold.

c. 40 C.F.R. 60 Subpart Kb - "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984." Tanks in the Fluoropolymer Production Unit containing volatile organic liquids constructed, relocated, or modified after July 23, 1984 have a storage capacity less than the applicability threshold.

d. 40 C.F.R. 60 Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." Fluoroproducts facilities do not produce as intermediates or final products any of the materials listed in §60.489.

e. 40 C.F.R. 60 Subpart DDD - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry." The Fluoroproducts production facilities do not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.

f. 40 C.F.R. 60 Subpart NNN - "Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations." The Fluoroproducts facilities do not have a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate.

g. 40 C.F.R. 60 Subpart RRR - "Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes." The Fluoroproducts facilities do not have a process unit that produces any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate.

h. 40 C.F.R. 61 Subpart V - "National Emission Standards for Equipment Leaks (Fugitive Emissions Sources)." Applies to sources in VHAP service as defined in §61.241. VHAP service involves chemicals that are not used in Fluoroproducts manufacture.

i. 40 C.F.R. 63 Subpart H - "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." 40 C.F.R. 63 Subparts F, G, and H do not apply to manufacturing process units that do not meet the criteria in §§63.100(b)(1), (b)(2), and (b)(3).

j. 40 C.F.R. 63 Subpart JJJ - "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins. Fluoroproducts manufacturing does not produce the materials listed in §63.1310.

k. 40 C.F.R. 82 Subpart B - "Protection of Stratospheric Ozone." Requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing equipment need to be licensed. The Fluoroproducts production facility does not conduct motor vehicle maintenance involving CFCs on site.

l. 40 C.F.R. 63, Subpart EEEE – "National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)." Storage tank T5HY has a design capacity of less than 18.9 cubic meters (5,000 gallons) and is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. It is only subject to the recordkeeping requirements of 40 C.F.R. §63.2343(a). Storage tank T7AA is an existing tank with a design capacity greater than or equal to 18.9 cubic meters (5,000 gallons) and less than 189.3 cubic meters (50,000 gallons) storing an organic liquid with an annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid less than 27.6 kilopascals (4.0 psia). Since the annual average true vapor pressure of the total Table 1 organic HAP is less than 4.0 psia, this tank is not required to be controlled under 40 C.F.R. 63, Subpart EEEE and is only subject to the notification, recordkeeping, and reporting requirements of 40 C.F.R. §§63.2343(b)(1) through (3). The unloading systems MCE and MCS are used for unloading when maintenance or inspection is required and are not an affected source under 40 C.F.R. 63, Subpart EEEE as specified in 40 C.F.R. §63.2338(c)(3). Since the tanks do not require control and the unloading systems are not affected sources, 40 C.F.R. §63.2350(c) does not require DuPont to develop a written startup, shutdown, and malfunction (SSM) plan for the tanks or unloading systems. Also, since the equipment leak detection requirements of 40 C.F.R. §63.2346(c) only apply if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 of 40 C.F.R. 63, Subpart EEEE, and none of the tanks or transfer racks are required to be controlled, DuPont is not subject to the leak detection and repair requirements of 40 C.F.R. 63, Subpart EEEE.

4.0 Source-Specific Requirements [C1P Area]

4.1. Limitations and Standards

4.1.1. Emissions to the atmosphere shall not exceed the hourly and annual emission limits as set forth in Table 4.1.1.

Table 4.1.1 - Emission Limits

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
~~C1CHE~~	~~C1CG (cylinder)~~ ~~C1CH (reactor)~~	~~C1CHC (scrubber)~~	~~PM_{10}[2]~~ ~~HF~~	~~0.1~~ ~~0.17~~	~~0.02~~ ~~0.113~~
C1FCE	C1FC (bin)	N/A	PM VOC	0.10 0.10	0.30 0.15
C1GAE	C1GA (bin)	N/A	PM VOC	0.~~1~~08 0.~~1~~04	
C1GBE	C1GB (bin)	N/A	PM VOC	0.~~1~~08 0.~~1~~04	
C1GCE	C1GC (bin)	N/A	PM VOC	0.~~1~~08 0.~~1~~04	
C1FEE	C1FA (bin) C1FB (bin)	N/A	PM_{10}[2] HF	0.~~3~~27 0.~~42~~02	0.23 0.~~208~~01
	C1FD (supply cylinder)	N/A			
	C1FE (reactor)	C1FEC (scrubber)			
	C1GN (cube conveyor: C1GN to C1FA & C1FB)	C1GNC1 (baghouse) C1GNC2 (baghouse)			
C1FFE	C1FF (bin)	N/A	PM VOC	0.10 0.~~2~~12	0.30 0.15
C1FGE	C1FG (bin)	N/A	PM VOC	0.10 0.~~2~~12	
C1FQE	C1FQ (reactor) C1GH (ingredient feed system) ~~C1GY (dryer)~~	N/A	VOC ODC Acetonitrile	38.~~6~~54 ~~1.0~~0.93 0.01	21.~~30~~00 0.05 0.01
C1FSE	C1FS (dryer)	C1FSC1 (baghouse) C1FSC2 (scrubber) C1FSC3 (scrubber)	PM_{10} APFO[1] VOC	0.2~~28~~3 0.220 0.65	0.5~~57~~6 0.543 1.60
	C1FK (conveying system)	C1FKC (baghouse) C1FSC3 (scrubber)			
C1FUE	C1FU (bin)	N/A	PM_{10}	0.20	0.22
C1FVE1	C1FV (extruder)	N/A	VOC PM_{10}[2] HF	0.43 0.10 0.01	0.14 0.15 0.~~0~~01
C1FVE2	C1FV (extruder)	N/A	VOC HF	0.~~5~~43 1.63	0.08 0.11~~4~~
C1FWE	C1FW (ingredient feed system) ~~C1GY (dryer)~~	N/A	VOC	~~59.4~~ 26.55	~~0.66~~ 0.29

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
C1GDE	C1GD (tank)	N/A	VOC ODC Acetonitrile	1.89 0.108 0.01	2.30 0.01 0.01
C1GJE	C1GJ (conveying system)	C1GJC (baghouse)	PM_{10}	0.987	0.11
~~C1GK (~~area emissions~~)~~	C1GK (sump) CIFW (ingredient feed system)	N/A	VOC ODC Acetonitrile	1.94 0.108 0.01	0.1921 0.01 0.01
C1GPE	C1GP (conveying system) C1GS (blender #1) C1GT (blender #2)	C1GPC (baghouse)	PM	0.13	0.183
C1GQE	C1GQ (conveying system)	C1GQC (baghouse)	PM_{10}	0.10	0.13
C1GRE	C1GR (burnout station)	N/A	VOC HF	0.01 0.55	0.01 1.1162
C1GVE	C1GV (hopper)	N/A	PM_{10}	0.20	0.22
C1GXE	C1GX (ingredient system charge pot) ~~C1GY (dryer)~~	N/A	VOC	~~3.8~~ 1.89	~~0.31~~ 0.29
~~C1GYE~~	~~C1GY (dryer) (both stack and area emissions)~~	~~N/A~~	~~VOC~~	~~29.1~~	~~0.46~~
C1NPE	CINP (Recovery System)	CINPC (scrubber)	VOC	0.21	0.90

Note: Emission limits for hydrogen fluoride (HF) include emissions of hydrogen fluoride and several non-HAP fluorinated compounds which react to form hydrogen fluoride.

[1] Ammonium Perfluorooctanoate (CAS 3825-26-1)

[2] Particulate emissions from these emission points will only occur given an anticipated process chemistry change. The permittee shall notify the DAQ within 30 calendar days of a process change that results in particulate emissions from these emission points.

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points ~~C1CHE~~, C1FCE, C1GAE, C1GBE, C1GCE, C1FEE, C1FFE, C1FGE, C1FSE, C1FUE, C1FVE1, C1GJE, C1GPE, C1GQE, and C1GVE.
[45CSR13, R13-2365, A.1 and B.10; 45CSR§7-4.1.]

4.1.2. The total of acetonitrile emitted hourly and annually from emission points C1FWE, C1GXE, C1FW, C1FQE, ~~C1GYE, C1GY,~~ C1GDE, and C1GK shall not exceed 0.01 pounds per hour and 15 pounds per year. **[45CSR13, R13-2365, A.2]**

4.1.3. Process equipment C1GH and C1FQ shall be vented to the thermal converter (Equipment ID T7IMC) or the mixed gas holder (Equipment ID T1GN) until the internal pressure of these vessels reach 5 psig. The thermal converter (Equipment ID T7IMC) and mixed gas holder (Equipment ID T1GN) are permitted under permit R13-1823B or an amended permit thereof. **[45CSR13, R13-2365, A.3]**

4.1.4. The following equipment does not emit any regulated air pollutant.

Identification Number	Description
C1FR	Coagulant System

[45CSR13, R13-2365, A.8]

4.1.5. Compliance with all annual emission and/or operating limits shall be determined using a twelve (12) month rolling total. A twelve month rolling total shall mean a sum of any given month of the previous twelve (12) consecutive calendar months. **[45CSR13, R13-2365, B.2]**

4.1.6. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. *(~~C1CHE~~, C1FCE, C1GAE, C1GBE, C1GCE, C1FEE, C1FFE, C1FGE, C1FSE, C1FUE, C1FVE1, C1GJE, C1GPE, C1GQE, and C1GVE)* **[45CSR13, R13-2365, B.10; 45CSR§7-3.1.]**

4.1.7. The provisions of 4.1.6. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(~~C1CHE,~~ C1FCE, C1GAE, C1GBE, C1GCE, C1FEE, C1FFE, C1FGE, C1FSE, C1FUE, C1FVE1, C1GJE, C1GPE, C1GQE, and C1GVE)* **[45CSR13, R13-2365, B.10; 45CSR§7-3.2.]**

4.2. Monitoring Requirements

4.2.1. For the purpose of determining compliance with the opacity limits of Conditions 4.1.6 and 4.1.7, the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7, including, but not limited to, the emission points addressed in 4.1.1. The opacity monitoring and record keeping shall include visual emission checks for all emission points subject to a particulate matter emission limit contained in this permit.

Monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60 Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. For observations for visible emissions from emission point C1FSE (which follows a water scrubber), when condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible; the observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within three (3) days of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.

[45CSR13, R13-2365, A.6]

4.2.2. Compliance monitoring shall be accomplished by a combination of interlocking the upstream to either parameters on these devices or other devices in the same flow path as these devices and parametric monitoring as specified in the tables below.

Table 4.2.2.a - Process Interlock Settings

Control Device ID	Description	Compliance Monitoring & Interlock Settings
~~C1CHC~~	~~Small Reactor Scrubber~~	~~The scrubber incorporates a multi-parameter interlock based on a fluoride sensor located in the exiting gas stack and a pump discharge pressure. In the event that the fluorine sensor measures greater than 1 ppm fluoride or the pump discharge pressure is less than 80 psia, the ingredient supply to the small reactor "C1CH" shall shut down.~~
C1FEC	FP Cube Reactor Scrubber	This control equipment sets its interlocked parameter as the recirculating liquid flow rate. The flow in this stream shall not fall below 40 gallons per minute. Should this interlock be tripped, the ingredient supply to the main reactor "C1FE" shall shut down. Due to the fact that the liquid recirculating flow does not totally define the level of efficiency being maintained by the control equipment, other parameters such as liquid temperature, KOH concentration, and pressure drop are also required to be measured as specified in the parametric monitoring section of this permit.
C1FKC	Isolation Conveying System Bag Filter	The bagfilter shall have a low delta P interlock set at 1" w.c. to detect bag failure, which shuts the system down. A high delta P alarm be set at 12" w.c. to monitor for restricted or overloaded bags.
C1FSC2	Dryer Scrubber	This scrubber shall be interlocked to shut down the feed to the dryer if the pressure drop across the 1 micron filter in the recirculating liquid line exceeds 20 psig. The feed to the dryer shall also be interlocked to shut off, if the exiting gas temperature falls below 70 °C.
C1FSC3	Dryer Scrubber	The water flow rate to the scrubber spray nozzles shall be interlocked at 0.3 gpm, and the feed will not start if the water flow is below this level.
C1GJC	Conveying System #1 Bag Filter	The #1 bag filter incorporates a 10 micron inline filter in between the blower and bag house. The interlocked parameter is the suction pressure measured after the 10 micron filter. If the pressure measured at this location falls below -10.5 mmHg then the relevant blower and conveying system shall shut down.
C1GQC	Conveying System #2 Bag Filter	The #2 bag filter also incorporates a 10 micron inline filter in between the blower and bag house. The interlocked parameter is the suction pressure to the blower. If the pressure measured at this location falls below -9.5 mmHg then the relevant blower and conveying system shall shut down.

Note: ~~With the exception of C1CHC, t~~ These parameters are continuously measured by the DCS, which shall produce an hourly average in order to justify compliance with proper operation of the equipment. ~~While in operation, the permittee shall document hourly readings taken by the operator for C1CHC. These readings shall also include the date and time they were taken, as well as the operator's initials.~~

Table 4.2.2.b - Parametric Monitoring of Control Equipment

Control Device ID	Description	Monitoring Parameter~~, Operating Range, and Measuring Frequency~~
C1FEC	Reactor Scrubber	The concentration of KOH in the scrubber liquor shall not fall below 4.0 wt%. The solution will be sampled after every 5th batch until the KOH concentration falls below 6.0 wt%. Once 6.0 wt% is reached, the solution will be sampled every other batch. The solution can only be recharged twice before having to be replaced. The number of batches through the C1FE reactor must be documented to coincide with the KOH measurement frequency.
C1FEC	Reactor Scrubber	Min. Recirculating KOH flow (gpm)
C1FSC1~~2~~2	Dryer ~~Baghouse~~ Scrubber	~~The hourly average pressure drop across the baghouse shall not exceed a ΔP of 4" w.c.. The pressure drop will be measured, at a minimum, four times per hour.~~ Maximum Circulating Filter Delta P (psig)
C1FSC2	Dryer Scrubber	Min. Exit Gas Temperature (°C)
C1FSC3	Dryer Scrubber	Min. Water Flow (gpm)
C1FKC	Conveying System Bag Filter	Min. Bagfilter Delta P (in. H_20)
C1GJC	Conveying System Bag Filter	Min. Blower Suction Press – C1GJC (in. Hg)
C1GQC	Conveying System Bag Filter	Min. Blower Suction Press – C1GQC (in. Hg)

Note: If any exceedance of the parameters listed above are observed during process operations, corrective action shall be taken immediately. For each exceedance, a corrective action report shall be generated. This report shall include the duration of the malfunction, the corrective actions taken, and an estimate of the emissions generated.

[45CSR13, R13-2365, B.3]

4.3. Testing Requirements

4.3.1. For the purpose of determining compliance with the emission limits set forth on Dryer (C1FS) in 4.1.1, the permittee shall conduct a compliance test of the Dryer (C1FS) ~~either within 180 days of the startup of dryer scrubber (C1FSC3) or within 360 days of issuance of permit R13-2365D (Issued December 16, 2004), whichever is earlier.~~ within ninety (90) days of the date the 60-minute average production rate exceeds 120% of the rate demonstrated during the most recent test.

This test shall be performed at the maximum permittted production rate, or if less, at the maximum sustainable production rate. In the event that the production rate achieved during the testing is less than 80% of the maximum permitted rate, the permittee shall conduct additional testing within ninety (90) days of the date the 60-minute average production rate exceeds 120% of the rate demonstrated during the most recent test.

A test protocol shall be submitted to DAQ for approval within thirty (30) days of the test date. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times at which the tests will be conducted. The results of emission testing shall be submitted to the DAQ within sixty (60) days of the actual test date.

[45CSR13, R13-2365, B.6]

4.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. **[45CSR13, R13-2365, B.10; 45CSR§7-8.1]**

4.3.3. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions. **[45CSR13, R13-2365, B.10; 45CSR§7-8.2]**

4.4. Recordkeeping Requirements

4.4.1. Records of the visible emission observations required in 4.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and if necessary, all corrective actions taken. **[45CSR13, R13-2365, A.6]**

4.4.2. The permittee shall maintain and operate all baghouses, scrubbers, and any other air emissions control devices installed at the C1P Area in accordance with proper operational guidelines to minimize emissions. For all baghouses, scrubbers, and any other air emissions control devices installed in the C1P Area, the permittee shall keep accurate records of filter changes and maintenance activities, and of malfunctions and other operational shutdowns which result in excess emissions.

The referenced baghouses, scrubbers, and other control devices include, but are not limited to those identified as: baghouses C1FSC1, C1FKC, C1GJC, C1GQC, C1GPC; and scrubbers C1FSC2, C1FSC3, C1FEC, and ~~C1CHC~~C1NPC.

For each malfunction or operational shutdown of a control device that results in excess emissions, the following additional information must be recorded, at a minimum:

a. The equipment involved and associated cause of the malfunction.
b. Steps taken to correct the malfunction.
c. Steps taken to minimize emissions during the malfunction.
d. The duration of the malfunction.
e. The estimated increase in emissions during the malfunction.
f. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2365, A.7]

4.4.3. For the purpose of determining compliance with the maximum emission limits set forth in 4.1.1 and 4.1.2, the permittee shall maintain records equivalent to the example record keeping form supplied as Attachment A of Appendix A, and emission reports equivalent to the monthly and annual reports supplied as Attachments B and C of Appendix A. **[45CSR13, R13-2365, B.1]**

4.4.4. The permittee shall maintain a log that documents when an interlock condition listed in 4.2.2 is activated that documents when these interlocks are tripped and the operation continues for greater than thirty (30) minutes in duration. At a minimum, the following information must be documented for each logged malfunction:

a. The equipment involved and associated cause of malfunction.
b. Steps taken to correct the malfunction.
c. Steps taken to minimize emissions during the malfunction.
d. The duration of the malfunction.
e. The estimated increase in emissions during the malfunction.
f. Any changes or modifications to equipment or procedures that would help prevent future recurrence of the malfunction.

In the event that a malfunction occurs that triggers the recordkeeping requirements above and those contained in 4.4.2, the permittee is required to only make one record of the malfunction occurrence to comply with both requirements.

[45CSR13, R13-2365, B.4]

4.4.5. All records required by 4.2.2 shall be condensed to monthly summaries as described below. Monthly summaries shall include for each of the recorded process parameters, whichever is appropriate, the observed maximum or minimum values recorded during actual operations as well as any corrective action reports and reports generated as a result of 4.4.4. **[45CSR13, R13-2365, B.5]**

4.4.6. The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.

Certified copies of these records shall be made available to the Director of the Division of Air Quality or his duly authorized representative upon request. At a time prior to submittal to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement. If these records are considered to contain confidential business information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 – "Confidential Information."

[45CSR13, R13-2365, B.12]

4.5. Reporting Requirements

4.5.1. The following equipment is used on an as-needed basis and may not be operated for extended periods of time. Written notification shall be provided to the DAQ in the event of permanent shutdown of this equipment.

Identification Number	Description
C1GJ	Conveying to packout

[45CSR13, R13-2365, A.9]

4.6. Compliance Plan

4.6.1. None.

5.0 Source-Specific Requirements [C2 Area]

5.1. Limitations and Standards

5.1.1. Emissions to the atmosphere of PM_{10} shall not exceed the hourly and annual emission limits as set forth in Table 5.1.1.

Table 5.1.1 - PM_{10} Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
~~C2DBE~~	~~C2DI, C2KL~~	~~0.4~~	~~0.27~~
~~C2DME~~	~~C2DM~~	~~0.1~~	~~0.05~~
C2DSE	C2DS	0.1~~0~~08	0.01
C2DTE	C2DW, C2EH	0.5~~4~~8	1.03
~~C2EBE1, C2EBE2~~	~~C2EB~~	~~0.4~~	~~0.87~~
C2ENE	C2EN	0.40	~~0.85~~ 1.10
C2EQE	C2EQ	0.01	0.01
C2ERE	C2ER	1.00	2.~~11~~73
~~C2KIE~~	~~C2KI~~	~~0.1~~	~~0.18~~
C2KPE	C2KP	0.10	0.~~09~~11
~~C2DJE~~	~~C2DJ~~	~~0.1~~	~~0.01~~
C2DKE	C2DK	0.01	0.01
C2EGE	C2EG	0.01	0.01
C2EUE	~~C2DO,~~ C2EU	0.01	0.01

Note: For cases where multiple sources vent to a single emission point, the emissions limit of the single emission point shall apply to the combined sum of emissions from each of the associated sources.

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points ~~C2DBE, C2DME,~~ C2DSE, C2DTE, ~~C2EBE1, C2EBE2,~~ C2ENE, C2EQE, C2ERE, ~~C2KIE,~~ C2KPE, ~~C2DJE,~~ C2DKE, C2EGE, ~~and~~ C2EUE, and C2EQE. ~~Compliance with the above PM_{10} emission limit of 0.1 lb/hr for emission unit C2EQ venting through emission point C2EQE is less stringent than 45CSR§7-4.1 hourly particulate emission limit of 0.018 lb/hr and shall not be used to demonstrate compliance.~~

[45CSR13, R13-1953, 4.1.1 and 4.1.14; 45CSR§7-4.1]

5.1.2. Emissions to the atmosphere of VOC shall not exceed the hourly and annual emission limits as set forth in Table 5.1.2.

Table 5.1.2. - VOC Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX	~~12.9~~11.90	2.~~14~~10
~~C2DBE~~	~~C2DI, C2KL~~	~~2.2~~	~~5.07~~
C2DHE	C2DH	~~0.1~~ 3.25	0.1~~0~~3
~~C2DJE~~	~~C2DJ~~	~~3.7~~	~~3.23~~

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DKE	C2DK	~~3.7~~ 6.30	~~3.23~~ 5.51
~~C2DME~~	~~C2DM~~	~~0.3~~	~~0.26~~
C2DTE	C2DW, C2EH	1.10	2.75
~~C2EBE1, C2EBE2~~	~~C2EB~~	~~1.5~~	~~4.25~~
C2EFE	C2EF, C2EJ	75.10	7.~~12~~51
C2EGE	C2EG	~~5.5~~ 9.40	~~5.99~~ 11.60
C2EJE	C2EJ, C2DG	107.~~2~~19	3.~~81~~60
C2EQE	C2EQ	0.60	0.1~~2~~8
C2ERE	C2ER	4.~~5~~00	~~11.91~~ 10.50
C2ETE	C2ET	~~2.3~~ 3.25	~~5.86~~ 11.16
C2EVE	C2EV	67.~~7~~69[1]	0.33
~~C2KAE~~	~~C2KJ~~	~~0.1~~	~~0.01~~
C2KDE	C2KD	0.~~2~~18	0.~~30~~56
~~C2KIE~~	~~C2KI~~	~~0.3~~	~~0.49~~
C2KOE1	C2KO	0.05	0.04
Area	C2KQ	5.50	1.51

Note: For cases where multiple sources vent to a single emission point, the emissions limit of the single emission point shall apply to the combined sum of emissions from each of the associated sources.

[1] Emission limit in pounds per month.

[45CSR13, R13-1953, 4.1.2]

5.1.3. Emissions to the atmosphere of Hydrogen Fluoride shall not exceed the hourly and annual emission limits as set forth in Table 5.1.3.

Table 5.1.3. - HF Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
~~C2DBE~~	~~C2DI, C2KL~~	~~1.12~~	~~0.31~~
C2DHE	C2DH	0.02	0.0~~6~~1
~~C2DME~~	~~C2DM~~	~~0.03~~	~~0.04~~
~~C2EBE1~~ ~~C2EBE2~~	~~C2EB~~	~~0.02~~	~~0.04~~
C2EQE	C2EQ	0.0~~3~~1	0.01
C2ERE	C2ER	0.04	0.1~~0~~3
C2ETE	C2ET	0.02	0.0~~5~~6
~~C2KAE~~	~~C2KJ~~	~~0.01~~	~~0.02~~
C2KDE	C2KD	0.06	0.~~14~~18
~~C2KIE~~	~~C2KI~~	~~0.31~~	~~0.71~~
~~C2KNE~~	~~C2KN~~	~~0.01~~	~~0.01~~
C2KOE1	C2KO	0.02	0.02
C2KUE	C2KU	0.16	0.01

Note 1: For cases where multiple sources vent to a single emission point, the emission limit of the single emission point shall apply to the combined sum of emissions from each of the associated sources.

Note 2: In-process emissions of fluorine and fluorinated compounds that react to form hydrogen fluoride have been reported as hydrogen fluoride.

[45CSR13, R13-1953, 4.1.3]

5.1.4. Emissions to the atmosphere of Hazardous Air Pollutants (HAP) other than Hydrogen Fluoride shall not exceed the annual emission limits as set forth in Table 5.1.4.

Table 5.1.4. - HAP Emission Limits

Emission Point ID	Source ID	Pollutant	Emission Limit (tpy)
C2EFE	C2EF, C2EJ	~~Toluene~~ Total HAPs[1]	0.01
C2EJE	C2DG, C2EJ	~~Toluene~~ Total HAPs[1]	0.01
C2EVE	C2EV	Total HAPs[1]	0.01

Note: For cases where multiple sources vent to a single emission point, the emission limit of the single emission point shall apply to the combined sum of emissions from each of the associated sources.

[1] The emissions of total HAPs identified in Table 5.1.4 of this permit for emission point ID C2EVE, may consist of any one, or a combination of the following pollutants: Di-Sec-Octyl Phthalate (CAS No. 117-81-7), Methanol (CAS No. 67561), and Chromium III Compounds (16065-83-1). The emissions of total HAPs identified in Table 5.1.4 of this permit for emission point ID C2EFE or C2EJE may consist of any one, or a combination of the following pollutants: Toluene, Acetonitrile, HCl.

[45CSR13, R13-1953, 4.1.4]

5.1.5. Emissions to the atmosphere of Ammonium Perfluorooctanoate (APFO) shall not exceed the hourly and annual emission limits as set forth in Table 5.1.5.

Table 5.1.5. - APFO Emission Limits

Emission Point ID	Source ID	Emission Limits	
		(pph)	(tpy)
C2DTE	C2DW, C2EH	0.452	0.983

Note: For cases where multiple sources vent to a single emission point, the emission limit of the single emission point shall apply to the combined sum of emissions from each of the associated sources.

[45CSR13, R13-1953, 4.1.5]

5.1.6. Compliance with all annual emission and/or operating limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean a sum in any given month of the previous twelve (12) consecutive calendar months. **[45CSR13, R13-1953, 4.1.9]**

5.1.7. Process equipment C2ES shall be vented to the thermal converter (Equipment ID No. T7IMC). The thermal converter (Equipment ID No. T7IMC) is permitted under the current revision of permit R13-1823. **[45CSR13, R13-1953, 4.1.10]**

5.1.8. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity except as noted in 5.1.9. *(~~C2DBE, C2DME~~, C2DTE, ~~C2EBE1, C2EBE2,~~ C2EQE, C2ERE, ~~C2KIE,~~ C2KPE, ~~C2DJE,~~ C2DKE, C2EGE, C2EUE, C2EJE, C2EFE)* **[45CSR13, R13-1953, 4.1.11; 45CSR§7-3.1.]**

5.1.9. The provisions of 5.1.8. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(~~C2DBE, C2DME~~, C2DTE, ~~C2EBE1, C2EBE2,~~ C2EQE, C2ERE, ~~C2KIE,~~ C2KPE, ~~C2DJE,~~ C2DKE, C2EGE, C2EUE, C2EJE, C2EFE)* **[45CSR13, R13-1953, 4.1.12; 45CSR§7-3.2.]**

5.1.10. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 3.1.9 is required to have a full enclosure and be equipped with a particulate matter control device. *(C2DSE, C2ENE)* **[45CSR13, R13-1953, 4.1.13; 45CSR§7-3.7]**

5.1.11. Reserved~~No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A of 45CSR7.~~

~~Emission Unit~~	~~Emission Point~~	~~45CSR7 Hourly Particulate Emission Limit pph~~
~~C2EQ~~	~~C2EQE~~	~~0.018~~

~~*(C2EQ venting through C2EQE)*~~

[45CSR13, R13-1953, 4.1.14; 45CSR§7-4.1.]

5.1.12. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B or 45CSR7.

Hydrochloric acid mist and/or vapor for source operations installed after July 1, 1970: 210 mg/m^3

(C2EJE, C2EFE) **[45CSR13, R13-1953, 4.1.15; 45CSR§7-4.2 and Table 45-7B]**

5.1.13. No person shall circumvent the provisions of 45CSR7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration. **[45CSR13, R13-1953, 4.1.16; 45CSR§7-4.3]**

5.2. Monitoring Requirements

5.2.1. For the purpose of determining compliance with 5.1.~~1~~8, the permittee shall perform routine monitoring of bagfilter systems in accordance to the requirements set forth in Table 5.2.1.

Table 5.2.1. - Demonstration of Opacity Standards

Control Device ID	Source ID	Claimed PM Control Efficiency (%)	Compliance Monitoring		
			Activity	Operating Parameter or Permitted Limit	Inspection Frequency
~~C2DJC~~	~~C2DJ~~	~~99.9~~	~~Opacity~~	~~20%~~	~~Monthly~~
C2DKC	C2DK	99.9	Opacity	20%	Monthly
C2DSC	C2DS	99.99	Opacity	20%	Daily (when running)
C2DWC1	C2DW	99.9[1]	Process Interlock	ΔP > 20 psig	None Required
C2EGC	C2EG	99.9	Opacity	20%	Monthly
C2EHC1	C2EH	99.9[1]	Process Interlock	ΔP > 20 psig	None Required
C2ENC	C2EN	99.99	Opacity	20%	Daily (when running)
C2KPC	C2KP	99.99	Opacity	20%	Daily (when running)
C2EUC	~~C2DO~~ C2EU	99.99	Opacity	20%	Monthly

[1] Control efficiency of particulate matter in the form of polymer only. This efficiency does not reflect the ability of this device to capture and control APFO emissions from the associated emission source.

a. Bagfilter systems ~~C2DJC,~~ C2DKC, C2DSC, C2EGC, C2ENC, C2KPC, and C2EUC shall be subject to periodic opacity monitoring as required per 5.2.2.

b. For control systems C2DWC1 and C2EHC1, the process interlock and monitoring requirements are specified in 5.2.4. Compliance with the conditions of 5.2.4 shall demonstrate compliance with this requirement.

c. If any of the listed control equipment is operated outside its respective limits and/or parameter(s), excluding start-ups and shutdowns, corrective actions shall be taken immediately. At a minimum, the information specified in condition 3.4.6. must be documented in a corrective action report for each occurrence and/or deviation from the normal parametric operating range that results in excess emissions.

A log of all routine inspection and maintenance activities for which an inspection frequency is specified in Table 5.2.1., shall be maintained per condition 3.4.9.

[45CSR13, R13-1953, 4.2.1]

5.2.2. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1, 3.2, and 3.7 set forth in conditions 5.1.8, 5.1.9, and 5.1.10, the permittee shall conduct opacity monitoring for all emission points and equipment subject to an opacity limit under 45CSR7, including, but not limited to, the emission points addressed in 5.1.1. The opacity monitoring and record keeping shall include a visual emission evaluation for all emission points subject to a particulate matter emission limit contained in this permit. For emission points ~~C2DJE,~~ C2DKE, C2EGE, and C2EUE monitoring shall be conducted at least once per month with a maximum

of forty-five (45) days between consecutive readings. For emission points C2DSE, C2ENE, and C2KPE monitoring shall be conducted on a daily basis when these emission units are operating.
Visible emission checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within three (3) days of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.

[45CSR13, R13-1953, 4.2.2]

5.2.3. The equipment shown in the following Table 5.2.3 shall be used on an as-needed basis and may not be operated for extended periods of time:

Table 5.2.3. – Intermittent Sources

Source ID	Emission Point ID
C2DS	C2DSE
~~C2KN~~	~~C2KNE, C2KME2~~
C2KO	C2KOE1, C2KOE2

Equipment listed in Table 5.2.3 shall be exempt from the maximum forty-five (45) day period between monitoring sessions as required by 5.2.2. In the event the time between monitoring checks exceed forty-five (45) days, opacity monitoring for the subject equipment shall be conducted during the next available operating session.

[45CSR13, R13-1953, 4.2.3]

5.2.4. Compliance monitoring shall be accomplished by interlocking the upstream to either parameters on these devices or other devices in the same flow path as these devices as specified in the table below.

Table 5.2.4. - Process Interlock Settings

Control Device ID	Description	Compliance Monitoring & Interlock Settings
~~C2DBC~~	~~Scrubber~~	~~The feed to source C2DI, and the power to the equipment will be cut if the calculated HF emissions using the online analyzer and gas flow rate reaches 0.36 pounds per hour. This interlock will also occur if the bypass is opened by mistake. Another source which will cease emissions because of these interlocks is C2KI.~~
C2DWC2 C2EHC2	Dryer Scrubbers	These scrubbers shall be interlocked to shut down the feed to the dryer if the pressure drop across the 10 micron filter in the recirculating liquid line exceeds 20 psig. The feed to the sources will stop if the water flow to these scrubbers drops below 2,000 pounds per hour.
C2DTC3	Scrubber	The scrubber shall be interlocked to shut down if the water feed to the scrubber drops below 1.5 gpm. This will shut down the feeds to all sources feeding the scrubber.

Control Device ID	Description	Compliance Monitoring & Interlock Settings
C2EQC	Vacuum Pump	Source C2EQ is a batch operation. If the water flow to the vacuum pump is less than 2 gpm, the heaters will be turned off.

Note: ~~With the exception of C2EQC, t~~These parameters are continuously measured by the DCS, which shall produce an hourly average in order to justify compliance with proper operation of the equipment. ~~While in operation, the permittee shall document hourly readings taken by the operator(s) for C2EQC. These readings shall include the date and time they were taken, as well as the operator's initials. At such time C2EQC is connected with the DCS, the permittee shall supplant manual documentation with the DCS monitoring documented above.~~

The permittee shall maintain a log using the sample record-keeping format appended as Attachment D of Appendix B that documents when these interlocks are tripped and the operation continues for greater than thirty (30) minutes in duration. At a minimum, the information specified in condition 3.4.6. must be documented for each logged malfunction:

In the event that a malfunction occurs that triggers the record keeping requirements above and those contained in 5.2.1, the permittee is required to only make one record of the malfunction occurrence to comply with both requirements.

[45CSR13, R13-1953, 4.2.4]

5.3. Testing Requirements

5.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. **[45CSR13, R13-1953, 4.3.1; 45CSR§7-8.1]**

5.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions. **[45CSR13, R13-1953, 4.3.2; 45CSR§7-8.2]**

5.3.3. For the purpose of determining compliance with the emission limits of the dryer units C2DW, and C2EH, in 5.1.1, the permittee shall conduct a compliance test of the permitted facility within ninety (90) days of the date the 60-minute average production rate exceeds 120% of the rate demonstrated during the most recent test conducted on November 29, 2004.

A test protocol shall be submitted to DAQ for approval within thirty (30) days of the test date. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times at which the tests will be conducted. The results of emission testing shall be submitted to the DAQ within sixty (60) days of the actual test date.
[45CSR13, R13-1953, 4.3.3]

5.4. Recordkeeping Requirements

5.4.1. For the purpose of determining compliance with the permit limits based on the maximum permitted emission rates as described in 5.1.1, 5.1.2, 5.1.3, 5.1.4, and 5.1.5, the permittee shall perform monthly calculations of the maximum hourly and total annual emissions associated with the operation of all affected sources. In addition, the permittee shall record and document all operating parameters and production records used to calculate the monthly emissions estimates using a format similar to the sample recordkeeping forms appended to R13-1953 as Attachments A, B, and C and located in Appendix B of this permit. **[45CSR13, R13-1953, 4.4.5]**

5.4.2. The permittee shall maintain records of all monitoring data required by 5.2.2., documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent. **[45CSR13, R13-1953, 4.4.4]**

5.4.3. Certified copies of all records required to be maintained under Condition 3.4.2 shall be made available to the Director of the Division of Air Quality or his duly authorized representative upon request. At a time prior to submittal to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement. If these records are considered to contain confidential business information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 – "Confidential Information." **[45CSR13, R13-1953, 4.4.6]**

5.5. Reporting Requirements

5.5.1. The permittee shall provide written notification to the DAQ in the event of permanent shutdown of the equipment listed in Table 5.2.3. **[45CSR13, R13-1953, 4.5.1]**

5.6. Compliance Plan

5.6.1. None.

6.0 Source-Specific Requirements [C3 Area]

6.1. Limitations and Standards

6.1.1. Emissions within the Telomers (C3) Area, as listed in 6.1.3, will be monitored by tracking the total number of batches per year, limited to 3,040, the number of batches per line per year, limited to 1,520, and by keeping track of significant maintenance events as listed in APPENDIX C, Attachment A of this permit. **[45CSR13, R13-2391, A.1]**

6.1.2. During routine operations and during periods of preparation for cleaning and/or maintenance, emissions from the equipment identified in Table 6.1.2 shall be routed through the associated air pollution equipment prior to being released into the atmosphere.

Table 6.1.2

Equipment ID No.	Air Pollution Control Device ID No.	Air Pollution Control Device Type	Emission Point ID No.
C3HG	C3HGC	Scrubber	C3HGE
C3HH	C3HGC	Scrubber	C3HGE
C3HK	C3HPC	Scrubber	C3HPE
C3HL	C3HPC	Scrubber	C3HPE
C3IF	C3HPC	Scrubber	C3HPE
C3HM	C3HPC	Scrubber	C3HPE
C3HP	C3HPC	Scrubber	C3HPE
C3IV	C3HPC	Scrubber	C3HPE

[45CSR13, R13-2391, A.2]

6.1.3. The maximum allowable emissions released to the atmosphere during normal operations shall be limited to the pollutants and associated emission rates shown in Table 6.1.3.

Table 6.1.3

Emission Point ID	VOC		HF		Fluorides		PM10	
	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)
C3HPE	779.2	2.65	---	---	0.04	0.01	0.19	0.08
C3HGE	---	---	---	---	---	---	0.87	0.11
C3HG2E	---	---	---	---	---	---	0.02	0.002
C3HIE	255.7	0.814	---	---	---	---	---	---
C3IPE	0.80	0.58	---	---	---	---	---	---
C3IQE	0.40	0.29	---	---	---	---	---	---
Area	---	---	0.50	0.001	---	---	2.00	0.07

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission units C3HG, C3HH, and C3HK venting through emission points C3HGE, C3HG2E, and C3HPE.

[45CSR13, R13-2391, A.3 and B.8; 45CSR§7-4.1.]

6.1.4. Except for those emissions limited by Table 6.1.3 of this permit, all process vents from the C3 process equipment shown in Table 6.1.4 shall direct process related emissions to the thermal converter T7IMC covered in permit R13-1823B and subsequent revisions.

Table 6.1.4

Equipment ID No.	Description	Equipment ID No.	Description
C3HI	Reactor	C3IP	Filter
C3HO	Reactor	C3IQ	Filter
C3HJ	Still Pot	C3IE	Tank
C3HQ	Still Pot	C3ID	Tank
C3HT	Tank	C3HX	Tank
C3IL	Tank	C3IT	Tank
C3HN	Tank	C3IX	Tank
C3IK	Tank	C3IY	Tank
C3HS	Tank	C3IG	Bulk Loading
C3IJ	Tank	C3IH	Tank
C3HD	Tank	C3JA	Filter

[45CSR13, R13-2391, A.4]

6.1.5. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. *(C3HGE, C3HG2E, and C3HPE)* **[45CSR13, R13-2391, B.8; 45CSR§7-3.1.]**

6.1.6. The provisions of 6.1.5. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(C3HGE, C3HG2E, and C3HPE)* **[45CSR13, R13-2391, B.8; 45CSR§7-3.2.]**

6.2. Monitoring Requirements

6.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (6.1.5 and 6.1.6 of this permit), the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within twenty-four (24) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within twenty-four (24) hours after the visible emission and the sources are operating at normal conditions. (C3HGE, C3HG2E, and C3HPE) **[45CSR§30-5.1.c.]**

6.3. Testing Requirements

6.3.1. None

6.4. Recordkeeping Requirements

6.4.1. Records of the visible emission observations required in 6.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. *(C3HGE, C3HG2E, and C3HPE)* **[45CSR§30-5.1.c.]**

6.4.2. For the purpose of determining compliance with the maximum emission limits set forth in 6.1.3, the permittee shall maintain records equivalent to the example record keeping form supplied as Appendix C, Attachment A to this permit, and emission reports equivalent to the monthly and annual reports supplied as Appendix C, Attachments B and C to this permit. All records shall be documented and maintained in accordance to the requirements set forth by 6.4.7 of this permit. **[45CSR13, R13-2391, B.2]**

6.4.3. The permittee shall maintain certified records that the L2 Scrubber (C3HGC) solution was changed before falling below a concentration of 0.2 percent Na_2SO_3. The solution status is determined by periodic analytical measurements of scrubber composition (a minimum of once every seven days). To show compliance, the concentration of Na_2SO_3 in the scrubbing media shall be recorded for each analysis and each date and time the solution is changed. The periodic analysis results and measured concentration at changeout and the number of times the concentration is less than 0.2 percent shall be recorded monthly. All records shall be documented and maintained in accordance to the requirements set forth by 6.4.7 of the permit. **[45CSR13, R13-2391, B.3]**

6.4.4. The permittee shall maintain certified records that the L3 Scrubber (C3HPC) solution was changed before falling below a concentration of 0.2 percent Na_2SO_3 and KOH/NaOH. The solution status is determined by periodic analytical measurements of scrubber composition (a minimum of once every seven days). To show compliance, the concentration of Na_2SO_3 and KOH/NaOH in the scrubbing media shall be recorded for each analysis and each date and time the solution is changed. The periodic analysis results and measured concentration at changeout and the number of times the concentration is less than 0.2 percent shall be recorded monthly. All records shall be documented and maintained in accordance to the requirements set forth by 6.4.7 of this permit. **[45CSR13, R13-2391, B.4]**

6.4.5. The permittee is subject to 40 C.F.R. 63, Subpart A, Section 1(b)(3), and therefore, must maintain record of the applicability determination performed per 40 C.F.R. 63, Section 10(b)(3). **[45CSR13, R13-2391, B.5]**

6.4.6. For the purpose of determining compliance with the requirement that emission units be routed to control devices as set forth in 6.1.2, the permittee shall confirm and record on a monthly basis that the emission units listed in 6.1.2 were in fact routed to the required control device.
[45CSR§30-5.1.c.]

6.4.7. The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.

Certified copies of these records shall be made available to the Director of the Division of Air Quality or his duly authorized representative upon request. At a time prior to submittal to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement. If these records are considered to contain confidential business information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 - "Confidential Information."

[45CSR13, R13-2391, B.1]

6.5. Reporting Requirements

6.5.1. None.

6.6. Compliance Plan

6.6.1. None.

7.0 Source-Specific Requirements [T1, T2, T3, T4, and T7 Areas]

7.1. Limitations and Standards

7.1.1. Process criteria pollutant emissions shall not exceed the following maximum hourly and annual emission limits:

Emission Point Name	Emission Point ID	Process Criteria Pollutant Emission Limits									
		VOC		SO_2		NO_x		CO		PM_{10}	
		PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY
Furnace	T1CAE	0.05	0.21	0.01	0.03	0.83	3.65	0.70	3.07	0.06	0.28
Furnace	T1CBE	0.07	0.30	0.01	0.04	1.24	5.45	1.04	4.58	0.09	0.42
Furnace	T1CCE	0.07	0.30	0.01	0.04	1.24	5.45	1.04	4.58	0.09	0.42
Furnace	T1CDE	0.07	0.29	0.01	0.04	1.19	5.25	1.00	4.41	0.09	0.40
Dryers	T1DBE	1.17	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mixed Gas Holder	T1GNE	1,380	7.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Raw Material Unloading	T1JBE	0.01	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
North Tank Farm Scrubber	T2ERE	1.74	0.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trailer Loading	T2EXE	0.76	0.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Analyzer	T2EYE	0.26	1.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Storage Tank	T4GBE	1.64	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooling Tower	T7AKE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.3	4.23
Portable Container Facility	T7EME	1.0	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thermal Converter Stack	T7IME	1.45	6.47	0.64	1.77	3.30	5.29	0.57	2.46	0.42	1.96
Silo	T7IOE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.4	0.09
Emergency Generator	T7JJE	0.36	0.09	2.2	0.55	40.4	10.09	6.5	1.61	0.4	0.09
South Central Vent Stack	T7XIE	2,795	34.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§2-4.1.b hourly particulate and 45CSR§10-3.1.e hourly sulfur dioxide emission limits for Furnace T1CD venting through emission point T1CDE; the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission units T7AK and T7IO venting through emission points T7AKE, and T7IOE; the less stringent 45CSR§6-4.1 hourly particulate emission limit for the Thermal Converter T7IMC venting through emission point T7IME. **[45CSR13, R13-1823, 4.1.1.; 45CSR§2-4.1.b; 45CSR§6-4.1; 45CSR§7-4.1; and 45CSR§10-3.1.e]**

7.1.2. Process hazardous air pollutant (HAP) emissions shall not exceed the following maximum hourly and annual emission limits:

Emission Point Name	Emission Point ID	Process Hazardous Air Pollutant Emission Limits											
		Chromium		HCl		HF		Methanol		Methylene Chloride		Toluene	
		PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY
North Tank Farm Scrubber	T2ERE	N/A	N/A	0.6	1.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Storage Tank	T4GBE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.64	0.02
Brine System Losses	T7XIE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	33.95 [a]	N/A	N/A
Portable Container Facility	T7EME	N/A	N/A	N/A	N/A	0.01	0.01	N/A	N/A	N/A	N/A	N/A	N/A
Thermal Converter Stack	T7IME	0.03	0.04	0.06	0.26	0.54	2.51	N/A	N/A	0.01	0.01	0.01	0.01
Neutralization System Scrubber	T7JDE	N/A	N/A	0.12	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Central Vent Stack	T7XIE	N/A	N/A	14.7	1.54	N/A	N/A	6.1	0.03	N/A	N/A	N/A	N/A

[a] This is total methylene chloride losses and includes fugitives.

Compliance with the above hydrochloric acid emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.2 hydrochloric acid concentration limits for emission points T2ERE, T7JDE, and T7XIE. **[45CSR13, R13-1823, 4.1.2.; 45CSR§7-4.2]**

7.1.3. Emissions of ammonium perfluorooctanoate (APFO) from emission point T7IME shall not exceed 0.00037 pounds per hour and 0.0010 pounds per year. [**45CSR13, R13-1823, 4.1.3.]**

7.1.4. Total maintenance emissions from all sources shall not exceed the following maximum annual emission limits:

Pollutant Name	Maintenance Emission Limits (TPY)
VOC	19.8
HCl	0.56
HF	0.01
Methanol	0.46
Toluene	0.03
Acetonitrile	0.01

[45CSR13, R13-1823, 4.1.4.]

7.1.5. All control devices shall be maintained and operated in accordance with the information submitted in Permit Application R13-1823A through R13-1823I. The operating conditions which shall be adhered to include the following:

Thermal Converter - Combustion (T7IMC)	**Value**	**Units**
Minimum Combustion Chamber Temperature	1,800	°F
Maximum Waste Gas Feed Rate	1,910	pph
Maximum Charge Rate (HFC-23 from tank car unloading for CISWI)	As required under CISWI monitoring requirements in Condition 7.2.2.	
Thermal Converter - Scrubber (T7IMC)	**Value**	**Units**
Maximum Gas Stream Flow	As required under the 40 C.F.R. 63, Subpart FFFF monitoring requirements in Condition 7.2.7.	
Minimum Pressure Drop Across the Wet Scrubber	As required under the CISWI monitoring requirements in Condition 7.2.2.	
Minimum Re-circulated Liquor Flow (1st Stage)	40	gpm
Minimum Re-circulation Pump Current (1st Stage) Note: If minimum re-circulation liquor flow indication above is less than 40 gpm (i.e. flow meter malfunction), then the recirculation pump amp load must be maintained above 1.0 amp load as a back-up indication to flow.	1.0	Amps
4th (Final Scrubbing) Stage Requirements:		
Minimum Scrubber Liquor Flow (4^{th} Stage) (Dilute Na_2SO_3, pH adjusted)	The most stringent of the CISWI monitoring requirements in Condition 7.2.2, the 40 C.F.R. 63, Subpart FFFF monitoring requirements in Condition 7.2.7, or the 40 C.F.R. 63, Subpart NNNNN monitoring requirements in Condition 7.2.4.	
Liquor Oxidation/Reduction Potential (4^{th} Stage)	≤ +400	millivolts vs. Ag/AgCl ref. electrode
Minimum Scrubber Liquor pH (4^{th} Stage)	The most stringent of the CISWI monitoring requirements in Condition 7.2.2, the 40 C.F.R. 63, Subpart FFFF monitoring requirements in Condition 7.2.7, or the 40 C.F.R. 63, Subpart NNNNN monitoring requirements in Condition 7.2.4.	
Maximum Scrubber Effluent pH (4^{th} Stage)	As required under the 40 C.F.R. 63, Subpart NNNNN monitoring requirements in Condition 4.2.4.	
Neutralization System Scrubber (T7JDC)	**Value**	**Units**
Scrubber Liquor Flow Range	0.5 to 2	gpm
Daily Confirmation of Blower Operation		

[45CSR13, R13-1823, 4.1.5.]

7.1.6. Column T4XK (column process vent and pot vent) shall not vent to atmosphere when the Thermal Converter (T7IMC) is down. **[45CSR13, R13-1823, 4.1.6.]**

7.1.7. Process emissions from the following equipment shall be directed to the indicated control device:

Equipment	Equipment ID No.	Control Device	Control Device ID No.
Air Stripper	T2ES	North Tank Farm Scrubber	T2ERC
Column	T4GM	Thermal Converter	T7IMC
Column - Pot Vent	T4XK	Thermal Converter	T7IMC
Column - Process Vent	T4XK	Thermal Converter	T7IMC
Storage Tanks	T1BP - T	South Stillhouse Scrubber	T7XIC
Column - Operating Vents	T1XD	South Stillhouse Scrubber	T7XIC
Column	T2XM	South Stillhouse Scrubber	T7XIC
TFE/CO2 System Vents	T2EX	Thermal Converter	T7IMC

[45CSR13, R13-1823, 4.1.7.]

7.1.8. Maintenance emissions from the following equipment shall be directed to the indicated control device:

Equipment	Equipment ID No.	Control Device	Control Device ID No.
Storage Tank & Vaporizer	T1LF	North Tank Farm Scrubber South Stillhouse Scrubber	T2ERC T7XIC
Coolers	T1DD - F	Thermal Converter	T7IMC
Bag Filters	T1DG &H	Thermal Converter	T7IMC
Column	T1XD	Thermal Converter	T7IMC
Column	T4GM	Thermal Converter	T7IMC
Storage Tank	T4GO	Thermal Converter	T7IMC
Storage Tanks	T1BP - T	South Stillhouse Scrubber	T7XIC

[45CSR13, R13-1823, 4.1.8.]

7.1.9. The furnaces T1CA, T1CB, T1CC, and T1CD shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas. **[45CSR13, R13-1823, 4.1.9.]**

7.1.10. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. *(T1CAE, T1CBE, T1CCE, T1CDE)* **[45CSR§2-3.1; 45CSR13, R13-1823, 4.1.10.]**

7.1.11. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors. *(T7IME)* **[45CSR§6-4.6.; 45CSR13, R13-1823, 4.1.11.]**

7.1.12. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. *(T7AKE, T2ERE, T7JDE, and T7XIE)* **[45CSR13, R13-1823, 4.1.12.; 45CSR§7-3.1.]**

7.1.13 The provisions of 7.1.12 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five

(5) minutes in any sixty (60) minute period. *(T7AKE, T2ERE, T7JDE, and T7XIE)* **[45CSR13, R13-1823, 4.1.13.; 45CSR§7-3.2.]**

7.1.14. No person shall cause, suffer, allow, or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device. *(T7IOE)* **[45CSR13, R13-1823, 4.1.14.; 45CSR§7-3.7.]**

7.1.15. **CISWI 111(d)/129.** The permittee shall meet the following emission limitations for the thermal converter and associated scrubber (T7IMC):

Pollutant	Emission Limitation[a]	Averaging Time	Test Method
Cadmium	0.004 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 29)
Carbon monoxide	157 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 10, 10A, or 10B)
Dioxins/furans (toxic equivalency basis)	0.41 nanograms per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 23)
Hydrogen chloride	62 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 26A)
Lead	0.04 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 29)
Mercury	0.47 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 29)
Opacity	10 percent	6-minute averages	Performance test (40 C.F.R. 60, Appendix A, Method 9)
Oxides of nitrogen	388 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Methods 7, 7A, 7C, 7D, or 7E)
Particulate matter	70 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 5 or 29)
Sulfur dioxide	20 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Performance test (40 C.F.R. 60, Appendix A, Method 6 or 6C)

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions.

Compliance with the above 10 percent opacity limit shall demonstrate compliance with the less stringent twenty percent opacity limit of 45CSR§6-4.3.

[45CSR13, R13-1823, 4.1.15; 45CSR§18-7.3 and Table 18-B; 40 C.F.R. §§62.12155 through 62.12157; 45CSR§6-4.3]

7.1.16. **CISWI 111(d)/129.** The emission limitations and operating limits specified under 7.1.15 and the operating limits specified under 7.2.2 shall apply at all times except during CISWI unit startups, shutdowns, or malfunctions. Each malfunction shall last no longer than 3 hours. **[45CSR13, R13-1823, 4.1.16; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]**

7.1.17. **CISWI 111(d)/129.** The permittee shall burn the same types of waste used to establish the operating limits specified under 7.2.2. **[45CSR13, R13-1823, 4.1.17; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]**

7.1.18. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall meet the applicable emission limit and work practice standard in Table 1 to 40 C.F.R. 63, Subpart NNNNN for each emission stream from an HCl process vent; each emission stream from an HCl storage tank; each emission stream from an HCl transfer operation; and each emission stream resulting from leaks from equipment in HCl service.

Table 1 to 40 C.F.R. 63, Subpart NNNNN for Existing Sources

For each…	You must meet the following emission limit and work practice standard
1. Emission stream from an HCl process vent at an existing source	a. Reduce HCl emissions by 99 percent or greater or achieve an outlet concentration of 20 ppm by volume or less; and
	b. Reduce Cl_2 emissions by 99 percent or greater or achieve an outlet concentration of 100 ppm by volume or less.
2. Emission stream from an HCl storage tank at an existing source	Reduce HCl emissions by 99 percent or greater or achieve an outlet concentration of 120 ppm by volume or less.
3. Emission stream from an HCl transfer operation at an existing source	Reduce HCl emissions by 99 percent or greater or achieve an outlet concentration of 120 ppm by volume or less.
4. Emission stream from leaking equipment in HCl service at existing and new sources	a. Prepare and operate at all times according to an equipment LDAR plan that describes in detail the measures that will be put in place to detect leaks and repair them in a timely fashion; and
	b. Submit the plan to the Administrator for comment only with your Notification of Compliance Status; and
	c. You may incorporate by reference in such plan existing manuals that describe the measures in place to control leaking equipment emissions required as part of other federally enforceable requirements, provided that all manuals that are incorporated by reference are submitted to the Administrator.

(T2ERE and T7IMC) **[45CSR34; 40 C.F.R. §§63.8990(a) and 63.9000(a); Table 1 to 40 C.F.R. 63, Subpart NNNNN; 45CSR13, R13-1823, 4.1.18.]**

7.1.19. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall meet all applicable general requirements of 40 C.F.R. §63.9005. **[45CSR34; 40 C.F.R. §63.9005; 45CSR13, R13-1823, 4.1.19.]**

7.1.20. **40 C.F.R. 63, Subpart FFFF.** The Fluoropolymers Business Unit has been determined to be subject to the following requirements of 40 C.F.R. 63, Subpart FFFF – "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing."

a. **General Requirements.** The permittee shall comply with all applicable general requirements specified in Table 12 to 40 C.F.R. 63, Subpart FFFF and 40 C.F.R. §§63.2450 and 63.2540. **[45CSR34; 40 C.F.R. §§63.2450 and 63.2540; Table 12 to 40 C.F.R. 63, Subpart FFFF; 45CSR13, R13-1823, 4.1.20.a]**

b. **Hydrogen Halide and Halogen HAP Emissions from Process Vents.** The permittee shall comply with each emission limit in Table 3 to 40 C.F.R. 63, Subpart FFFF and each applicable requirement specified in 40 C.F.R. §63.2465 for process vents that emit hydrogen halide and halogen HAPs.

i. **Hydrogen Halide and Halogen HAP Process Vents.** For a process with uncontrolled hydrogen halide and halogen HAP emissions from process vents ≥ 1,000 lb/yr, the permittee has chosen to reduce collective hydrogen halide and halogen HAP emissions by ≥ 99 percent by weight or to an outlet concentration ≤ 20 ppm_v by venting through one or more closed-vent systems to any combination of control devices. *(Emission Units: C2ES, T1BW, T1BX, T1XC, and T1XD; Control Devices: T7XIC and T7IMC and/or its associated Scrubber)*

[45CSR34; 40 C.F.R. §63.2465; Table 3 to 40 C.F.R. 63, Subpart FFFF; 45CSR13, R13-1823, 4.1.20.b]

c. **Equipment Leaks.** The permittee shall comply with each applicable requirement of 40 C.F.R. §63.2480 and Table 6 of 40 C.F.R. 63, Subpart FFFF, and either 40 C.F.R. 63, Subpart H, 40 C.F.R. 63, Subpart UU, or 40 C.F.R. 65, Subpart F for the applicable Fluoropolymers equipment components that are in organic HAP service. **[45CSR34; 40 C.F.R. §63.2480; Table 6 to 40 C.F.R. 63, Subpart FFFF; 45CSR13, R13-1823, 4.1.20.c]**

d. **Wastewater Streams.** The permittee shall comply with the applicable requirements of 40 C.F.R. §§63.105, 63.132 through 63.148, 63.2485, and Table 7 to 40 C.F.R. 63, Subpart FFFF for the Fluoropolymers wastewater streams. **[45CSR34; 40 C.F.R. §63.2485; Table 7 to 40 C.F.R. 63, Subpart FFFF; 45CSR13, R13-1823, 4.1.20.d]**

7.2. Monitoring Requirements

7.2.1. The permittee shall conduct visual emission monitoring during periods of commercial operation for the following emission points and equipment subject to visual emissions or opacity limits under 45CSR6 and 45CSR7. *(T7IOE, T7AKE, T7IME)*

If commercial production is nearly continuous, monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. If commercial production is intermittent, monitoring shall be conducted at least once per calendar month or a record shall be prepared to document that no commercial production was conducted in the month. These checks shall be performed during periods of normal commercial operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visible emission

evaluation per 45CSR7A (for T7IOE and T7AKE) or 40 C.F.R. 60, Appendix A, Method 9 (for T7IME) within three (3) days of the first identification of visible emissions. A 45CSR7A or 40 C.F.R. 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.

a. For source emissions from the storage silo (T7IO) through emission point (T7IOE), monitoring shall be conducted during each material unloading event.

b. The Emergency Generator (T7JJ) shall be used only for emergencies and for routine readiness checks. Regular visual emissions observations are not required.

[45CSR13, R13-1823, 4.2.1; 45CSR§30-5.1.c]

7.2.2. **CISWI 111(d)/129.** The permittee shall install, calibrate (to manufacturer's specifications), maintain, and operate devices to continuously monitor the following operating parameters for the thermal converter and associated scrubber (T7IMC):

a. **Maximum charge rate** (for continuous units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations);

b. **Minimum pressure drop across the wet scrubber** (calculated as 90 percent of the average pressure drop across the wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations);

c. **Minimum scrubber liquor flow rate** (calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations);

d. **Minimum scrubber liquor pH** (calculated as 90 percent of the average liquor pH at the inlet to the wet scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation).

The operating limits established during the most recent performance tests are specified in the following table.

Operating Parameter	Average Rate Measured During Compliance Testing	CISWI Operating Limit	Test Date Establishing Limit
Maximum charge rate	602 lb/hr	662 lb/hr	March 20-21, 2006 and May 24, 2006
Minimum pressure drop across the wet scrubber	33 in wc	29.7 in. wc	March 10, 2009
Minimum scrubber liquor flow rate	41.7 gpm	37.5 gpm	March 20-21, 2006 and May 24, 2006
Minimum scrubber liquor pH	7.18	6.46	March 10, 2009

Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance unless a different averaging period is approved by the Administrator.

[45CSR13, R13-1823, 4.2.2; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]

7.2.3. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall demonstrate compliance with the HCl and Cl_2 emission limits of 7.1.18 for T2ERE by meeting the combination of the following conditions:

a. Scrubber base temperature at or below 82 °C (process instrument measurement), AND

b. Fresh water make-up to the top section of the scrubber, measured with a flow meter (process instrument measurement) at or above 1,000 pph. Inherent in the scrubber design, 1,000 pph liquid flow is the minimum required to assure proper wetting of the packing and, therefore, proper scrubbing; OR

c. Operation of the recycle acid flow system through a restricting orifice. The restriction orifice is designed to assure that proper pump operation will provide flow well above the minimum required flow to wet the scrubber packing under all operational scenarios. Therefore, verification of proper operation of the recycle acid pump is indicated by the pump power monitor installed upon the pump. For the column to be properly operated (with the packing wetted adequately) the power monitor must read above a 1.4 amp minimum. This amp rating corresponds to the pump manufacturer's minimum recommended sustained flow rate for the pump.

(Emission Point: T2ERE; Control Device: T2ERC) **[45CSR34; 40 C.F.R. §§ 63.9000(b) and 63.9025(b); Table 2 to 40 C.F.R. 63, Subpart NNNNN; 45CSR13, R13-1823, 4.2.3; Letter from Bernard E. Turlinski, Associate Director, Office of Enforcement and Permits Review, EPA Region III, to Robert L. Ritchey, Sr. Environmental Control Consultant of DuPont Washington Works, dated April 4, 2006]**

7.2.4. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall establish the following operating limits in order to demonstrate compliance with the HCl and Cl_2 emission limits of 7.1.18 for T7IMC:

a. The minimum value as the operating limit for scrubber inlet liquid or recirculating liquid flow rate, as appropriate. The minimum values shall be based on the scrubber inlet liquid or recirculating liquid flow rate, as appropriate; and

b. The minimum and maximum values as the operating limits for scrubber effluent pH.

The operating limits shall be defined and based on the results of the most recent compliance testing which successfully demonstrates compliance with the applicable emission standards specified in 7.1.18. Subsequent testing requirements are specified in 7.3.3.

(Emission Point: T7IME; Control Device T7IMC) **[45CSR34; 40 C.F.R. §§ 63.9000(b) and 63.9020(e)(1); Table 2 to 40 C.F.R. 63, Subpart NNNNN; 45CSR13, R13-1823, 4.2.4]**

7.2.5. **40 C.F.R. 63, Subpart NNNNN.** For each operating parameter that is required to be monitored under 7.2.3 and 7.2.4, the permittee shall install, operate, and maintain each CMS according to the requirements in 40 C.F.R. §63.9025(a). **[45CSR34; 40 C.F.R. §63.9025(a); 45CSR13, R13-1823, 4.2.5]**

7.2.6. **40 C.F.R. 63, Subpart FFFF.** The permittee shall perform all required monitoring in compliance with the applicable general provisions of 40 C.F.R. 63, Subpart FFFF, per: 40 C.F.R. §§63.2450 and 63.2540; Table 12 to 40 C.F.R. 63, Subpart FFFF; and 40 C.F.R. 63, Subpart A. **[45CSR34; 40 C.F.R. §§63.2450 and 63.2540; Table 12 to 40 C.F.R. 63, Subpart FFFF; 40 C.F.R. 63, Subpart A; 45CSR13, R13-1823, 4.2.6]**

7.2.7. **40 C.F.R. 63, Subpart FFFF.** The permittee shall demonstrate compliance with the hydrogen halide and halogen HAP emission standards listed in 7.1.20.b.i for the Thermal Converter (T7IMC) and associated scrubber, by maintaining the following monitoring parameters as established in the Notification of Compliance Status (NOCS) Report dated October 6, 2008:

Thermal Converter – Scrubber (T7IMC)	Monitoring Frequency	Limit
Minimum Scrubber Effluent pH	Continuous	7.1
Minimum Scrubber Influent Liquor Flow	Continuous	40 gpm
Maximum Gas Stream Flow	Continuous	12,700 pph

(Emission Units: C2ES, T1BW, T1BX, and T1XC; Control Device: T7IMC and associated Scrubber) **[45CSR34; 40 C.F.R. §§63.988(c), 63.994(c) and 63.996; 45CSR13, R13-1823, 4.2.7]**

7.2.8. **40 C.F.R. 63, Subpart FFFF.** The permittee shall demonstrate compliance with the hydrogen halide and halogen HAP emission standards listed in 7.1.20.b.i for the South Still House Scrubber (T7XIC), by maintaining the following monitoring parameters as established in the Notification of Compliance Status (NOCS) Report dated October 6, 2008 and the supplemental alternative monitoring proposal dated March 11, 2010:

South Still House Scrubber (T7XIC)	Monitoring Frequency	Limit
Maximum Scrubber Temperature	Continuous	140 °F (60 °C)
Minimum Scrubber Liquor Circulation Rate	Continuous	200 gpm
Maximum Vent Flow Discharge Rate	Continuous	2,194 lb/hr

(Emission Unit: T1XD; Control Device: T7XIC) **[40 C.F.R. §§63.994(c), 63.996(d), and 63.999(d); Letter from David F. Altman, Sr. Environmental Control Consultant of DuPont Washington Works to John Benedict, Director of DAQ and carbon copy to Judy Katz, Director of EPA Region III, dated May 8, 2008; Design Evaluation and Petition Document for the South Stillhouse Scrubber T7XIC, dated March 11, 2010; Alternative Monitoring Approval for Water Scrubber ID (T7XIC) from John Benedict, Director of DAQ to Karl J. Boelter, Plant Manager, dated June 16, 2010; 45CSR13, R13-1823, 4.2.8]**

7.3. Testing Requirements

7.3.1. **CISWI 111(d)/129.** The permittee shall conduct an annual performance test for particulate matter, hydrogen chloride, and opacity to determine compliance with the emission limits specified in 7.1.15. The annual performance test shall be conducted using the test methods specified in 7.1.15. Subsequent annual performance tests shall be conducted within 12 months of the previous one.

The permittee may test less often for a given pollutant if there is test data for at least 3 years, and all performance tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show compliance with the emission limits specified 7.1.15. In this case, the permittee does not have to conduct a performance test for that pollutant for the next 2 years.

The permittee must conduct a performance test during the third year and no more than 36 months following the previous performance test. If the CISWI unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, the permittee may choose to conduct performance tests for these pollutants every third year, but each test must be within 36 months of the previous performance test.

If a performance test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, the permittee must conduct annual performance tests for that pollutant until all performance tests over a 3-year period show compliance.

The permittee may conduct a repeat performance test at any time to establish new values for the operating limits. The Administrator may request a repeat performance test at any time.

The permittee must repeat the performance test if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

[45CSR13, R13-1823, 4.3.1; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]

7.3.2. **CISWI 111(d)/129.** The permittee shall conduct an initial performance test, as required under 40 C.F.R. §60.8, to determine compliance with the emission limits specified in 7.1.15 and to establish operating limits using the procedure in 40 C.F.R. §60.2675 or 40 C.F.R. §60.2680. The initial performance test must be conducted using the test methods listed in 7.1.15 and the procedures in 40 C.F.R. §60.2690. **[45CSR13, R13-1823, 4.3.2; 45CSR§§18-7.3.a, 7.3.f, and 7.3.g; 40 C.F.R. §§62.12155 through 62.12157]**

7.3.3. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall conduct all subsequent applicable performance tests according to the procedures in 40 C.F.R. §63.9020 on the earlier of the title V operating permit renewal or within 5 years of issuance of the title V permit. The results of the subsequent performance tests shall be reported within 60 days after the completion of the test. This report should also verify that the operating limits for the affected source have not changed or provide documentation of revised operating limits established as specified in Table 2 to 40 C.F.R. 63, Subpart NNNNN. The reports for all subsequent performance tests should include all applicable information required in 40 C.F.R. §63.9050.

The permittee shall not be required to conduct a performance test for an emission point for which a performance test was conducted within the previous 5-year period, using the same test methods specified in 40 C.F.R. §63.9020 and for which either no deliberate process changes have been made since the test, or the owner or operator can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes. The operating limits reported under the previous performance test shall be sufficient to meet the monitoring requirements in 40 C.F.R. 63, Subpart NNNNN.

(Emission Points: T2ERE and T7IME; Control Devices: T2ERC and T7IMC) **[45CSR34, 40 C.F.R. §§63.9015 and 60.9020(d); 45CSR13, R13-1823, 4.3.3]**

7.3.4. **Opacity testing.** Any test to determine compliance with the visible emissions (opacity) limitations set forth in 7.2.1 shall be conducted by personnel appropriately trained for the task. Personnel performing the visual emissions observation shall be trained and familiar with the limitations and restrictions associated with 40 CFR 60 Appendix A – Method 22. Any person performing an opacity observation for compliance assessment in the event of visible emission must be a certified visible emission observer in accordance with 45CSR7A – "Compliance Test Procedures for 45CSR7 – *To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations."* Nothing in this section, however, shall preclude any permittee or the Secretary from using opacity data from a properly installed, calibrated, maintained and operated continuous opacity monitor as evidence to demonstrate compliance or a violation of visible emission requirements. If continuous opacity monitoring data results are submitted when determining compliance with visible emission limitations for a period of time during which 45CSR7A or Method 22 data indicates noncompliance, the 45CSR7A or Method 22 data shall be used to determine compliance with the visible emission limitations. **[45CSR13, R13-1823, 4.3.5.]**

7.4. Recordkeeping Requirements

7.4.1. For the purpose of determining compliance with the process emission limits set forth in 7.1.1 and 7.1.2, and the operating limitations set forth in 7.1.5, 7.1.6, and 7.1.7, the permittee shall maintain records equivalent to the example monthly record keeping form supplied as Attachment A of Appendix D, and the emission reports equivalent to the monthly and annual reports supplied as Attachments D and E of Appendix D. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-1823, 4.4.4.]**

7.4.2. For the purpose of determining compliance with the maintenance emission limits set forth in 7.1.4, the permittee shall maintain records equivalent to the example monthly record keeping form supplied as Attachment B of Appendix D, and the emission reports equivalent to the monthly and annual reports supplied as Attachments D and E of Appendix D. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-1823, 4.4.5.]

7.4.3. For the purpose of determining compliance with the control device parameter monitoring specified in 7.1.5, 7.2.2, 7.2.3, 7.2.4, 7.2.7, and 7.2.8, the permittee shall maintain records equivalent to the example monthly record keeping form supplied as Attachment C of Appendix D. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-1823, 4.4.6.]

7.4.4. Notwithstanding the requirements in Section 3.4.6. of this permit, malfunctions (defined as monitoring parameters outside acceptable values defined in 7.1.5, 7.2.2, 7.2.3, 7.2.4, 7.2.7, and 7.2.8) of the North Tank Farm Scrubber (T2ERC), the Thermal Converter (T7IMC), the Neutralization System Scrubber (T7JDC), and/or the South Stillhouse Scrubber (T7XIC) for periods exceeding (30) minutes in duration shall be documented in writing as appendices to the record keeping form supplied as Attachment C of Appendix D. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request. At a minimum, the following information shall be documented for each malfunction:

a. The equipment involved and associated cause of the malfunction.
b. Steps taken to correct the malfunction.
c. Steps taken to minimize emissions during the malfunction.
d. The duration of the malfunction.
e. The estimated increase in emissions during the malfunction.
f. Any changes or modification to equipment or procedures that would help prevent future recurrence of the malfunction.

In the event a MACT standard requiring a Startup, Shutdown, and Malfunction (SSM) Plan should be found applicable to this permitted process in the future, then that SSM Plan would supercede the provisions of Specific Requirement 7.4.4 above. Until that time, or until notice from the permittee in writing to the Director of plans to adopt an SSM Plan, the provisions of Specific Requirement 7.4.4 will remain applicable.

[45CSR13, R13-1823, 4.4.7.]

7.4.5. The permittee shall maintain records of all occurrences of objectionable odors from any of the incinerators. In addition to the date and time of the occurrence, the record shall also include the suspected cause and any actions taken. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-1823, 4.4.8]**

7.4.6. In addition to the monthly records of the quantity of fuel consumed in Furnace T1CD (required to be maintained in Attachment A of Appendix D), the permittee shall also maintain the date and time of startup and shutdown. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his/her duly authorized representative upon request. **[45CSR§2-8.3.c and 45CSR§2A-7.1.a.1; 45CSR13, R13-1823, 4.4.9]**

7.4.7. Records of the visible emission observations required by 7.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and if necessary, all corrective actions taken. The permittee shall maintain these records according to the conditions specified in 40 CFR 63.10(b)(1). Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request. If these records are considered to contain business confidential information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 - "Confidential Information." **[45CSR13, R13-1823, 4.4.10]**

7.4.8. **CISWI 111(d)/129.** The permittee shall maintain the following records for a period of at least 5 years:

a. Calendar date of each record.

b. Records of the data described in 7.4.8.b.i through 7.4.8.b.iv:

i. The CISWI unit charge dates, times, weights, and hourly charge rates.

ii. Liquor flow rate to the wet scrubber inlet every 15 minutes of operation.

iii. Pressure drop across the wet scrubber system every 15 minutes of operation.

iv. Liquor pH as introduced to the wet scrubber every 15 minutes of operation.

c. Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

d. Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

e. Identification of calendar dates and times for which data show a deviation from the operating limits in 7.2.2 with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

f. The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or establish operating limits, as applicable. Retain a copy of the complete test report including calculations.

g. Records showing the names of CISWI unit operators who have completed review of the information in 40 C.F.R. §60.2660(a) as required by §60.2660(b), including the date of the initial review and all subsequent annual reviews.

h. Records showing the names of the CISWI operators who have completed the operating training requirements under 40 C.F.R. §63.2635, met the criteria for qualification under §60.2645, and maintained or renewed their qualification under §60.2650 or §60.2655. Records must include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

i. For each qualified operator, the phone and/or pager number at which they can be reached during operating hours.

j. Records of calibration of any monitoring devices as required under 7.2.2.

k. Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

l. The information listed in 40 C.F.R. §60.2660(a).

m. On a daily basis, keep a log of the quantity of waste burned and the types of waste burned (always required).

All records must be available onsite in either paper copy or computer-readable format that can be printed upon request. **[45CSR13, R13-1823, 4.4.11; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]**

7.4.9. **40 C.F.R. 63, Subpart EEEE.** For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation

that verifies that each storage tank and transfer rack is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in 7.4.9 on a plant site plan or process and instrumentation diagram (P&ID). **[45CSR34; 40 C.F.R. §63.2343(a); 45CSR13, R13-1823, 4.4.12]**

7.4.10. **40 C.F.R. 63, Subpart EEEE.** For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 1 through 6, you must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. *(T7AA)* **[45CSR34; 40 C.F.R. §§63.2343(b) and (b)(3); 45CSR13, R13-1823, 4.4.13]**

7.4.11. **40 C.F.R. 63, Subpart EEEE.** For each transfer rack subject to 40 C.F.R. 63, Subpart EEEE that loads organic liquids but is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 7 through 10, you must keep documentation, including the records specified in 40 C.F.R. §63.2390(d), that verifies the transfer rack is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. **[45CSR34; 40 C.F.R. §§63.2343(c) and (c)(3); 45CSR13, R13-1823, 4.4.14]**

7.4.12. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall maintain records in accordance with 40 C.F.R. §§63.9005, 63.9055, 63.9060, 63.9065; Table 7 to 40 C.F.R. 63, Subpart NNNNN; and 40 C.F.R. 63, Subpart A. **[45CSR34, 40 C.F.R. §§63.9005, 63.9055, 63.9060, 63.9065; Table 7 to 40 C.F.R. 63, Subpart NNNNN; 40 C.F.R. 63, Subpart A; 45CSR13, R13-1823, 4.1.15]**

7.4.13. **40 C.F.R. 63, Subpart FFFF.** The permittee shall maintain records in accordance with 40 C.F.R. §§63.2450, 63.2525, and 63.2540; Table 12 to 40 C.F.R. 63, Subpart FFFF; any records required by 40 C.F.R. 63, Subpart A, and as applicable in referenced 40 C.F.R. 63, Subparts F, G, H, SS, UU, WW, and GGG, and 40 C.F.R. 65, Subpart F. **[45CSR34; 40 C.F.R. §§63.2450, 63.2525, 63.2540; Table 12 to 40 C.F.R. 63, Subpart FFFF; 40 C.F.R. 63, Subparts A, F, G, H, SS, UU, WW, and GGG; 40 C.F.R. 65, Subpart F; 45CSR13, R13-1823, 4.4.16]**

7.5. Reporting Requirements

7.5.1. **CISWI 111(d)/129.** The permittee shall submit an annual report no more than 12 months following the previous report. The annual report must include the following items:

a. Company name and address.

b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

c. Date of report and beginning and ending dates of the reporting period.

d. The values for the operating limits established in 7.2.2.

e. If no deviation from any emission limitation or operating limit that applies has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the operating limits was inoperative, inactive, malfunctioning or out of control.

f. The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

g. Information recorded under 7.4.8.c through 7.4.8.e for the calendar year being reported.

h. If a performance test was conducted during the reporting period, the results of that test.

i. If you met the requirements of 40 C.F.R. §60.2720(a) or (b) as specified under 7.3.1, and did not conduct a performance test during the reporting period, you must state that you met the requirements of 40 C.F.R. §60.2720(a) or (b), and therefore, you were not required to conduct a performance test during the reporting period.

j. Documentation of all periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

[45CSR13, R13-1823, 4.5.1; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]

7.5.2. **CISWI 111(d)/129.** The permittee shall submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under 7.2.2 or if a performance test was conducted that deviated from any emission limitation. The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31).

In each report, for any pollutant or parameter that deviated from the emission limitations or operating limits specified in 7.1.15 or 7.2.2, the permittee shall include the following:

a. The calendar dates and times the unit deviated from the emission limitations or operating limit requirements.

b. The averaged and recorded data for those dates.

c. Duration and causes of each deviation from the emission limitations or operating limits and the corrective actions.

d. A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels.

e. The dates, times, number, duration, and causes for monitoring downtime incidents (other than downtime associated with zero, span, and other routine calibration checks).

f. Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

[45CSR13, R13-1823, 4.5.2; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]

7.5.3. **CISWI 111(d)/129.** If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in 7.5.3.a and 7.5.3.b.

a. Submit a notification of the deviation within 10 days that includes the three items in 7.5.3.a.i through 7.5.3.a.iii.

i. A statement of what caused the deviation.

ii. A description of what you are doing to ensure that a qualified operator is accessible.

iii. The date when you anticipate that a qualified operator will be available.

b. Submit a status report to the Administrator every 4 weeks that includes 7.5.3.b.i through 7.5.3.b.iii.

i. A description of what you are doing to ensure that a qualified operator is accessible.

ii. The date when you anticipate that a qualified operator will be accessible.

iii. Request approval from the Administrator to continue operation of the CISWI unit.

If the unit was shut down by the Administrator under the provision of 40 C.F.R. §60.2665(b)(2), due to a failure to provide an accessible qualified operator, you must notify the Administrator that you are resuming operation once a qualified operator is accessible.

[45CSR13, R13-1823, 4.5.3; 45CSR§18-7.3; 40 C.F.R. §§62.12155 through 62.12157]

7.5.4. **40 C.F.R. 63, Subpart EEEE.** If one or more of the events identified in paragraphs 7.5.4.a through 7.5.4.d occur since the filing of the Notification of Compliance Status or the last Compliance report, you must submit a subsequent Compliance report as specified in 7.4.10 and 7.4.11. The subsequent Compliance report shall be submitted according to the schedule in 40 C.F.R. §63.2386(b).

a. Any storage tank or transfer rack became subject to control under 40 C.F.R. 63, Subpart EEEE; or

b. Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of 40 C.F.R. 63, Subpart EEEE.

c. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or

d. Any of the information required in 40 C.F.R. §§63.2386(c)(1), (c)(2), or (c)(3) has changed.

[45CSR13, R13-1823, 4.5.4; 45CSR34; 40 C.F.R. §§63.2343(b)(2)(i), (c)(2)(i), and (d)]

7.5.5. **40 C.F.R. 63, Subpart NNNNN.** The permittee shall submit all required applicable reports and notifications per the requirements of 40 C.F.R. §§63.9005, 63.9050, and 63.9065 ; Tables 6 and 7 to 40 C.F.R. 63, Subpart NNNNN; and 40 C.F.R. 63, Subpart A. **[45CSR13, R13-1823, 4.5.5; 45CSR34; 40 C.F.R. §§63.9005, 63.9050, 63.9065; Tables 6 and 7 to 40 C.F.R. 63, Subpart NNNNN; 40 C.F.R. 63, Subpart A]**

7.5.6. **40 C.F.R. 63, Subpart FFFF.** The permittee shall submit all required applicable reports and notifications per the requirements of 40 C.F.R. §§63.2450, 63.2515, 63.2520, 63.2540; Tables 11 and 12 to 40 C.F.R. 63, Subpart FFFF; and 40 C.F.R. 63, Subpart A, and as applicable in referenced 40 C.F.R. 63, Subparts F, G, H, SS, UU, WW, and GGG, and 40 C.F.R. 65, Subpart F. **[45CSR13, R13-1823, 4.5.6; 45CSR34; 40 C.F.R. §§63.2450, 63.2515, 63.2520, 63.2540; Tables 11 and 12 to 40 C.F.R. 63, Subpart FFFF; 40 C.F.R. 63, Subparts A, F, G, H, SS, UU, WW, and GGG; 40 C.F.R. 65, Subpart F]**

7.6. Compliance Plan

7.6.1. None.

8.0 Source-Specific Requirements [T5 Area]

8.1. Limitations and Standards

8.1.1. Emissions released to the atmosphere shall be limited to the pollutants and associated maximum emission rates set forth in the following Table 8.1.1:

Table 8.1.1.

Emission Point ID	Source ID (Description)	Control Device	Pollutant	Emission Limit	
				pph	tpy
T5HTE	T5HT (#1 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HUE	T5HU (#2 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HVE	T5HV (#3 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HWE	T5HW (#4 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HXE	T5HX (#5 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HN (Area Emissions)	T5HN (Raw Material System)	None	VOC	2.2	0.01
T5HC & T5HD (Area Emissions)	T5HC (#4 Polykettle) T5HD (#5 Polykettle)	None	ODC VOC	0.1 1.7	0.02 7.14
T5HCE	T5HC (#4 Polykettle) T5HN (Raw Material System) T5HW (#4 Tank)	None	ODC VOC	0.1~~8~~ 10.4	~~0.01~~0.15 ~~0.23~~3.1
T5HCE2	T5HC (#4 Polykettle)	None	ODC VOC	0.7 ~~173.5~~ 152.0	0.01 ~~0.60~~ 1.33
T5HDE	T5HD (#5 Polykettle) T5HX (#5 Tank)	None	ODC VOC	0.1~~8~~ 10.4	~~0.01~~0.15 ~~0.23~~3.10
T5HDE2	T5HD (#5 Polykettle)	None	ODC VOC	0.7 ~~173.5~~ 152.0	0.01 ~~0.60~~ 1.33
T5HAE	T5HA (#1 Heater)	None	NOx CO PM (Total, 2.5, 10) SO_2 VOC	0.5 0.4 0.1 0.1 0.1	1.90 1.60 0.15 0.02 0.11
T5HBE	T5HB (#2 Heater)	None	NOx CO PM (Total, 2.5, 10) SO_2 VOC	0.5 0.4 0.1 0.1 0.1	1.80 1.51 0.14 0.02 0.10

Emission Point ID	Source ID (Description)	Control Device	Pollutant	Emission Limit	
				pph	tpy
T5HGE	T5HG (#1 Dryer)	T5HGC (Cyclone)	PM PM_{10} APFO[1]	0.5 0.1 0.022	1.22 0.22 0.04
T5HIE	T5HI (#2 Dryer)	T5HIC (Cyclone)	PM PM_{10} ODC APFO[1] VOC	0.7 0.2 0.2 0.028 0.1	0.92 0.17 0.30 0.03 0.11
T5HKE	T5HK (Process Tank) T5HL (Process Tank)	T5HKC (Condenser)	ODC	0.5	1.97
~~T5HQE~~	~~T5HQ (Oven)~~	~~None~~	~~HF (7664-39-3)~~	~~0.01~~	~~0.022~~
~~T5HRE~~	~~T5HR (Oven)~~	~~None~~	~~HF (7664-39-3)~~	~~0.01~~	~~0.022~~
T5HYE	T5HY (Chiller)	None	Methanol (67-56-1)	0.11	0.780
T7XIE[2]	T5HC (#4 Polykettle)	None	VOC ODC	95.55 0.36	0.34 0.01
	T5HD (#5 Polykettle)				
	T5HM (Monomer System)				
	T5HN (Raw Material System)				
	T5HP (Raw Material Tank)				
	T5HW (#4 Tank)				
	T5HX (#5 Tank)				

[1] Ammonium perfluorooctanoate (CAS 3825-26-1)

[2] Emission Point T7XIE is the stack from the South Stillhouse Scrubber (T7XIC) in the Monomer Area of Fluoroproducts. T7XIC and the associated emissions are described in the latest version of Permit R13-1823.

Note: The hourly emission rate is the largest of the sources feeding the stack, not the sum of the sources feeding the stack. The annual limit reflects the total of all sources. Also, aborted batches from T5HC and T5HD vent to T5HCE and T5HCE2, and T5HDE and T5HDE2, resulting in a higher potential emission rate.

Compliance with the above hourly particulate matter emission limits for T5HGE and T5HIE shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limit. **[45CSR13, R13-1353, A.1 and B.2, 45CSR§7-4.1]**

8.1.2. Heater #1 [T5HA] is a natural gas-fired heater limited to a maximum heat output of 4,300,000 BTU per hour and a maximum fuel consumption rate of 4,300 standard cubic feet of natural gas per hour. **[45CSR13, R13-1353, A.2]**

8.1.3. Heater #2 [T5HB] is a natural gas-fired heater limited to a maximum heat output of 4,100,000 BTU per hour and a maximum fuel consumption rate of 4,100 standard cubic feet of natural gas per hour. **[45CSR13, R13-1353, A.3]**

8.1.4. Emissions from the Line #1 Dryer T5HG, shall be vented to the mechanical collector, T5HGC, and then to the atmosphere through emission point T5HGE. **[45CSR13, R13-1353, A.4]**

8.1.5. Emissions from the Line #2 Dryer, T5HI, shall be vented to the mechanical collector, T5HIC, and then to the atmosphere through emission point T5HIE. **[45CSR13, R13-1353, A.5]**

8.1.6. Acetonitrile (CAS 107-13-1) shall be emitted from Source T5HN through Emission Points T5HCE, T5HDE, and T5HDE2 at a total maximum hourly rate of 0.01 pounds per hour and a total maximum annual rate of 15 pounds per year. **[45CSR13, R13-1353, A.6]**

8.1.7. The vent condenser, T5HKC, shall function under routine process conditions with an exit brine temperature not to exceed 32 degrees Fahrenheit under normal venting conditions. **[45CSR13, R13-1353, A.9]**

8.1.8. Emissions associated with tanks T5HK and T5HL shall be limited to ozone depleting compounds (ODC) at the maximum associated emission rates as shown in the following Table 8.1.8:

Table 8.1.8

Emission Point ID	Source	Potential ODC Emissions		Pollution Control		Controlled ODC Emissions	
		Hourly (lb/hr)	Annual (TPY)	Control Device ID	Description	Hourly (lb/hr)	Annual (TPY)
T5HKE[1]	T5HK T5HL	8.93	39.31	T5HKC	Condenser	0.5	1.97

[1]T5HL emits through T5HKE, but never at the same time, so hourly rates are not additive.

[45CSR13, R13-1353, A.10]

8.1.9. Emissions from the Methanol Brine System, T5HY, are emitted through emission point T5HYE. Methanol emissions from T5HYE and equipment leaks shall be limited to 0.78 tons of methanol per year. **[45CSR13, R13-1353, A.11]**

8.1.10. Compliance with all annual emission and/or operating limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean a sum at any given time during the previous twelve (12) consecutive calendar months. **[45CSR13, R13-1353, A.12]**

8.1.11. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. *(T5HAE and T5HBE)* **[45CSR§2-3.1]**

8.1.12. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. *(T5HGE, T5HIE, T5HFE, and T5HZE)* **[45CSR13, R13-1353, B.2; 45CSR§7-3.1.]**

8.1.13. The provisions of 8.1.12. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(T5HGE, T5HIE, T5HFE, and T5HZE)* **[45CSR13, R13-1353, B.2; 45CSR§7-3.2.]**

8.1.14. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A of 45CSR7.

Emission Unit	Emission Point	45CSR7 Hourly Particulate Emission Limit pph
T5HF	T5HFE	0.002
T5HZ	T5HZE	14

[45CSR13, R13-1353, B.2; 45CSR§7-4.1.]

8.2. Monitoring Requirements

8.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (8.1.12 and 8.1.13. of this permit), the permittee shall conduct opacity monitoring and record keeping for emission points T5HGE and T5HIE. Monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within three (3) days of the first signs of visible emissions. A 45CSR7A evaluation will not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. *(T5HGE, T5HIE)* **[45CSR13, R13-1353, B.3]**

8.2.2. To ensure compliance with the hourly and annual emission rates of particulate matter and APFO as set forth in 8.1.1, process control interlocks shall be utilized that shuts down the operation of the dryers T5HG and T5HI, in the event the process conditions exceed the alarm levels preset and continuously monitored within the cyclones T5HGC and T5HIC for more than 10 seconds. A documented log shall be maintained when these interlocks are tripped and the operation continues for up to or greater than thirty (30) minutes in duration. At a minimum, the following information must be documented for each logged malfunction:

a. The equipment involved and associated cause of the malfunction
b. Steps taken to correct the malfunction
c. Steps taken to minimize emissions during the malfunction
d. The duration of the malfunction
e. The estimated increase in emissions during the malfunction

f. Any changes or modifications to equipment or procedures that would help prevent future recurrence of the malfunction

These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" (as defined by 45CSR13), and made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-1353, B.6]**

8.2.3. To ensure compliance with the emissions associated with the process tank, T5HK, the exit brine temperature of the condenser, T5HKC, shall be equipped with a continuous monitoring system. A record will be generated for any period of time when the exit brine temperature exceeds 32 °F under normal venting conditions. The record will include the date, time, and duration of the period, and an estimate of the quantity of excess pollutants emitted. **[45CSR13, R13-1353, B.8]**

8.3. Testing Requirements

8.3.1. None.

8.4. Recordkeeping Requirements

8.4.1. For the purpose of determining compliance with the permit limits based on the maximum annual operating parameters of the natural gas-fired heaters set forth in 8.1.2 and 8.1.3, and the associated emission limits through Emission Points T5HAE and T5HBE established in Requirement 8.1.1, the permittee shall maintain monthly records of the heaters' operating schedules and associated natural gas consumption rates. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-1353, B.4]

8.4.2. For the purpose of determining compliance with the permit limits based on the maximum permitted emission rates as described in 8.1.1, the permittee shall maintain monthly calculations of the average hourly and total annual emissions associated with the operation of all affected sources. In addition, the permittee shall record and document all operating parameters and production records used to calculate the monthly emissions estimates. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-1353, B.5]**

8.4.3. Records of the visible emission observations required by 8.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request. *(T5HGE, T5HIE)* **[45CSR13, R13-1353, B.3]**

8.4.4. Additional record keeping requirements are provided in 8.2.2 and 8.2.3.

8.4.5. For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack is not required to be controlled. The documentation must be kept up-to-date (i.e.,

all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in 5.4.24 on a plant site plan or process and instrumentation diagram (P&ID). *(T5HY)* **[45CSR34; 40 C.F.R. §63.2343(a)]**

8.4.6. For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 1 through 6, you must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. **[45CSR34; 40 C.F.R. §§63.2343(b) and (b)(3)]**

8.4.7. For each transfer rack subject to 40 C.F.R. 63, Subpart EEEE that loads organic liquids but is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 7 through 10, you must keep documentation, including the records specified in 40 C.F.R. §63.2390(d), that verifies the transfer rack is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. **[45CSR34; 40 C.F.R. §§63.2343(c) and (c)(3)]**

8.5. Reporting Requirements

8.5.1. If one or more of the events identified in paragraphs 8.5.1.1 through 8.5.1.4 occur since the filing of the Notification of Compliance Status or the last Compliance report, you must submit a subsequent Compliance report as specified in 8.4.6 and 8.4.7. The subsequent Compliance report shall be submitted according to the schedule in 40 C.F.R. §63.2386(b).

8.5.1.1. Any storage tank or transfer rack became subject to control under 40 C.F.R. 63, Subpart EEEE; or

8.5.1.2. Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of 40 C.F.R. 63, Subpart EEEE.

8.5.1.3. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or

8.5.1.4. Any of the information required in 40 C.F.R. §§63.2386(c)(1), (c)(2), or (c)(3) has changed.

[45CSR34; 40 C.F.R. §§63.2343(b)(2)(i), (c)(2)(i), and (d)]

8.6. Compliance Plan

8.6.1. None.

9.0 Source-Specific Requirements [T6 Area]

9.1. Limitations and Standards

9.1.1. Maximum daily production shall not exceed 12 batches per day on reactor #6 (T6IB) and #7 (T6IC) or 15 batches per day on reactor #8 (T6ID) and #9 (T6IU). The maximum annual production rates shall not exceed 2920 batches per year on reactors #6 (T6IB) and #7 (T6IC) or 3650 batches per year on reactors #8 (T6ID) and #9 (T6IU). **[45CSR13, R13-0815, A.1]**

9.1.2. During homopolymer production, emissions generated from reactors #6 (T6IB), #7 (T6IC), #8 (T6ID), and #9 (T6IU) shall be routed to recovery equipment in the monomer area until the reactor pressure drops to 2 psig (max. 2.5 psig, average 2 psig). During copolymer production, reactors #8 (T6ID) and #9 (T6IU) shall be vented to monomer area control equipment, emission point T7IME, until the reactor pressure drops to 5 psig (max. 5.5 psig, average 5 psig) or to the monomer's area recovery equipment until the reactor pressure drops to 2 psig (max. 2.5 psig, average 2 psig). Recovery and control equipment in the monomer area are permitted by R13-1823D, and/or any Amendments thereto. **[45CSR13, R13-0815, A.2]**

9.1.3. Both scrubbers having air pollution control devices, ID No. T6IFC and T6IZC, shall be operated at all times emissions are generated from the No. 1, 2, or 3 dryers designated as ID No. T6IV, T6IE, and T6IF respectively. **[45CSR13, R13-0815, A.3]**

9.1.4. The packed bed scrubber, ID No. T6IFC, as well as the deep bed scrubber, ID No. T6IZC shall be maintained and operated according to manufacturers' specifications, standard facility maintenance procedures and schedules as well as maintained and operated in accordance with the information submitted in Permit Application R13-0815. Compliance with this requirement shall be demonstrated by monitoring and recording the following hourly average operating parameters:

Table 9.1.4

Control Device	Inlet Gas Flow SCFM	Type of Liquor	Liq. Flow Rate gpm	Press. Drop inch W.C.
Packed Bed Scrubber T6IFC	24,000 (max)	Buffered water and APFO	50 (minimum)	10 (max)
Deep Bed Scrubber T6IZC	24,000 (max)	Buffered water	3 (minimum)	20 (max)

[45CSR13, R13-0815, A.4]

9.1.5. The permittee shall not exceed the following maximum hourly and annual emission limits:

Table 9.1.5

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				Hourly (pph)[1]	Annual (tpy)
T6IIE	T6II (#1 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.13
T6IJE	T6IJ (#2 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.13

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				Hourly (pph)[1]	Annual (tpy)
T6IKE	T6IK (#3 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.13
T6ILE	T6IL (#4 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.13
Area	T6PI (Feed System)	None	Acetonitrile (107-13-1) VOC	0.01 17.8	0.001 0.42
Area	T6PJ (Raw Material System)	None	VOC	7.5	0.04
T6IBE	T6II (#1 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6IB (Reactor #6) T6QJ (#6 Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	43.9 0.2~~3~~0 0.01 0.01	10.3~~1~~0 0.0~~3~~342 0.0~~04~~001 0.001
~~T6IBE2~~	~~T6IB (Reactor #6)~~	~~None~~	~~VOC~~ ~~ODC~~ ~~Acetonitrile (107-13-1)~~ ~~Toluene (108-88-3)~~	~~406.6~~ ~~1.5~~ ~~0.01~~ ~~0.01~~	~~0.21~~ ~~0.01~~ ~~0.001~~ ~~0.001~~
T6ICE	T6IJ (#2 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6IC (Reactor #7) T6QK (#7 Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	43.9 0.2~~3~~0 0.01 0.01	10.3~~2~~0 0.0~~3~~342 0.0~~04~~001 0.001
~~T6ICE2~~	~~T6IC (Reactor #7)~~	~~None~~	~~VOC~~ ~~ODC~~ ~~Acetonitrile (107-13-1)~~ ~~Toluene (108-88-3)~~	~~406.6~~ ~~1.5~~ ~~0.01~~ ~~0.01~~	~~0.21~~ ~~0.01~~ ~~0.001~~ ~~0.001~~
T6IDE	T6IK (#3 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6ID (Reactor #8) T6QL (#8 Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	43.9 0.2~~3~~0 0.01 0.01	14.~~67~~38 0.0~~5~~58 0.00~~8~~1 0.001
~~T6IDE2~~	~~T6ID (Reactor #8)~~	~~None~~	~~VOC~~ ~~ODC~~ ~~Acetonitrile (107-13-1)~~ ~~Toluene (108-88-3)~~	~~406.6~~ ~~1.5~~ ~~0.01~~ ~~0.01~~	~~0.21~~ ~~0.01~~ ~~0.001~~ ~~0.001~~
T6IUE	T6IL (#4 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6IU (Reactor #9) T6QM (#9 Zinc Chloride Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	~~56.1~~ 43.90 0.3 0.01 0.01	~~14.55~~ 12.06 0.0~~5~~49 0.00~~8~~1 0.001
~~T6IUE2~~	~~T6IU (Reactor #9)~~	~~None~~	~~VOC~~ ~~ODC~~ ~~Acetonitrile (107-13-1)~~ ~~Toluene (108-88-3)~~	~~406.6~~ ~~1.5~~ ~~0.01~~ ~~0.01~~	~~0.21~~ ~~0.01~~ ~~0.001~~ ~~0.001~~

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				Hourly (pph)[1]	Annual (tpy)
Area	T6QI (Knockout Pot)	None	VOC ODC	0.1 0.1	0.01 0.01
T6PCE	T6PC (#6 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.1~~2~~0 0.01 0.01 0.1	2.~~19~~30 0.001 0.001 0.~~01~~10
T6PDE	T6PD (#7 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.1~~2~~0 0.01 0.01 0.1	2.~~19~~30 0.001 0.001 0.~~01~~10
T6PEE	T6PE (#8 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.1~~2~~0 0.01 0.01 0.1	2.~~74~~59 0.001 0.001 0.~~01~~11
T6PFE	T6PF (#9 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.1~~2~~0 0.01 0.01 0.1	2.~~74~~59 0.001 0.001 0.~~01~~11
Area	T6PT (Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	~~8.1~~ 6.30 0.01 0.01 0.1	0.7~~1~~0 0.001 0.001 0.01
T6PGE	T6PG (#3 Stab Tank) T6PH (#4 Stab Tank)	None	~~VOC~~ ~~Acetonitrile (107-13-1)~~ ~~ODC~~ PM_{10}	~~8.1~~ ~~0.01~~ ~~0.1~~ 0.10	~~0.46~~ ~~0.001~~ ~~0.01~~ 0.02
T6PME	T6IW (#1 Float Tank)	None	PM_{10} $APFO^2$	0.1 0.00003	0.01 0.0001
T6IGE	T6IG (#2 Float Tank) T6IH (#3 Float Tank)	None	PM_{10} $APFO^2$	0.1 0.0001	0.01 0.0003
T6IZCE	T6IV (#1 Dryer) T6IE (#2 Dryer) T6IF (#3 Dryer)	Wet Collector Wet Collector Wet Collector	VOC PM_{10} $APFO^2$	0.50 0.3 0.248	2.23 0.33 0.325
T6IVE	T6IV (#1 Dryer)	None	VOC PM_{10} $APFO^2$	1.10 0.5 0.414	0.03 0.01 0.004
T6IEE	T6IE (#2 Dryer)	None	VOC PM_{10} $APFO^2$	1.10 0.5 0.414	0.03 0.01 0.004
T6IFE	T6IF (#3 Dryer)	None	VOC PM_{10} $APFO^2$	1.10 0.5 0.414	0.03 0.01 0.004
T6IXE	T6IX (#1 Chiller Cooler Vent)	None	PM_{10} $APFO^2$	0.1 $1x10^{-7}$	0.01~~44~~ $4x10^{-7}$
T6IYE	T6IY (#3 Chiller Cooler Vent) T6IY (#3 Chiller Cooler Vent)	None None	PM_{10} $APFO^2$	0.1 $1x10^{-7}$	0.01~~44~~ $4x10^{-7}$

[1] The hourly rate is the largest of the sources feeding the stack. This rate does not represent the sum of emissions. The annual rate reflects the total of all sources venting through the emission point.

[2]APFO - Ammonium Perfluorooctanoate

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points T6PME, T6IGE, T6IZCE, T6IVE, T6IEE, T6IFE, T6IXE, ~~and~~ T6IYE, and T6PGE.

[45CSR13, R13-0815, A.5 and B.1; 45CSR§7-4.1.]

9.1.6. Compliance with all annual emission and/or operating limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean a sum at any given time during the previous twelve (12) consecutive calendar months. **[45CSR13, R13-0815, A.8]**

9.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. *(T6PME, T6IGE, T6IZCE, T6IVE, T6IEE, T6IFE, T6IXE, T6IYE, T6PKE, T6PME, T6PNE, T6POE, T6PPE, T6PRE, T6PSE, T6PXE, T6PZE, T6SBE, ~~and~~ T6SEE, and T6PGE)* **[45CSR13, R13-0815, B.1; 45CSR§7-3.1.]**

9.1.8. The provisions of 9.1.7. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(T6PME, T6IGE, T6IZCE, T6IVE, T6IEE, T6IFE, T6IXE, T6IYE, T6PKE, T6PME, T6PNE, T6POE, T6PPE, T6PRE, T6PSE, T6PXE, T6PZE, T6SBE, ~~and~~ T6SEE, and T6PGE)* **[45CSR13, R13-0815, B.1; 45CSR§7-3.2.]**

9.1.9. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A of 45CSR7.

Emission Unit	Emission Point	45CSR7 Hourly Particulate Emission Limit pph
T6PK	T6PKE	1.6
T6PN	T6PNE	1.6
T6PO	T6POE	1.6
T6PP	T6PPE	1.6
T6PR	T6PRE	13.0
T6PS	T6PSE	13.0
T6PX	T6PXE	4.0
T6PZ	T6PZE	14.8
T6SB	T6SBE	8.8
T6SE	T6SEE	14.8

[45CSR13, R13-0815, B.1; 45CSR§7-4.1.]

9.2. Monitoring Requirements

9.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (9.1.7 and 9.1.8 of this permit), the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within twenty-four (24) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within twenty-four (24) hours after the visible emission and the sources are operating at normal conditions. **[45CSR§30-5.1.c.]**

9.3. Testing Requirements

9.3.1. For the purpose of determining compliance with the emission limits of the dryer units T6IE, T6IF, and T6IV in Specific Requirements 9.1.5, the permittee shall conduct a compliance test of the permitted facility within ninety (90) days of the date the 60-minute average production rate exceeds 120% of the rate demonstrated during the most recent test, conducted on August 13 and August 15, 2004.

A test protocol shall be submitted to DAQ for approval within thirty (30) days of the test date. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times at which the tests will be conducted. The results of emission testing shall be submitted to the DAQ within sixty (60) days of the actual test date.

[45CSR13, R13-0815, B.7]

9.4. Recordkeeping Requirements

9.4.1. For the purpose of determining compliance with the permit limits as described in 9.1.1, 9.1.2, 9.1.3, 9.1.4, and 9.1.5, the permittee shall maintain monthly calculations of the average hourly and total annual emissions associated with the operation of all affected sources. In addition, the permittee shall record and document all operating parameters and production records used to calculate or verify the monthly emission estimates. This information shall be maintained for at least five (5) years following the date of each record, report, occurrence, measurement, maintenance, or corrective action. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche. At a time prior to being submitted to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the Certification of Data Accuracy statement. **[45CSR13, R13-0815, B.4]**

9.4.2. Malfunctions of the scrubber (T6IFC) or deep bed scrubber (T6IZC) must be documented in writing for periods exceeding thirty (30) minutes in duration and records maintained at the facility for a period of five (5) years. At a minimum, the following information must be documented for each malfunction:

a. The equipment involved and associated cause of the malfunction

b. Steps taken to correct the malfunction

c. Steps taken to minimize emissions during the malfunction

d. The duration of the malfunction

e. The estimated increase in emissions during the malfunction

f. Any changes or modifications to equipment or procedures that would help prevent future recurrence of the malfunction

[45CSR13, R13-0815, B.6]

9.4.3. Records of the visible emission observations required by 9.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. **[45CSR§30-5.1.c.]**

9.5. Reporting Requirements

9.5.1. None.

9.6. Compliance Plan

9.6.1. None.

10.0 Source-Specific Requirements [Mineral Spirits Parts Cleaners (C1LD, T1JG)]

10.1. Limitations and Standards

10.1.1. The owner or operator of a cold cleaning facility shall:

a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.

b. Store waste solvent in covered containers.

c. Close the cover whenever parts are not being handled in the cleaner.

d. Drain the cleaned parts until dripping ceases.

e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge (psig).

f. Degrease only materials that are neither porous nor absorbent.

[45CSR§§21-30.3.a.4, 30.3.a.5, 30.3.a.6, 30.3.a.7, 30.3.a.8, 30.3.a.9]

10.2. Monitoring Requirements

10.2.1. None.

10.3. Testing Requirements

10.3.1. Test Method ASTM D323-72 shall be used for measuring the solvent true vapor pressure. **[45CSR§21-30.4.e.]**

10.4. Recordkeeping Requirements

10.4.1. Each owner or operator of a solvent metal cleaning source subject to this 45CSR§21-30 shall maintain the following records in a readily accessible location for at least 5 years and shall make these records available to the Director upon verbal or written request:

a. A record of central equipment maintenance, such as replacement of the carbon in a carbon adsorption unit.

b. The results of all tests conducted in accordance with the requirements in section 45CSR§21-30.4 (10.3.1).

[45CSR§21-30.5. and 45CSR§30-5.1.c.]

10.5. Reporting Requirements

10.5.1. Except as provided in section 45CSR§21-9.3, the owner or operator of any facility containing sources subject to 45CSR§21-5 shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information.

a. The name and location of the facility;

b. The subject sources that caused the excess emissions;

c. The time and date of first observation of the excess emissions; and

d. The cause and expected duration of the excess emissions.

e. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

f. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

[45CSR§21-5.2]

10.6. Compliance Plan

10.6.1. None.

Appendix A: R13-2365~~D~~E Attachments (C1P Area)

Attachment A
Monthly Records

DuPont Washington Works
Teflon PFA Area (C1)
Permit R13-2365~~D~~E
Current month:
Data entered by:
Date entered:
Reviewed by:
Date reviewed:
Delegated Authority:
Date reviewed:

Equipment	Equipment ID No.	Monthly Monitoring	
		Value	Parameter
Comonomer cylinders	C1FW		Cylinder disconnects – Comonomer A
Comonomer cylinders	C1FW		Cylinder disconnects – Comonomer B
~~Comonomer dryer~~	~~C1GY~~		~~System deinventory – Comonomer A~~
~~Comonomer dryer~~	~~C1GY~~		~~System deinventory – Comonomer B~~
~~Comonomer dryer~~	~~C1GY~~		~~System re-inventory – Comonomer A~~
~~Comonomer dryer~~	~~C1GY~~		~~System re-inventory – Comonomer B~~
Reactor	C1FQ		Aborted batches – after comonomer addition
Reactor	C1FQ		Aborted batches – after kickoff
Reactor	C1FQ		Normal batches – Product C
Reactor	C1FQ		Normal batches – All FP products
Reactor	C1FQ		Normal batches – All dispersion productions
Reactor	C1FQ		Maximum pressure after venting to monomers area
Reactor	C1FQ		Sumped batches
Totes	C1FR		# of totes prepared
~~Max. dispersion flow during month~~ Dryer	C1FS		Maximum dispersion flow to filter (lb/hr)
Dried polymer production	N/A		lb polymer
~~Max. sustained extruder screw speed~~ Extruder	C1FV		Maximum hourly screw speed
Polymer to mixer	N/A		lb polymer
Reactor	C1FE		Maximum bin weight for month
Reactor production	C1FE		# of batches
~~Reactor~~	~~C1CH~~		~~Maximum preweight for the month~~
~~Reactor~~	~~C1CH~~		~~# of batches~~
Extruder burnout oven	C1GR		Small packs cleaned
Extruder burnout oven	C1GR		Large packs cleaned
C1FSC1 filter delta P	C1FSC1		Maximum value (while running) (hourly average)
C1FEC scrubbing liquid conc., %	C1FEC		Minimum value (while running)
Reactor	C1FQ		# of completed GenX commercial dispersion batches included in count above
Reactor	C1FQ		# of aborted GenX commercial dispersion batches included in count above
Sump	C1GK		# of sumped GenX commercial dispersion batches included in count above
Extruder	C1FV		Total lbs of GenX commercial cube production (fluorinated and nonfluorinated) included in count above

Attachment B
Monthly Emissions

DuPont Washington Works
Teflon PFA Area (C1)
Permit R13-2365~~D~~E

Current month:

Emission Pt ID	Equipment ID	Monthly Emissions (lb)											
		VOC		ODC		PM_{10}		Acetonitrile		HF		APFO	
		max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month
~~C1CHE~~	~~C1CG, CH~~												
C1FCE	C1FC												
C1FEE	C1FA, FB, FD, FE, GN												
C1FFE	C1FF												
C1FGE	C1FG												
C1FQE	C1FQ, GH~~, GY~~												
C1FSE	C1FS, C1FK												
C1FUE	C1FU												
C1FVE1	C1FV												
C1FVE2	C1FV												
C1FWE	C1FW~~, GY~~												
C1GAE	C1GA												
C1GBE	C1GB												
C1GCE	C1GC												
C1GDE	C1GD												
C1GJE	C1GJ												
C1GPE	C1GP, GS, GT												
C1GQE	C1GQ												
C1GRE	C1GR												
C1GVE	C1GV												
C1GXE	C1GX~~, GY~~												
~~C1GYE~~ C1NPE	~~C1GY~~ CINP												
Area	C1FW												
Area	C1GK												
~~Area~~	~~C1GY~~												

Attachment C
Annual Emissions

DuPont Washington Works
Teflon PFA Area (C1)
Permit R13-2365~~D~~E

Current month:

Emission Pt ID	Equipment ID	VOC Emissions (lb)												
														12 Month Total
C1FCE, GAE, GBE, GCE	C1FC, GA, GB, GC													
C1FFE, FGE	C1FF, FG													
C1FQE	C1FQ, GH~~, GY~~													
C1FSE	C1FS													
C1FVE1	C1FV													
C1FVE2	C1FV													
C1FWE	C1FW~~, GY~~													
C1GDE	C1GD													
C1GXE	C1GX~~, GY~~													
~~C1GYE~~ C1NPE	~~C1GY~~ C1NP													
Area	C1FW													
Area	C1GK													
~~Area~~	~~C1GY~~													

Emission Pt ID	Equipment ID	ODC Emissions (lb)												
														12 Month Total
C1FQE	C1FQ, GH													
C1GDE	C1GD													
Area	C1GK													

Attachment C
Annual Emissions

DuPont Washington Works
Teflon PFA Area (C1)
Permit R13-2365~~D~~E

Current month:

Emission Pt ID	Equipment ID	PM_{10} Emissions (lb)												
														12 Month Total
~~C1CHE~~	~~C1CH~~													
C1FCE, GAE, GBE, GCE	C1FC, GA, GB, GC													
C1FEE	C1FE													
C1FFE, FGE	C1FF, FG													
C1FSE	C1FS, C1FK													
C1FUE	C1FU													
C1FVE1	C1FV													
C1GJE	C1GJ													
C1GPE	C1GS, GT													
C1GQE	C1GQ													
C1GVE	C1GV													

Equipment ID	Emission Pt ID	APFO Emissions (lb)												
														12 Month Total
C1FS	C1FSE													

Attachment C
Annual Emissions

DuPont Washington Works
Teflon PFA Area (C1)
Permit R13-2365~~D~~E

Current month:

Emission Pt ID	Equipment ID	HF Emissions (lb)												12 Month Total
~~C1CHE~~	~~C1CH~~													
C1FEE	C1FA, FB, FD, FE													
C1FVE2	C1FV													
C1GRE	C1GR													

Emission Pt ID	Equipment ID	Acetonitrile Emissions (lb)												12 Month Total
C1FQE	C1FQ~~, GY~~													
C1FWE	C1FW~~, GY~~													
C1GDE	C1GD													
C1GXE	C1GX~~, GY~~													
~~C1GYE~~	~~C1GY~~													
Area	C1FW													
Area	C1GK													
~~Area~~	~~C1GY~~													

Attachment D
§45-21-40.3.a.1 Sources

Emission Point	Control Device ID	Control Device Description	Source ID	Source Description	Applicable Permit*
B8A, B8B	B8A, B8B	Scrubber	B8-1, B8-2, B8-3, B8-4, B8-5, B8-6, B8-7, B8-8	Reactors	R13-2380A
DOM/HZZ	DOM/HZZ	CFB/Flare	DOC, DOD	Maintenance diverts – cannot occur at same time	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DMM, DML, DDL, DDS, DEP, DEU, GBU	Columns	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DLM/HBJ, DLR/HBK, DGV	Condensers	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DMH, DOO, DOP, HBA, DIC, DIF, DIG, DON, DOQ	Tanks	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DGQ, DGR, DGS, DPH, DPL, HAA, HAB, HAD, HAF, HAH	Reactors	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	GAN, GAO, GAZ, GBA	Silos	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DJU, DJT	Dryers	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DIE, HBM	Product isolation	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DGX	Absorber	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	DJV	Conveyor	R13-1849A
DOM/HZZ	DOM/HZZ	CFB/Flare	HAS, HSB, HSC, HFA	Pilot Plant	NIS
DOX	DHT	Condenser	GAD, GAE, GAF	Reactor cleaning	R13-1849A
DAG	DAG	Scrubber	DAE, DAF, DAG	Tanks	R13-1596B
DAK	DAK	Scrubber	DAL, DAJ, DAM, DDO, DEA, DEB, DEC	Tanks (DAJ & DAM are NIS)	R13-1849A
DOW	N/A	N/A	DOW	Sump	R13-1849A
DOY	N/A	N/A	DOY	Sump	R13-1849A
DOZ	N/A	N/A	DOZ	Sump	R13-1849A
DPA	N/A	N/A	DPA	Sump	R13-1849A
DMW	N/A	N/A	DMW	Tank (NIS)	R13-1849A
DMI	N/A	N/A	DMI	Tank	R13-1849A
DCY	N/A	N/A	DDF	Tank	R13-1849A
DCY	N/A	N/A	DCV	Condenser	R13-1849A
DCY	N/A	N/A	DCL	Column	R13-1849A
DNC	N/A	N/A	DNC	Lump pot	R13-1849A
DCF	N/A	N/A	DCF	Tank	R13-1849A
DCG	N/A	N/A	DCG	Tank	R13-1849A
DFI	N/A	N/A	HAV, HAW, HAX, HAY, HAZ	Truck loading – tank maintenance de-inventory	R13-1849A
HBZ	N/A	N/A	HBZ	Comparable fuels loading	R13-1849A
HBY	N/A	N/A	HBY	Comparable fuels loading	R13-1849A

Emission Point	Control Device ID	Control Device Description	Source ID	Source Description	Applicable Permit*
DBJ	DBJ	Catalytic Converter	DBN	Recycle splitter (45CSR21 – §39 process)	R13-1596B
DBK	DBK	Condenser	DBK	Tank	R13-1596B
C1JEE	N/A	N/A	C1JO	Tank	NIS
C1JEE	N/A	N/A	C1JE	Tank	R13-0822A
C1JDE	N/A	N/A	C1JD	Dryer	NIS
C2EJE	N/A	N/A	C2DC, C2DG	Reactors	R13-1953C
C3HPE	N/A	N/A	C3HO	Reactor – maintenance only	R13-2391C
C3HE	N/A	N/A	C3HI	Reactor – maintenance only	R13-2391C
C3HE	N/A	N/A	C3HJ	Column	R13-2391C
T7IME	T7IMC	Thermal Converter/ Scrubber	T1BW, T1BX, T1XC	Absorbers	R13-1823B
T7IME	T7IMC	Thermal Converter/ Scrubber	T4GM	Column	R13-1823B
T4GAE	N/A	N/A	T4GM/T4GA	Column – when T7IMC is unavailable	R13-1823B
T5HCE	N/A	N/A	T5HC	Reactor	R13-1353B
T5HDE	N/A	N/A	T5HD	Reactor	R13-1353B
T6IBE	N/A	N/A	T6IB	Reactor	R13-0815E
T6ICE	N/A	N/A	T6IC	Reactor	R13-0815E
T6IDE	N/A	N/A	T6ID	Reactor	R13-0815E
T6IUE	N/A	N/A	T6IU	Reactor – RACT	R13-0815E
22-3-01	N/A	N/A	22-3-01	Reactor	NIS
TECE, TEDE	N/A	N/A	TED, TEC	Dryers	NIS
TFFE, TFGE	N/A	N/A	TFF, TFG	Dryers	NIS
T7IME	N/A	N/A	TEB	Tank	NIS
T7IME	N/A	N/A	TEA	Stripper column	NIS

NIS = Not In Service

* The applicable permit at issuance of this permit. Modification or update of an applicable permit does not require update of this permit solely to update this table.

Appendix B: R13-1953~~G~~H Attachments (C2 Area)

Attachment A - Monthly Recordkeeping (Equipment)

DuPont Washington Works – Area (C2) – Permit R13-1953~~G~~H

Current Month:

Data entered by:

Date entered:

Reviewed by:

Date Reviewed:

Equipment ID	Monthly Monitoring	
	Value	Parameter
C2DP		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2EP		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DX – tank		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DX – bottom valve		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DX – top valve		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DY – tank		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DY – bottom valve		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DY – top valve		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2DR		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
C2EE		# of times system deinventoried through ~~C2EJE~~ System #1
		# of times system deinventoried through ~~C2EFE~~ System #2
Facility		# of completed batches
~~C2DA~~ Facility		# of completed GenX batches
C2DA		# of completed dispersion batches
C2DA		# of GenX dispersion batches
~~C2DTE~~ C2DT		Max~~imum~~ pph held for one hour during the month
C2DW		max pph held for one hour during the month
C2EH		max pph held for one hour during the month
C2DT, C2DW, C2EH		max pph rate of all TDD for one hour during the month
C2DS		pounds of flake to flake packout
C2EN		max~~imum~~ pph for month conveyed ~~for month~~ from TDD to compactor
~~C2DI~~		~~# of trays processed~~
~~C2DI~~		~~maximum # of trays in one hour~~
~~C2EB~~		~~maximum RPM held for one hour~~
C2ER		max~~imum~~ RPM held for one hour
~~C2EB,~~ C2ER		total rework weight for month
C2EV		# of makeup cartridges used
		# of ink cartridges used
		# of wash bottles used
C2EQ		# of screenpacks

Attachment B - Monthly Emissions
DuPont Washington Works – Area (C2) – Permit R13-1953~~G~~H

Current Month:

Emission Point ID	Equipment ID	VOC		ODC		PM_{10}		APFO		HF		Toluene lb/month	Total HAPs lb/month
		max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month		
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX												
~~C2DBE~~	~~C2DI, C2KL~~												
C2DHE	C2DH												
~~C2DJE~~	~~C2DJ~~												
C2DKE	C2DK												
~~C2DME~~	~~C2DM~~												
C2DSE	C2DS												
C2DTE	C2DW, C2EH												
~~C2EBE1~~ ~~C2EBE2~~	~~C2EB~~												
C2EFE	C2EJ, C2EF												
C2EGE	C2EG												
C2EJE	C2EJ, C2DG												
C2ENE	C2EN												
C2EQE	C2EQ												
C2ERE	C2ER												
C2ETE	C2ET												
C2EUE	~~C2DO,~~ C2EU												
C2EVE	C2EV												
~~C2KAE~~	~~C2KJ~~												
C2KDE	C2KD												
~~C2KIE~~	~~C2KI~~												
~~C2KNE~~	~~C2KN~~												
C2KOE1	C2KO												
C2KPE	C2KP												
C2KUE	C2KU												
Area	C2KQ												
~~Monthly Totals~~													

~~**Monthly Production** *Total Batches:*~~
~~*Total Dispersion Batches:*~~
~~*Total Trays:*~~

Attachment C – Annual Emissions
DuPont Washington Works – Area (C2) – Permit R13-1953~~G~~H

Current Month:

Emission Point ID	Equipment ID	VOC Emissions (lb)												12 Month Total
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX													
~~C2DBE~~	~~C2DI, C2KL~~													
C2DHE	C2DH													
~~C2DJE~~	~~C2DJ~~													
C2DKE	C2DK													
~~C2DME~~	~~C2DM~~													
~~C2EBE1~~ ~~C2EBE2~~	~~C2EB~~													
C2EFE	C2EJ, C2EF													
C2EGE	C2EG													
C2EJE	C2EJ, C2DG													
C2EQE	C2EQ													
C2ERE	C2ER													
C2ETE	C2ET													
C2EVE	C2EV													
~~C2KAE~~	~~C2KJ~~													
C2KDE	C2KD													
~~C2KIE~~ C2DTE	~~C2KI~~ C2DW, C2EH													
Area	C2KQ													
Totals														

Emission Point ID	Equipment ID	ODC Emissions (lb)												12 Month Total
C2EFE	C2EJ, C2EF													
C2EJE	C2EJ, C2DG													
Totals														

Attachment C – Annual Emissions
DuPont Washington Works – Area (C2) – Permit R13-1953~~G~~H

Current Month:

Emission Point ID	Equipment ID	PM_{10} Emissions (lb)												
														12 Month Total
~~C2DBE~~	~~C2DI, C2KL~~													
~~C2DJE~~	~~C2DJ~~													
C2DKE	C2DK													
~~C2DME~~	~~C2DM~~													
C2DSE	C2DS													
C2DTE	C2DW, C2EH													
~~C2EBE1~~ ~~C2EBE2~~	~~C2EB~~													
C2EGE	C2EG													
C2ENE	C2EN													
C2EQE	C2EQ													
C2ERE	C2ER													
C2EUE	C2DO, C2EU													
~~C2KIE~~	~~C2KI~~													
C2KPE	C2KP													
Totals														

Emission Point ID	Equipment ID	APFO Emissions (lb)												
														12 Month Total
C2DTE	C2DW, C2EH													

Attachment C – Annual Emissions
DuPont Washington Works – Area (C2) – Permit R13-1953~~G~~H

Current Month:

Emission Point ID	Equipment ID	HF Emissions (lb)												12 Month Total
~~C2DBE~~	~~C2DI, C2KL~~													
C2DHE	C2DH													
~~C2DME~~	~~C2DM~~													
~~C2EBE1~~ ~~C2EBE2~~	~~C2EB~~													
C2EQE	C2EQ													
C2ERE	C2ER													
C2ETE	C2ET													
~~C2KAE~~	~~C2KJ~~													
C2KDE	C2KD													
~~C2KIE~~	~~C2KI~~													
~~C2KNE~~	~~C2KN~~													
C2KOE1	C2KO													
C2KUE	C2KU													
Totals														

~~Emission Point ID~~	~~Equipment ID~~	~~Toluene Emissions (lb)~~												~~12 Month Total~~
~~C2EFE~~	~~C2EF, C2EJ~~													
~~C2EJE~~	~~C2DG, C2EJ~~													
~~Totals~~														

Emission Point ID	Equipment ID	Total HAPs (lb)												12 Month Total
C2EVE	C2EV													
C2EFE	C2EF, C2EJ													
C2EJE	C2DG, C2EJ													
Totals														

Attachment D – Monthly Recordkeeping – Control Devices and Inherent Process Devices
DuPont Washington Works – Area (C2) – Permit R13-1953~~G~~H

Current Month:
Data entered by:
Date entered:
Reviewed by:
Date reviewed:

Equipment Name	ID No.	Interlock Tripped? (Yes or No)
Scrubber	C2DWC2	
Scrubber	C2EHC2	
Scrubber	C2DTC3	
~~Scrubber~~	~~C2DBC~~	
Vacuum Pump	C2EQC	

Appendix C: R13-2391G Attachments (C3 Area)

ATTACHMENT A
TELOMERS AREA (C3)
Permit R13-2391G
MONTHLY EQUIPMENT RECORD SHEET

Month:_____ Year: _____

Activity or Equipment Description	Equipment ID No.	Monthly Monitoring	
		Value Recorded	Parameter Monitored
C3 Line 3 Batches Reacted	Facility		# of batches reacted on Line 3
C3 Line 2 Batches Reacted	Facility		# of batches reacted on Line 2
Product A Trailers	Facility		# of Product A trailers loaded
Product A Trailers (T71MC Down)	Facility		# of Product A trailers loaded
Product B Trailers	Facility		# of Product B trailers loaded
Product B Trailers (T71MC Down)	Facility		# of Product B trailers loaded
Product C Trailers	Facility		# of Product C trailers loaded
Product C Trailers (T71MC Down)	Facility		# of Product C trailers loaded
Cleaning Reactor Line 2	C3HI		# of times L2 Reactor cleaned
Cleaning Reactor Line 3	C3HO		# of times L3 Reactor cleaned
Tank	C3HN		# of tank cleanings
Tank	C3IL		# of tank cleanings
Tank	C3HS		# of tank cleanings
Tank	C3HT		# of tank cleanings
Tank	C3IH		# of tank cleanings
Maximum Value for Changing Out Scrubber Fluid	C3HGC (Line 2)		Maximum Value
Number of Times Calculated Variable Exceeded ‘63’	C3HGC (Line 2)		# of Times
Maximum Value for Changing Out Scrubber Fluid	C3HPC (Line 3)		Maximum Value
Number of Times Calculated Variable Exceeded >63’	C3HPC (Line 3)		# of Times

ATTACHMENT B
TELOMERS AREA (C3)
Permit R13-2391G
MONTHLY EMISSIONS RECORD
Month: _____ Year: _____

Emission Point ID	Source ID	VOC		HF		PM10	
		Max lb/hr	Lb/month	Max lb/hr	Lb/month	Max lb/hr	Lb/month
C3HG2E	C3HG						
C3HGE	C3HG						
	C3HH						
C3HIE	C3HI						
	C3HJ						
	C3HT						
	C3IH						
	C3IK						
	C3IJ						
C3HPE	C3HK						
	C3HL						
	C3IF						
	C3IL						
	C3HM						
	C3HP						
	C3IV						
	C3HO						
	C3HQ						
	C3HN						
	C3HS						
	C3HD						
	C3ID						
	C3HX						
	C3IE						
	C3IT						
	C3IG						
	C3HA						
	C3HB						
	C3IX						
	C3IY						
	C3IZ						
C3IPE	C3IP						
	C3JA						
C3IPE	C3IP						
C3IQE	C3IQ						
AREA	C3IW						
MONTHLY TOTALS							
C3HG2E							
C2HGE							
C3HIE							
C3HPE							
C3IPE							
C3IQE							
AREA							
TOTAL -							

ATTACHMENT C
Permit R13-2391G
Annual Emissions Log

Current Month: _____

Table C.1. – VOC Emissions (pounds)

Emission Point ID	Emission Source ID	Months											12 Month Total
C3HIE	C3HI												
	C3HJ												
	C4HT												
	C3IH												
	C3IK												
	C3IJ												
C3HPE	C3HO												
	C3HQ												
	C3HN												
	C3HS												
	C3HD												
	C3IP												
	C3ID												
	C3HX												
	C3IE												
	C3IL												
	C3IT												
	C3HA												
	C3HB												
	C3HE												
	C3HR												
	C3IX												
	C3IY												
	C3IZ												
C3IPE	C3IP												
	C3JA												
C3IQE	C3IQ												
TOTAL -													

ATTACHMENT C
Permit R13-2391G
Annual Emissions Log

Current Month: _____

Table C.2. – HF Emissions (pounds)

Emission Point ID	Emission Source ID	Months											12 Month Total
C3HGE	C3HL												
	C3HM												
C3HPE	C3IV												
	C3IF												
	C3HP												
AREA	C3IW												
TOTAL –													

Table C.3. – PM10 Emissions (pounds)

Emission Point ID	Emission Source ID	Months											12 Month Total
C3HGE	C3HG												
	C3HH												
C3HG2E	C3HG												
C3HPE	C3HK												
AREA	C3IW												
TOTAL –													

Table C.4. – Annual Production (batches)

	Months											12 Month Total
Line 3 Batches Produced												
Line 2 Batches Produced												

Appendix D: R13-1823I Attachments (T1, T2, T3, T4, & T7 Areas)

ATTACHMENT A
DuPont Washington Works
Teflon Monomers Area
Recordkeeping for Process Emissions

Current Month:
Data entered by:
Date entered:
Reviewed by:
Date reviewed:

Equipment	Equip. ID	Emission Pt. ID	Monthly Parameters Max/hr	Total	Units
No. 6 Furnace - Process	T1CA	T1CAE			MM scf
No. 7 Furnace - Process	T1CB	T1CBE			MM scf
No. 8 Furnace - Process	T1CC	T1CCE			MM scf
No. 9 Furnace - Process	T1CD	T1CDE			MM scf
Cooler/Absorber Air Stripper	T2ES	T2ERE			lb 36% (wt) HCl
Emergency Generator	T7JJ	T7JJE			Hrs Operation
Column - Process Vent (Problems with C/A)	T2XM	T7XIE			hrs vented
Column - Process Vent (High Inerts)	T2XM	T7XIE			hrs vented
Primary Column - Condenser Operating Vents	T1XD	T7XIE			lbs vented
Distillate Storage Tanks - Process	T1BP-T	T7XIE			Tank vents
Brine Sent to T/C	T4GM	T7MIE			lbs
Brine System - Starting Inventory	T7AB	T7ABE	*		gal
Brine System - Ending Inventory	T7AB	T7ABE	*		gal
Brine System - Amount Added	T7AB	T7ABE	*		gal
Brine System - Amount Shipped in Waste	T7AB	T7ABE	*		gal
Brine System - Amount Spilled	T7AB	T7ABE	*		gal
Number of hours Cooler Absorber Vent went to NTFS	T2XH&T2XL	T2ERE	n/a		hrs/this month
Average Brine Storage Tank Vapor Pressure	T7AA	T7AAE		n/a	psia
MGH Vent Stack	T1GN	T1GNE			pph-VOC

Thermal Converter Feed Rates:

Equipment	Equip. ID	T/C Operating Max/hr	T/C not Operating Max/hr	Total		Max /hr Units
Recovery Column - Process - Thermal Con.	T4GM					
FP/D Autoclaves #8 & #9 (PFA only)	T6ID & T6IU			*	*	lb OH
PFA Autoclave (Aqueous) -Aborted Batches	C1FQ			*	*	batches
PFA Autoclave (Aqueous) -Normal Batches	C1FQ			*	*	batches
L3 Extruder Vent	C2ES	N/A		*		batches
Telomers Vent Accumulator	C3IZ			N/A	N/A	lb feed
Heels Column Process Vent	T4XK					
Heels Column Pot Vent	T4XK			**	**	lb OH
Portable Container Facility - Thermal Converter	T7EM			**	**	lb feed
Thermal Converter Combustion Emissions	T7IMC			**	**	lb F23
						MM scf

* These vent to the Mixed Gas Holder when the T/C is down.
** These streams are not vented when the T/C is down.

ATTACHMENT B

DuPont Washington Works
Teflon Monomers Area

Recordkeeping for Maintenance Emissions

Current Month:
Data entered by:
Date entered:
Reviewed by:
Date reviewed:

Equipment	Equipment ID	Emission Pt. ID	Maintenance operation	Current Month No. of Events	Permit Frequency (per yr)[a]
Mixed Gas Holder	T1GN	T1GNE	Clear		2
Storage Tank & Vaporizer	T1LF	T2ERE T7XIE	Clear		2
Coolers - Press. Purge	T1DD-F	T7IME	Clear		156
Bag Filters - Press. Purge	T1DG&H	T7IME	Clear		16
Column & Piping - Press. Purge	T1XD	T7IME	Clear		3
Column - Maintenance - PP	T4GM	T7IME	Clear		3
Storage Tank - Thermal Converter	T4GO	T7IME	Clear		3
Storage Tanks - Maintenance	T1BP-T	T7XIE	Evacuate		9
Column - Evacuate Column	T4GS	T7XIE	Evacuate		3
Column - Detox/Dry	T4GS	T7XIE	Detox/dry Column		2
Storage Tank	T4GU, T4GV	T7XIE	Evacuate		10
Shipping Tank	T4GW	T7XIE	Evacuate		3
Shipping Tank	T4GX	T7XIE	Evacuate		3
Cylinder Loading	T4KA	T7XIE	Evacuate		600
Cylinder Loading	T4KA	T7XIE	Evacuate		250
Feed Tank	T4KB	T7XIE	Evacuate		3
Tank Truck Loading	T4KC	T7XIE	Evacuate		12
Tank Car Loading	T4KD	T7XIE	Evacuate		6

[a] This is the frequency that was assumed in calculation emission limits for the R13 permit.

ATTACHMENT C

DuPont Washington Works
Teflon Monomers Area
Recordkeeping for Control Devices

Current Month:		
Data entered by:		
Date entered:		
Reviewed by:		
Date reviewed:		

North Tank Farm Scrubber (T2ERC)	***Value***	***Units***
Minimum Liquor Flow		lb/hr
Maximum Scrubber Temperature		Deg C
Minimum Re-circulation Pump Current (or Minimum Liquor Flow and Maximum Scrubber Temperature)		amps
Thermal Converter - Combustion (T7IMC)	***Value***	***Units***
Minimum Combustion Chamber Temperature		Deg F
Maximum Waste Gas Feed Rate		lb/hr
Maximum Charge Rate (HFC-23 from tank car unloading for CISWI)		lb/hr
Thermal Converter - Scrubber (T7IMC)	***Value***	***Units***
Maximum Gas Stream Flow		pph
Minimum Pressure Drop Across the Wet Scrubber		in. wc
Minimum Re-circulated Liquor Flow (1st Stage)		gpm
Minimum Re-circulation Pump Current (1st Stage)		amps
Minimum Scrubber Liquor Flow (4th Stage) (Dilute Na_2SO_3, pH adjusted)		gpm
Liquor Oxidation/Reduction Potential (4th Stage)		Millivolts vs Ag/AgCl ref. electrode
Minimum Scrubber Liquor pH (4th Stage)		
Maximum Scrubber Effluent pH (4th Stage)		
Neutralization System Scrubber (T7JDC)	***Value***	***Units***
Scrubber Liquor Flow		gpm
Daily Confirmation of Blower Operation		
South Stillhouse Scrubber (T7XIC)	***Value***	***Units***
Maximum Scrubber Temperature		Deg F
Minimum Scrubber Liquor Circulation Rate		gpm
Maximum Vent Flow Discharge Rate		lb/hr HCl

ATTACHMENT D – Monthly Process Emissions

Emission Point Name	Emission Pt. ID	PRIORITY POLLUTANT Max lb/hr	Limit	lb/month
Furnace	T1CAE			
Furnace	T1CBE			
Furnace	T1CCE			
Furnace	T1CDE			
Dryers	T1DBE			
Raw Material Unloading	T1JBE			
North Tank Farm Scrubber	T2ERE			
Trailer Loading	T2EXE			
Analyzer	T2EYE			
Storage Tank	T4GBE			
Cooling Tower	T7AKE			
Portable Container Facility	T7EME			
Thermal Converter Stack	T7IME			
Lime Silo	T7IOE			
Emergency Generator	T7JJE			
South Central Vent Stack	T7XIE			
MGH Vent Stack	T1GNE			
Total Monthly Process Emissions				

Emission Point Name	Emission Pt. ID	Monthly Process HAP Emissions Max lb/hr	Limit	lb/month
North Tank Farm Scrubber	T2ERE			
Storage Tank	T4GBE			
Brine System Losses	T7XIE			
Portable Container Facility	T7EME			
Thermal Converter Stack - Process	T7IME			
Waste Acid Neutralization Tanks	T7JCE			
South Central Vent Stack - Process	T7XIE			
Total Monthly Process Emissions				

Monthly Maintenance Emissions

Emission Point Name	Emission Pt. ID	Monthly Maintenance Emissions (lb) VOC	HCl	HF
Mixed Gas Holder	T1GNE			
No. 1 F22 Feed Pump	T1LHE			
No. 2 F22 Feed Pump	T1LIE			
North Tank Farm Scrubber	T2ERE			
Toluene Storage Tank	T4GBE			
Methanol Storage Tank	T4GCE			
Thermal Converter Stack	T7IME			
South Central Vent Stack	T7XIE			
Total Monthly Maintenance Emissions				

ATTACHMENT E - Annual Emissions

Annual Emissions - Running 12 Month Totals

Emission Point Name	Emission Pt. ID	Process VOC Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
No. 6 TFE Furnace - Combustion	T1CAE				
No. 7 TFE Furnace - Combustion	T1CBE				
No. 8 TFE Furnace - Combustion	T1CCE				
No. 9 TFE Furnace - Combustion	T1CDE				
MGH - Recycle Gas Dryers #1 &#2	T1DBE				
F22 Unloading	T1JBE				
North Tank Farm Scrubber	T2ERE				
TFE-CO2 Loading (Local)	T2EXE				
TFE-CO2 Analyzer	T2EYE				
T4 Area Storage Tank	T4GBE				
Portable Container Facility (Local)	T7EME				
Thermal Converter	T7IME				
Emergency Generator	T7JJE				
South Central Vent Stack	T7XIE				
MGH Vent Stack	T1GNE				
Total Process VOC Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process SO_2 Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
No. 6 TFE Furnace - Combustion	T1CAE				
No. 7 TFE Furnace - Combustion	T1CBE				
No. 8 TFE Furnace - Combustion	T1CCE				
No. 9 TFE Furnace - Combustion	T1CDE				
Thermal Converter	T7IME				
Emergency Generator	T7JJE				
Total Process SO_2 Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process NO_x Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
No. 6 TFE Furnace - Combustion	T1CAE				
No. 7 TFE Furnace - Combustion	T1CBE				
No. 8 TFE Furnace - Combustion	T1CCE				
No. 9 TFE Furnace - Combustion	T1CDE				
Thermal Converter	T7IME				
Emergency Generator	T7JJE				
Total Process NO_x Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process CO Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
No. 6 TFE Furnace - Combustion	T1CAE				
No. 7 TFE Furnace - Combustion	T1CBE				
No. 8 TFE Furnace - Combustion	T1CCE				
No. 9 TFE Furnace - Combustion	T1CDE				
Thermal Converter	T7IME				
Emergency Generator	T7JJE				
Total Process CO Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process PM_{10} Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
No. 6 TFE Furnace - Combustion	T1CAE				
No. 7 TFE Furnace - Combustion	T1CBE				
No. 8 TFE Furnace - Combustion	T1CCE				
No. 9 TFE Furnace - Combustion	T1CDE				
Cooling Tower	T7AKE				
Thermal Converter	T7IME				
Lime Silo	T7IOE				
Emergency Generator	T7JJE				
Total Process PM_{10} Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process HCl Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
North Tank Farm Scrubber	T2ERE				
Thermal Converter Stack	T7IME				
Neutralization System Scrubber	T7JDE				
South Central Vent Stack	T7XIE				
Total Process HCl Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process HF Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
Portable Container Facility	T7EME				
Thermal Converter Stack	T7IME				
Total Process HF Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process Methanol Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
South Central Vent Stack	T7XIE				
Total Process Methanol Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process Methylene Chloride Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
Brine System Losses	T7XIE				
Thermal Converter Stack	T7IME				
Total Process Methylene Chloride Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process Toluene Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
Storage Tank	T4GBE				
Thermal Converter Stack	T7IME				
Total Process Toluene Emissions (lb)					

Emission Point Name	Emission Pt. ID	Process APFO Emissions (lb) Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
South Central Vent Stack	T7XIE				
Total Process APFO Emissions (lb)					

Pollutant	Total Maintenance Emissions (lb)			
	Month-Year ___-___	Month-Year ___-___	Month-Year ___-___	Permit Limit (TPY)
VOC				
HCl				
HF				
Methanol				
Toluene				
Acetonitrile				

ATTACHMENT F - Furnace Log

Date	Furnace	Startup	Shutdown

No. 6 TFE Furnace - Process	T1CA
No. 7 TFE Furnace - Process	T1CB
No. 8 TFE Furnace - Process	T1CC
No. 9 TFE Furnace - Process	T1CD

ATTACHMENT G - Malfunction Log

Date	Equipment	Malfunction Cause	Duration	Corrective Action	Increased Emissions, lbs.	Preventing Future Occurrences

ATTACHMENT H - Odor Log

Date	Cause	Actions Taken

Appendix E: R13-2617D Attachment A for the Fluoropolymer Production Area

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
C1-P Area	C1FW-3	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1-P Area	C1FW-4	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1-P Area	C1FW-5	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C1-P Area	C1FW-6	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C1FQE	C1FW-3	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1FQE	C1FW-4	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1FQE	C1FW-5	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C1FQE	C1FW-6	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C1FWE	C1FW-1	Cylinder Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1FWE	C1FW-2	Cylinder Change	None	VOC	R13-2365D	No	Yes	No	
C1FWE	C1FW-3	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1FWE	C1FW-4	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1FWE	C1FW-5	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C1FWE	C1FW-6	System Inventory	None	VOC	R13-2365D	No	Yes	No	
~~C1GYE~~	~~C1FW-3~~	~~System Deinventory~~	~~None~~	~~VOC~~	~~R13-2365D~~	~~No~~	~~Yes~~	~~No~~	
~~C1GYE~~	~~C1FW-4~~	~~System Deinventory~~	~~None~~	~~VOC~~	~~R13-2365D~~	~~No~~	~~Yes~~	~~No~~	
~~C1GYE~~	~~C1FW-5~~	~~System Inventory~~	~~None~~	~~VOC~~	~~R13-2365D~~	~~No~~	~~Yes~~	~~No~~	
~~C1GYE~~	~~C1FW-6~~	~~System Inventory~~	~~None~~	~~VOC~~	~~R13-2365D~~	~~No~~	~~Yes~~	~~No~~	
C1JDE	C1JD	Monomer Dryer	None			Yes			Removed from Service (Note #4)
C1JEE	C1JE	Monomer Recovery Tank	C1FNC			Yes			Removed from Service (Note #4)
C1JME	C1JO	Tank	C1JMC			Yes			Removed from Service (Note #4)
C1NEE	C1JU	Tube				Yes			Removed from Service (Note #4)
C1NEE	C1JB	Tank				Yes			Removed from Service (Note #4)
C1NEE	C1JK	Refining				Yes			Removed from Service (Note #4)
C1NEE	C1JI	Separator				Yes			Removed from Service (Note #4)
C1XGE	C1FW-3	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1XGE	C1FW-4	System Deinventory	None	VOC	R13-2365D	No	Yes	No	
C1XGE	C1FW-5	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C1XGE	C1FW-6	System Inventory	None	VOC	R13-2365D	No	Yes	No	
C2DAE	C2EC	Mix Tank	None	VOC	R13-1953G	No	Yes	No	
C2EJE	C2DP	Ingred. System Maintenance	None	VOC	R13-1953G	No	Yes	No	
C2EJE	C2DC	Reactor	None	VOC	R13-1953G	Yes			Removed from Service (Note #4)

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
C2EJE	C2DG	Reactor	None	VOC	R13-1953G	Yes	Yes	No	
C2EJE	C2DR	Ingred. System Maintenance	None	VOC	R13-1953G	No	Yes	No	
C2EJE	C2DX	Ingred. System Maintenance	None	VOC	R13-1953G	No	Yes	No	
C2EJE	C2DY	Ingred. System Maintenance	None	VOC	R13-1953G	No	Yes	No	
C2EJE	C2EE	Ingred. System Maintenance	None	VOC	R13-1953G	No	Yes	No	
C2EFE	C2EF	Reactor	None	VOC	R13-1953G	No	Yes	No	
C2EJE	C2EP-1	Ingred. System Maintenance	None	VOC	R13-1953G	No	Yes	No	
C3 Area	Section C	Brine System - LDAR	None	TAP-M		No	No	Yes	Consolidated with T Area Brine System
C3HGE	C3HI	Reactor	None	VOC	R13-2391D	Yes	Yes	No	
C3HGE	C3HI-1	Reactor Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HGE	C3HJ	Distillation Column	None	VOC	R13-2391D	Yes	Yes	No	
C3HGE	C3HT-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HGE	C3IH-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HGE	C3IK-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HGE	C3IL-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3HA-1	Scrubber Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3HB-1	Scrubber Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3HN-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3HO	Reactor	None	VOC	R13-2391D	Yes	Yes	No	
C3HPE	C3HO-1	Reactor Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3HS-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3ID-1	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
C3HPE	C3IT	Tank Maintenance	None	VOC	R13-2391D	No	Yes	No	
CDRE	System	System Inventory	None	VOC		No	Yes	No	
T Area	Section T	Brine System - LDAR	None	TAP-M	R13-1823H	No	No	Yes	40 CFR 63.2346 (OLD MACT)
T1GNE	T1GN	Accumulator Maintenance	None	VOC	R13-1823H	No	Yes	No	
T2ECE	T2EC	Gas Scrubber	None			Yes			Removed from Service (Note #4)
T2ECE	T2ED	Gas Scrubber	None			Yes			Removed from Service (Note #4)
T2ECE	T3FF	Gas Dryer	None			Yes			Removed from Service (Note #4)
T2ECE	T3FG	Gas Dryer	None			Yes			Removed from Service (Note #4)
T4GBE	T4GB	Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
T4GME	T4GM	Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T5HCE	T5HC	Reactor	None	VOC	R13-1353C	Yes	Yes	No	
T5HDE	T5HD	Reactor	None	VOC	R13-1353C	Yes	Yes	No	
T7XIE	T5HM	Monomer System	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T5HCE	T5HN	Monomer System	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T7XIE	T5HP	Salt Tanks	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T5HTE	T5HT	Refrigerated Monomer Storage	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T5HUE	T5HU	Refrigerated Monomer Storage	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T5HVE	T5HV	Refrigerated Monomer Storage	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T5HCE	T5HW	Weigh Tanks	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T5HDE	T5HX	Weigh Tanks	None	VOC	R13-1353C	No	Yes	No	Intermittent maintenance emissions only.
T6IBE	T6IB	Reactor	None	VOC	R13-0815F	Yes	Yes	No	
T6IBE	T6IL-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6ICE	T6IC	Reactor	None	VOC	R13-0815F	Yes	Yes	No	
T6ICE	T6IJ-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6IDE	T6ID	Reactor	None	VOC	R13-0815F	Yes	Yes	No	
T6IDE	T6IK-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6IDE	T6PB-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6IDE	T6PI-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6IDE	T6PJ-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6PGE	T6PG	Process Tank	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance emissions only.
T6PGE	T6PH	Process Tank	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance emissions only.
Area	T6PT	Decanter	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance emissions only.
T6IBE	T6QJ	Salt Tank	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance emissions only.
T6ICE	T6QK	Salt Tank	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance emissions only.
T6IDE	T6QL	Salt Tank	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
									emissions only.
T6IUE	T6QM	Salt Tank	None	VOC	R13-0815F	No	Yes	No	Intermittent maintenance emissions only.
T6IUE	T6IL-1	Ingred. Tank Maintenance	None	VOC	R13-0815F	No	Yes	No	
T6IUE	T6IU	Reactor	None	VOC	R13-0815F	No	Yes	No	
T7IME	C1GH	Ingred. System S/U	T7IMC	VOC	R13-2365D	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1BW	Acid Absorber	T7IMC	VOC	R13-1823H	Yes	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1BX	Acid Absorber	T7IMC	VOC	R13-1823H	Yes	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1CV	Dryer Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DD	New Cooler Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DE	New Cooler Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DF	New Cooler Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DG	Bag Filter Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DH	Bag Filter Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DU	High Press. Piping Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XA	New Compressor Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XC	Acid Absorber	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XD	New Column Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XG	New Column Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XO	New Column Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T2EB	Monomer Purification	T7IMC			Yes			Removed from Service (Note #4)
T7IME	T4GA	Column	T7IMC	VOC	R13-1823H	Yes	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T4GO	Column Maintenance	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T4XK	New Column (replaced TFL)	T7IMC	VOC	R13-1823H	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
T7XIE	T1BB	Compressor Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BC	Compressor Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BD	Compressor Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BE	Air Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BF	Air Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BG	Air Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BH	Air Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BI	Air Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BJ	Air Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BO-1	#2 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BO-2	#2 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BP-1	#1 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BP-2	#1 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BR-1	#3 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BR-2	#3 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BS-1	#4 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BS-2	#4 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BT-1	#5 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1BT-2	#5 Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1CB	Furnace Maintenance #7	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1CC	Furnace Maintenance #8	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1CD	Furnace Maintenance #9	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1CW	Emergency Storage Tank Maint.	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1DS	Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1DT	Intercooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1DU	High Press. Piping Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1EE	On-Line Analyzer Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1EV	Furnace Maintenance #6	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1OU	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1XA	New Compressor Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T1XD	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
T7XIE	T1XG	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T2XJ	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T2XM	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T2XN	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T2XS	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T2XV	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T3FB	New Cooler Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GO	Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GP	Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GQ	Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GS	Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GT	Extract Col. Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GU	Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GV	Ingred. Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GW	Ingred. Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4GX	Ingred. Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4KA	Ingred. Tank Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4KB	Container Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4KC	Container Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4KD	Container Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7XIE	T4XK	New Column Maintenance	None	VOC	R13-1823H	No	Yes	No	
T7AAE	T7AA	Brine System Tank	None	TAP-M	R13-1823H	No	No	Yes	40 CFR 63.2346 (OLD MACT)

Note #1 - Formaldehyde (TAP-F) does not qualify as a MACT Wastewater under any Standard.

Note #2 - MON MACT has a process vent definition cut-off at 50 ppm. Below this there are no controls since it is not considered to be a process vent.

Note #3 - The WWTP located at Washington Works does not receive any Group 1 Streams as defined by the rule. Hence the applicability of 45 CFR 63.135 and 45 CSR 63.145 are very, very limited.

Note #4 - Sources identified as being "Removed from Service" are considered permanently removed and must undergo 45CSR13 review prior to being returned to service.