

*West Virginia Department of Environmental Protection
Division of Air Quality*

Joe Manchin III
Governor

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
Fluoropolymer Production (Part 2 of 14)
R30-10700001-2003

John A. Benedict
Director

Issued: May 12, 2004 • Effective: May 26, 2004
Expiration: May 12, 2009 • Renewal: November 12, 2008

Permit Number: **R30-10700001-2003**
Permittee: **E. I. du Pont de Nemours and Company**
Facility Name: **Washington Works**
Business Unit: **Fluoropolymer Production (Part 2 of 14)**
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
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, 2869
UTM Coordinates: 442.368 km Easting • 4,346.679 km Northing • Zone 17

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: R13-2365 Attachments (C1-P Area)
- APPENDIX B: R13-0822 Attachments (C1-T Area)
- APPENDIX C: R13-1953 Attachments (C2 Area)
- APPENDIX D: R13-2391 Attachments (C3 Area)
- APPENDIX E: R13-1823 Attachments (T1, T2, T3, T4, and T7 Areas)
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- APPENDIX H: R13-2617 Attachment A for Fluoropolymer Production Unit

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

1.1 Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
<i>C1-P Area</i>			
C1CHE	C1CHC - Scrubber	C1CG	Supply System
		C1CH	Reactor
C1FEE	None	C1FA	Bin
		C1FB	Bin
		C1FD	Supply System
	C1FEC - Scrubber	C1FE	Reactor
	C1GNC1 - Baghouse C1GNC2 - Filter	C1GN	Conveying System
C1FCE	None	C1FC	Bin
C1FFE	None	C1FF	Bin
C1FGE	None	C1FG	Bin
C1FQE	None	C1FQ	Reactor
T7IME	T7IMC - Thermal Converter		
C1FRE	None	C1FR	Ingredient System
C1FSE	C1FSC1 - Baghouse C1FSC2 - Scrubber C1FSC3 - Scrubber	C1FS	Dryer
	C1FKC - Bag Filter C1FSC3 - Scrubber	C1FK	Conveying System
C1FUE	None	C1FU	Bin
C1FVE1	None	C1FV	Extruder
C1FVE2	None		
C1FWE	None	C1FW	Ingredient System
Area	None		
C1GAE	None	C1GA	Bin
C1GBE	None	C1GB	Bin
C1GCE	None	C1GC	Bin
C1GDE	None	C1GD	Tank

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
C1FQE	None	C1GH	Ingredient System
T7IME	T7IMC - Thermal Converter		
C1GJE	C1GJC - Bag Filter	C1GJ	Conveying System
Area	None	C1GK	Sump
C1GQE	C1GQC - Bag Filter	C1GQ	Conveying System
C1GRE	None	C1GR	Cleaning Station
C1GPE	C1GPC - Baghouse	C1GP	Conveying System
		C1GS	Blender
		C1GT	Blender
C1GVE	None	C1GV	Hopper
C1GXE	None	C1GX	Ingredient System
Area	None	C1GY	Dryer
C1FQE	None		
C1FWE	None		
C1GXE	None		
C1GYE	None		
<i>C1-T Area</i>			
C1JSE	None	C1JS	Bin
C1JTE	None	C1JT	Extruder
C1JWE	C1JWC - Baghouse	C1JW	Conveying System
C1JXE	C1JXC - Filter	C1JX	Conveying System
C1JYE	C1JYC - Baghouse	C1JY	Elutriator
		C1NA	Blender
C1JZE	None	C1JZ	Bin
C1NBE	C1NBC - Baghouse	C1NB	Conveying System

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
C1NEE	C1JEC1 - Condenser C1JEC2 - Condenser	C1NE	Material Balance Area {Includes: C1AA (Dryer), C1AQ (Tank), C1AB (Reactor), C1AR (Cylinder), C1AC (Reactor), C1FM (Tank), C1AD (Reactor), C1FO (Refining), C1AE (Decanter), C1JB (Tank), C1AF (Reactor), C1JE (Tank), C1AG (Decanter), C1JG (Reactor), C1AH (Dryer), C1JH (Tank), C1AI (Tank) C1JI (Separator), C1AJ (Drum), C1JK (Refining), C1AK (Tank), C1JL (Tank), C1AL (Tank), C1JU (Tube), C1AM (Tank), C1JQ (Tank), C1AN (Tank), C1JR (Cylinder), C1AO (Tank), C1NN (Tank), C1AP (Tank), C1NO (Tank)}
C1NFE	C1NFC - Cyclone	C1NF	Dryer
C1NIE	C1NIC - Baghouse	C1NI	Conveying System
C1NJE	C1NJC - Baghouse	C1NJ	Conveying System
C1NKE	None	C1NK	Bin
C1NLE	None	C1NL	Bin
C1NME	None	C1NM	Bin
C1NPE	None	C1NP	Recovery System
C2 Area			
C2DAE	None	C2DA	Tank
		C2EC	Tank
		C2DE	Tank
		C2KW	Feed Tank
		C2KX	Storage Tank
C2DBE	C2DBC - Scrubber	C2DI	Oven
		C2KL	Hopper
C2EJE	None	C2DG	Reactor
		C2EJ	Supply System
C2DHE	None	C2DH	Bin
C2DJE	C2DJC - Bag Filter	C2DJ	Process Tank
C2DKE	C2DKC - Bag Filter	C2DK	Process Tank

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
C2DME	C2DMC - Cyclone	C2DM	Process Equipment
C2EUE	C2EUC - Bag Filter	C2DO	Elutriator
		C2EU	Elutriator
C2DSE	C2DSC - Bag Filter	C2DS	Conveying System
C2DTE	C2DWC1 - Bag Filter C2DWC2 - Scrubber C2DTC3 - Scrubber	C2DW	Dryer
	C2EHC1 - Bag Filter C2EHC2 - Scrubber C2DTC3 - Scrubber	C2EH	Dryer
C2EBE1, C2EBE2	None	C2EB	Hood
Area	None	C2EE	Supply System
C2EFE	None	C2EF	Reactor
		C2EJ	Supply System
C2EGE	C2EGC - Bag Filter	C2EG	Process Equipment
C2ENE	C2ENC - Bag Filter	C2EN	Conveying System
C2EQE	C2EQC - Liquid Ring Vacuum Pump	C2EQ	Oven
C2ERE	None	C2ER	Extruder
T71ME	T71MC - Thermal Converter	C2ES	Extruder
C2ETE	None	C2ET	Bin
C2EVE	None	C2EV	Packout
C2EZE	None	C2EZ	Loading Station
C2KAE	None	C2KJ	Dryer
C2KDE	None	C2KD	Dryer
C2KIE	None	C2KI	Tower
C2KNE	C2KMC4 - Bag Filter	C2KN	Process Equipment
C2KME2	C2KMC3 - Bag Filter		

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
C2KOE1	C2KOC1 - Bag Filter	C2KO	Process Equipment
C2KOE2	C2KOC2 - Bag Filter		
C2KPE	C2KPC - Bag Filter	C2KP	Process Equipment
Area	None	C2KQ	Sump
Area	None	C2KT	System
C2KUE	None	C2KU	Ingredient System
Area	None	C2KY	Ion Exchange Column
Area	None	C2KZ	Ion Exchange Column

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	
<i>C3 Area</i>				
C3HPE	None	C3HA	Tank	
	None	C3HB	Tank	
	None	C3HD	Tank	
	None	C3HN	Tank	
	None	C3HO	Reactor	
	None	C3HS	Tank	
	None	C3IT	Tank	
	None	C3IZ	Tank	
	C3HPC - Scrubber		C3HP	Cylinder
			C3HQ	Still Pot
			C3HK	Tank
			C3HL	Cylinder
			C3HM	Tank
			C3IF	Tank
			C3IV	Charge Pot
	None		C3ID	Tank
			C3IE	Tank
			C3IX	Tank
			C3IY	Tank
	None		C3HX	Tank

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
C3HIE	None	C3HI	Reactor
	None	C3HJ	Still Pot
	None	C3HT	Tank
	None	C3IH	Tank
	None	C3IJ	Tank
	None	C3IK	Tank
	None	C3IL	Tank
	C3HGC - Scrubber	C3HH	Tank
C3HGE	C3HGC - Scrubber	C3HG	Tank
C3HG2E	None		
C3IQE	None	C3IQ	Filter
C3IPE	None	C3IP	Filter
		C3JA	Filter
Area	None	C3IW	Pit

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
<i>T1, T2, T3, T4, and T7 Areas</i>			
T7XIE	T7XIC - Scrubber	T1BB	Compressor & Intercooler
T7XIE	T7XIC - Scrubber	T1BC	Compressor & Intercooler
T7XIE	T7XIC - Scrubber	T1BD	Compressor & Intercooler
T7XIE	T7XIC - Scrubber	T1BE-J	Coolers
T7XIE	T7XIC - Scrubber	T1BI-J	Coolers
T7XIE	T7XIC - Scrubber	T1BK-M	Bag Filters
T7XIE	T7XIC - Scrubber	T1BN	Bag Filter
T7XIE	T7XIC - Scrubber	T1BP-T	Storage Tanks
T7XIE	T7XIC - Scrubber	T1BT	Storage Tank
T7IME	T7IMC - Thermal Converter	T1BW T1BX T1XC	Absorber
T1CAE	None	T1CA	Furnace
T7XIE	None		
T1CBE	None	T1CB	Furnace
T7XIE	None		
T1CCE	None	T1CC	Furnace
T7XIE	None		
T1CDE	None	T1CD	Furnace
T7XIE	None		
T7XIE	T7XIC - Scrubber	T1CK T1LA T1CL	Aftercoolers
T7XIE	None	T1CU	Tank
T7IME	T7IMC - Thermal Converter	T1CV	Dryer
T7XIE	T7XIC - Scrubber	T1CW	Tank
T1DBE	None	T1DB T1DC	Dryers
T7XIE	None		
T7XIE	None	T1DD-F	Coolers

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T7IME	T7IMC - Thermal Converter		
T7IME	T7IMC - Thermal Converter	T1DG T1DH	Bag Filters
T7XIE	T7XIC - Scrubber		
T7XIE	None	T1DI	Vaporizer
T7IME	T7IMC - Thermal Converter		
T7XIE	T7XIC - Scrubber	T1DS	Snubber Tank & Compressor Inlet Piping
T7XIE	T7XIC - Scrubber	T1DT	Spare Intercooler
T7IME	T7IMC - Thermal Converter	T1DU	Compress Area Common Hi-Press Piping
T7XIE	TXIC - Scrubber		
T7XIE	None	T1EE	Analyzer Vents
T7XIE	None	T1EV	Shipping Trailers
T1GNE	None	T1GN	Mixed Gas Holder
T1JBE	None	T1JB	Raw Material Unloading
T7XIE	None	T1LB-E	Raw Material Storage
T2ERE	T2ERC - Scrubber	T1LF	Storage Tank & Vaporizer
T7XIE	T7XIC - Scrubber		
T1LHE	None	T1LH	Feed Pump
T1LIE	None	T1LI	Feed Pump
T1XAE	None	T1XA	Compressor
T7IME	T7IMC - Thermal Converter		
T7XIE	T7XIC - Scrubber		
T7XIE	T7XIC - Scrubber	T1XB	Bag Filter
T7IME	T7IMC - Thermal Converter	T1XD	Column
T7XIE	T7XIC - Scrubber		
T7XIE	None	T1XG	Column
T7IME	T7IMC - Thermal Converter		
T7IME	T7IMC - Thermal Converter	T1XO	Column - Feed Condenser
T7XIE	T7XIC - Scrubber		
T2ERE	T2ERC - Scrubber	T2EN	Tank Car Loading

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T2ERE	T2ERC - Scrubber	T2EO T2EP	Tanks
T2ERE	T2ERC - Scrubber	T2ER	Storage Tanks
T2ERE	T2ERC - Scrubber	T2ES	Air Stripper
T2EXE	None	T2EX	Trailer Loading
T7IME	T7IMC - Thermal Converter		
T2EYE	None	T2EY	Analyzer
T2ERE	T2ERC - Scrubber	T2XH T2XL	Cooler/Absorber
T7IME	T7IMC - Thermal Converter		
T7XIE	None	T2XJ	Column
T7IME	T7IMC - Thermal Converter		
T7XIE	None, T7XIC - Scrubber	T2XM	Column
T7IME	T7IMC - Thermal Converter		
T7XIE	None	T2XN	Column
T7IME	T7IMC - Thermal Converter		
T7XIE	T7XIC - Scrubber	T2XQ	Vaporizer
T7XIE	None	T2XS	Column Feed Cooler

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T2ERE	T2ERC - Scrubber	T2XT T2XU	Absorption Beds
T7XIE	None	T2XV	Cooler Loop
T7XIE	None	T3FB	Furnace
T4GBE	None	T4GB	Storage Tank
T7XIE	None	T4GK	Shipping Containers
T7XIE	None	T4GM	Column
T7IME	T7IMC - Thermal Converter		
T7XIE	None	T4GO	Recycle Tank
T7IME	T7IMC - Thermal Converter		
T7XIE	None	T4GP	Feed Tank
T7XIE	None	T4GQ	Recycle Tank
T7XIE	None	T4GS	Column
T7XIE	None	T4GT	Column
T7XIE	None	T4GU T4GV	Storage Tanks
T7XIE	None	T4GW	Tank
T7XIE	None	T4GX	Tank
T7XIE	None	T4KA	Cylinder Loading
T7XIE	None	T4KB	Feed Tank
T7XIE	None	T4KC	Truck Loading
T7XIE	None	T4KD	Tank Car Loading
T7XIE	None	T4XK	Column
T7IME	T7IMC - Thermal Converter		
T7ABE	None	T7AB	Methylene Chloride System Losses
T7AKE	None	T7AK	Cooling Tower
T7XIE	T7XIC - Scrubber	T7EI T7XI	N & S Stillhouse Vacuum Systems (Misc. Vents)
T7EME	None	T7EM	Portable Container Facility
T7IME	T7IMC - Thermal Converter		
T7IOE	T7IOC - Baghouse	T7IO	Silo
T7IME	T7IMC - Thermal Converter	T7IY	Tank

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T7JCE	T7JCC - Scrubber	T7JC	Neutralization Tank
T7JCE	T7JCC - Scrubber	T7JD	Neutralization Tank
T7JJE	None	T7JJ	Emergency Generator
T7JKE	None	T7JK	Trailer Loading
T5 Area			
T5HAE	None	T5HA	Heater
T5HBE	None	T5HB	Heater
Area	None	T5HC	Reactor
T5HCE	None		
T5HCE2	None		
Area	None	T5HD	Reactor
T5HDE	None		
T5HDE2	None		
T5HFE	None	T5HF	Mix Station Fume Hood
T5HGE	T5HGC - Cyclone	T5HG	Dryer
T5HIE	T5HIC - Cyclone	T5HI	Dryer
T5HKE	T5HKC - Condenser	T5HK	Tank
T5HKE	T5HKC - Condenser	T5HL	Tank
T5HLE	Vacuum Pump		
T7XIE	None	T5HM	Raw Material System
T7XIE	None	T5HN	Raw Material System
T5HNE	None	T5HN	Raw Material System
Area	None	T5HO	Tank
T7XIE	None	T5HP	Tank
T5HQE	None	T5HQ	Oven
T5HRE	None	T5HR	Oven
T5HTE	None	T5HT	Tank
T5HUE	None	T5HU	Tank
T5HVE	None	T5HV	Tank
T5HCE	None	T5HW	Tank
T7XIE	None		

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T5HWE	None	T5HW	Tank
T5HDE	None	T5HX	Tank
T7XIE	None		
T5HXE	None	T5HX	Tank
T5HYE	None	T5HY	Tank
T5HZE	None	T5HZ	Tank
<i>T6 Area</i>			
T6IIE	None	T6II	#1 Weigh Tank
T6IBE	None		
T6IJE	None	T6IJ	#2 Weigh Tank
T6ICE	None		
T6IKE	None	T6IK	#3 Weigh Tank
T6IDE	None		
T6ILE	None	T6IL	#4 Weigh Tank
T6IUE	None		
T6IBE	None	T6IB	Reactor 6
T6ICE	None	T6IC	Reactor 7
T6IDE	None	T6ID	Reactor 8
T7IME	T7IMC - Thermal Converter		
T6IUE	None	T6IU	Reactor 9
T7IME	T7IMC - Thermal Converter		
T7PAE	None	T6PA	Head Tank
Area, T6IBE, T6ICE, T6IDE, T6IUE	None	T6PB	Feed System
T6PCE	None	T6PC	Decanter 6
T6PDE	None	T6PD	Decanter 7
T6PEE	None	T6PE	Decanter 8
T6PFE	None	T6PF	Decanter #9
T6PGE	None	T6PG	Stabilization Tank #3
		T6PH	Stabilization Tank #4
T6IXE	None	T6IX	#1 Chiller Cooler Vent

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T6IYE	None	T6IY	#3 Chiller Cooler Vent
T6IZE	None	T6IZ	Accumulator Vessel
T6IVE	None	T6IV	Dryer 1
T6IEE	None	T6IE	Dryer 2
T6IFE	None	T6IF	Dryer 3
T6PME	None	T6IW	#1 Float Tank
T6IZCE	T6IFC - Packed Bed Scrubber T6IZC - Deep Bed Filter	T6IV	Dryer 1
		T6IE	Dryer 2
		T6IF	Dryer 3
T6IGE	None	T6IG	#2 Float Tank
		T6IH	#3 Float Tank
T6JEE	None	T6JE	Ingredient Tank
T6JFE	None	T6JF	Ingredient Tank
Area, T6IBE, T6ICE, T6IDE, T6IUE	None	T6PI	Feed System
Area, T6IBE, T6ICE, T6IDE, T6IUE	None	T6PJ	Raw Material Feed System
T6PGE	None	T6PK	Stabilization Tank
		T6PL	Process Tank
T6PME	None	T6PM	Process Tank
T6PNE	None	T6PN	Process Tank
T6POE	None	T6PO	Storage Tank
T6PPE	None	T6PP	Storage Tank
T6PQE	None	T6PQ	Formulation Tank
T6PRE	None	T6PR	Fresh Tank

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T6PSE	None	T6PS	Melt Tank
Area	None	T6PT	Decanter
T6PUE	None	T6PU	Process Tank
T6PVE	None	T6PV	Process Tank
T6PWE	None	T6PW	Storage Tank
T6PXE	None	T6PX	Process Tank
T6PYE	None	T6PY	Storage Tank
T6PZE	None	T6PZ	Process Tank
T6QAE	None	T6QA	Ion Exchange Column
T6QBE	None	T6QB	Ion Exchange Column
T6QCE	None	T6QC	Slurry Mix Tank
T6QDE	None	T6QD	Ion Exchange Bed
T6QEE	None	T6QE	Ion Exchange Column
T6QFE	None	T6QF	Ion Exchange Column
T6PGE	None	T6QG	Feed Tank
T6PGE	None	T6QH	Feed Tank
Area	None	T6QI	Knockout Pot
T6IBE	None	T6QJ	#6 Tank
T6ICE	None	T6QK	#7 Tank
T6IDE	None	T6QL	#8 Tank
T6IUE	None	T6QM	#9 Tank
T6QNE	None	T6QN	Blend Tank #1
T6QOE	None	T6QO	Blend Tank #2
T6QPE	None	T6QP	Blend Tank #3
T6QQE	None	T6QQ	Blend Tank #4
T6QRE	None	T6QR	Blend Tank #5
T6QSE	None	T6QS	Blend Tank #6
T6QTE	None	T6QT	Blend Tank #7
T6QUE	None	T6QU	Ingredient Tote #1
T6QVE	None	T6QV	Ingredient Tote #2
T6QWE	None	T6QW	Recovered Ingredient Feed Tank #1

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T6QYE	None	T6QY	Recovered Ingredient Feed Tank #2
T6QZE	None	T6QZ	Recovered Ingredient Storage Tank
T6RAE	None	T6RA	Filters
T6RBE	None	T6RB	Reactor Waste Solids Drum
T6RCE	None	T6RC	Coagulator #1
T6RDE	None	T6RD	Coagulator #2
T6REE	None	T6RE	Coagulator #2
T6RFE	None	T6RF	Conveyor #1
T6RGE	None	T6RG	Conveyor #2
T6RHE	None	T6RH	Conveyor #3
T6RIE	None	T6RI	FP Packout
T6RJE	None	T6RJ	Packout Tank #1
T6RKE	None	T6RK	Packout Tank #2
T6RLE	None	T6RL	Ingredient Tank #1
T6RME	None	T6RM	Ingredient Tank #2
T6RNE	None	T6RN	Ingredient Tank #3
T6ROE	None	T6RO	Ingredient Tank #4
T6RPE	None	T6RP	Ingredient Tank #5
T6RQE	None	T6RQ	Ingredient Tank #6
T6RRE	None	T6RR	Ingredient Tank #7
T6RSE	None	T6RS	Ingredient Tank #8
T6RTE	None	T6RT	Ingredient Tank #9
T6RUE	None	T6RU	Ingredient Tank #10
T6RVE	None	T6RV	Ingredient Tank #11
T6RWE	None	T6RW	Ingredient Tank #12
T6RXE	None	T6RX	Ingredient Tank #13
T6RYE	None	T6RY	Ingredient Tank #14
T6RZE	None	T6RZ	Ingredient Tank #15
T6SAE	None	T6SA	Ingredient Tank #16
T6SBE	None	T6SB	WIT Tank
T6SCE	None	T6SC	Cylinder

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description
T6SDE	None	T6SD	Reactor Knockout
T6SEE	None	T6SE	Ingredient Truck Unloading Area
T6SFE	None	T6SF	Processing Tank
<i>Mineral Spirits Parts Washers</i>			
C1LDE	None	C1LD	Parts Washer
T1JGE	None	T1JG	Parts Washer

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.

Permit Number	Date of Issuance
R13-2365D	December 16, 2004
R13-0822A	October 31, 2003
R13-1953G	June 28, 2007
R13-2391E-F	August 27, 2007 June 9, 2008
R13-1823H	April 1, 2008
R13-1353C	August 22, 2005
R13-0815F	January 4, 2006
R13-2617C	July 13, 2007

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.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NAAQS	National Ambient Air Quality Standards
CBI	Confidential Business Information	NESHAPS	National Emissions Standards for Hazardous Air Pollutants
CEM	Continuous Emission Monitor	NO_x	Nitrogen Oxides
CES	Certified Emission Statement	NSPS	New Source Performance Standards
C.F.R. or CFR	Code of Federal Regulations	PM	Particulate Matter
CO	Carbon Monoxide	PM₁₀	Particulate Matter less than 10µm in diameter
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	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MM	Million	USEPA	United States Environmental Protection Agency
MMBtu/hr or	Million British Thermal Units per	UTM	Universal Transverse Mercator
mmbtu/hr	Hour	VEE	Visual Emissions Evaluation
MMCF/hr or	Million Cubic Feet Burned per	VOC	Volatile Organic Compounds
mmcf/hr	Hour		
NA	Not Applicable		

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.]

2.12. 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, firm, corporation, association or public agency 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, suffer, allow or permit 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 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). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.
[40 C.F.R. 61]
- 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.]
- 3.1.5. **Reserved.**
- 3.1.6. **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]
- 3.1.7. **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)]
- 3.1.8. **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]

- 3.1.9. **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. § 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]
- 3.1.10. **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, R13-1953, 4.1.18]
- 3.1.11. **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, R13-1953, 4.1.19]
- 3.1.12. **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)]**
- 3.1.13. **MON Applicability.** C1-P, C1-T, C2, C3, T1, T2, T3, T4, T5, T6, and T7 Areas in the Fluoropolymer Production Unit shall comply with all applicable requirements of 40 C.F.R. 63, Subpart FFFF - “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing” no later than May 10, 2008, unless the permittee is granted an extension pursuant to the provisions of Subpart FFFF, or the compliance date is changed by USEPA.
[45CSR34 and 40 C.F.R. §63.2445; 45CSR13, R13-1953, 4.1.22]
- 3.1.14. **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; 6.1.5 for C2DTE; 8.1.3. for T7IME; 9.1.5 for T5HGE and 9.1.6 for T5HIE; 10.1.5 for T6IXE, T6IYE, T6IZCE, T6PME, T6IGE, T6IVE, T6IEE, T6IFE; and R30-10700001-2003 Research and Development (Part 11 of 14) and R13-2692 for the semi-works application.

Business Unit	Process Area	Emission Point ID No.
Fluoropolymers (2 of 14)	C1-P	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, R13-1353, R13-1823, and R13-0815; and R30-10700001-2003 Research and Development (Part 11 of 14) and R13-2692]

- 3.1.15. **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 $1 \mu\text{g}/\text{m}^3$ 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 $1 \mu\text{g}/\text{m}^3$ 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:

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	4,346,744	441,787
C2DTE	0.785	100	1200-3000	31-131	4,346,758	441,941
T5HGE	3.02	70	9,800	200	4,346,767	441,920

Emission Point	Discharge Area (ft ²)	Height Above Grade (ft)	Volume Flow Rate (ACFM)	Temp (°F)	UTM Coordinates	
					Northing (m)	Easting (m)
T5HIE	2.09	68	2,800	300	4,346,756	441,923
T6IXE	3.98	45	2,000	140	4,346,829	442,128
T6IYE	2.19	45	344	140	4,346,815	442,101
T6IZCE	12.57	170	12,000	124	4,346,843	442,098
T7IME	1.39	150	1,788	86	4,346,847	442,025
T6PME	0.72	44.5	1,100	Ambient	4,346,824	442,127
T6IGE	3.02	43	9,465	Ambient	4,346,814	442,101
T6IVE	3.56	45	12,622	250	4,346,810	442,131
T6IEE	2.09	70	11,931	248	4,346,816	442,112
T6IFE	2.09	70	8,779	198	4,346,805	442,103

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, R13-1353, A.7 and A.8; and 45CSR13, R13-0815, A.6 and A.7; 45CSR13, R13-1823, 4.1.18. and 4.1.20.]

- 3.1.16. 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, R13-1953, 4.1.17; 45CSR13, R13-2391, B.8; 45CSR13, R13-1823, 4.3.1.; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1 and 45CSR13, R13-1353, B.2]**
- 3.1.17. 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, R13-0822, B.9; 45CSR13, R13-1953, 4.1.20]**
- 3.1.18. 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 H of this Permit).

For the Fluoropolymer Production Area, the affected permits are R13-0822, R13-1353, R13-1815, R13-1823, R13-1953, R13-2365 and R13-2391, the Attachment A listing for those sources in the Fluoropolymer Production Area only is provided in APPENDIX H.

[45CSR13, R13-2617, 4.1.1.; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]

- 3.1.19. The permitted sources identified in APPENDIX H 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 H, 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; R13-0822, B.7.; R13-1353, B.7.; R13-1815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.19.1. 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 H. **[45CSR13, R13-2617, 4.1.2.1; 45CSR§21-40.3.a.1; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.19.2. 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.; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 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; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 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 3.1.19.1. **[45CSR13, R13-2617, 4.1.2.2.b; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.19.3. 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 3.1.19.2. **[45CSR13, R13-2617, 4.1.2.3; 45CSR§21-40.3.c; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.19.4. 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; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**

- 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; R13-0822, B.7.; R13-1353, B.7.; R13-1815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
 - 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; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
 - 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 3.1.19.1 of this permit. **[45CSR13, R13-2617, 4.1.2.4.c; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.19.5. 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 3.1.19.1 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 3.1.19.1. **[45CSR13, R13-2617, 4.1.2.5; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.19.6. In the event a source and associated emission point identified in APPENDIX H 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; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]**
- 3.1.20. The permitted sources identified in APPENDIX H 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 H 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.]**
- 3.1.20.1. 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 H. **[45CSR13, R13-2617, 4.1.3.1; 45CSR§27-3.1.]**
 - 3.1.20.2. 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 H as operating in TAP service. **[45CSR13, R13-2617, 4.1.3.2; 45CSR§27-4.1.]**

3.1.21. In the event a source and associated emission point identified in APPENDIX H 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 3.1.20.

[45CSR13, R13-2617, 4.1.4; 45CSR§27-3.1.]

3.1.22. **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 H 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]

3.2. Monitoring Requirements

3.2.1. **APFO Modeling.** As a threshold test for demonstrating compliance with the screening level described in 3.1.15, the actual annualized APFO emissions from the APFO sources in R13-2365, R13-1953, R13-1353, and R13-0815 shall be no greater than the permitted APFO emission limits set forth by 4.1.1, 6.1.5, 8.1.3, 9.1.5, 9.1.6, and 10.1.5.

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 3.1.15 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 3.1.15 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, 4.1.19.; 45CSR13, R13-1353, B.9; and 45CSR13, R13-0815, B.5]

3.2.2. 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 H 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.

[45CSR13, R13-2617, 4.2.1; 45CSR§21-40.3.a.2; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]

- 3.2.3. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in APPENDIX H 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.”

[45CSR13, R13-2617, 4.2.2; 45CSR§27-4.1.]

- 3.2.4. In the event a source and associated emission point identified in APPENDIX H 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.

[45CSR13, R13-2617, 4.2.3; 45CSR§21-37.1.c; 45CSR§27-4.1; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]

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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with 45CSR§30-6.4. or 45CSR§30-6.5 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with 45CSR§30-6.4. or 45CSR§30-6.5 as applicable.

- 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); 45CSR7; 45CSR13, R13-2365, B.10; and 45CSR13, R13-0822, B.9;]

- 3.3.2. 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; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]

- 3.3.3. In the event a source and associated emission point identified in APPENDIX H 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.

[45CSR13, R13-2617, 4.3.2; 45CSR§21-37.1.c; 45CSR§27-4.1; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]

3.4. Record keeping 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, R13-1953, 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. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions 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 3.1.10. 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 3.1.11. 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.; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1823, 4.4.3.; R13-1953, 4.4.3.; R13-2365, B.8. and R13-2391, B.6.]**

- 3.4.7. 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 H 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.
[45CSR13, R13-2617, 4.4.4.; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]
- 3.4.8. 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 H.
[45CSR13, R13-2617, 4.4.5.]
- 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.]**
- 3.4.10. 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. 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, or mailed first class 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
[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 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 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.]

- c. Every report submitted under this subsection shall be certified by a responsible official.

[45CSR§30.5.1.c.3.D.]

- 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. **Suspension of Operations.** In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by a permit issued under 45CSR13, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

[45CSR13, R13-2365, C.5; 45CSR13, R13-0822, C.5; 45CSR13, R13-1953, 2.14; 45CSR13, R13-2391, C.5; 45CSR13, R13-1823, 2.14.; 45CSR13, R13-1353, C.5; and 45CSR13, R13-0815, C.5]

- 3.5.11. 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 H 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.

[45CSR13, R13-2617, 4.5.1; 45CSR§40.4.c.1; R13-0822, B.7.; R13-1353, B.7.; R13-0815, B.2.; R13-1953, 4.1.21; R13-2365, B.8. and R13-2391, B.6.]

3.6. Compliance Plan

3.6.1. NA

3.7. 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 C1-P 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 A.1.

Table A.1. of R13-2365 - Emission Limits

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
C1FQE	C1GH (ingredient feed system) C1GY (dryer) C1FQ (reactor)	N/A	VOC ODC	38.6 1.0	21.30 0.05
C1FWE	C1FW (ingredient feed system) C1GY (dryer)	N/A	VOC	59.4	0.66
C1GXE	C1GX (ingredient system charge pot) C1GY (dryer)	N/A	VOC	3.8	0.31
C1GYE	C1GY (dryer) {both stack and area emissions}	N/A	VOC	29.1	0.46
C1GDE	C1GD (tank)	N/A	VOC ODC	1.9 0.1	2.30 0.01
C1GK {area missions}	C1GK (sump)	N/A	VOC ODC	1.9 0.1	0.19 0.01
C1FVE1	C1FV (extruder)	N/A	VOC PM ₁₀ ² HF	0.4 0.1 0.01	0.14 0.15 0.001
C1FVE2	C1FV (extruder)	N/A	VOC HF	0.5 1.63	0.08 0.111
C1FSE	C1FS (dryer)	C1FSC1 (baghouse) C1FSC2 (scrubber) C1FSC3 (scrubber)	PM ₁₀ APFO ¹	0.228 0.220	0.557 0.543
	C1FK (conveying system)	C1FKC (baghouse) C1FSC3 (scrubber)			
C1FUE	C1FU (bin)	N/A	PM ₁₀	0.2	0.22

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
C1FCE	C1FC (bin)	N/A	PM VOC	0.1 0.1	0.30 0.15
C1GAE	C1GA (bin)	N/A	PM VOC	0.1 0.1	
C1GBE	C1GB (bin)	N/A	PM VOC	0.1 0.1	
C1GCE	C1GC (bin)	N/A	PM VOC	0.1 0.1	
C1GJE	C1GJ (conveying system)	C1GJC (baghouse)	PM ₁₀	0.9	0.11
C1GQE	C1GQ (conveying system)	C1GQC (baghouse)	PM ₁₀	0.1	0.13
C1GVE	C1GV (hopper)	N/A	PM ₁₀	0.2	0.22
C1GPE	C1GS (blender #1) C1GT (blender #2) C1GP (conveying system)	C1GPC (baghouse)	PM	0.1	0.18
C1FFE	C1FF (bin)	N/A	PM VOC	0.1 0.2	0.30 0.15
C1FGE	C1FG (bin)	N/A	PM VOC	0.1 0.2	
C1FEE	C1FD (supply cylinder)	N/A	PM ₁₀ ² HF	0.3 0.42	0.23 0.208
	C1FE (reactor)	C1FEC (scrubber)			
	C1GN (cube conveyor: C1GN to C1FA & C1FB)	C1GNC1 (baghouse) C1GNC2 (baghouse)			
	C1FA (bin) C1FB (bin)	N/A			
C1GRE	C1GR (burnout station)	N/A	VOC HF	0.1 0.55	0.01 1.116
C1CHE	C1CG (cylinder) C1CH (reactor)	C1CHC (scrubber)	PM ₁₀ ² HF	0.1 0.17	0.02 0.113

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 units C1FS, C1FK, C1FU, C1GJ, C1GQ, C1GV, C1FV, C1FC, C1GA, C1GB, C1GC, C1GS, C1GT, C1GP, C1FF, C1FG, C1FE, C1CH, C1CA, C1CB, C1CC, and C1CD venting through emission points C1FSE, C1FUE, C1GJE, C1GQE, C1GVE, C1FVE1, C1FCE, C1GAE, C1GBE, C1GCE, C1GPE, C1FFE, C1FGE, C1FEE, C1CHE, and C1CAE.

[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 at any given time during 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. (*C1FSE, C1FUE, C1GJE, C1GQE, C1GVE, C1FVE1, C1FCE, C1GAE, C1GBE, C1GCE, C1GPE, C1FFE, C1FGE, C1FEE, C1CHE, and C1CAE*)

[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. (*C1FSE, C1FUE, C1GJE, C1GQE, C1GVE, C1FVE1, C1FCE, C1GAE, C1GBE, C1GCE, C1GPE, C1FFE, C1FGE, C1FEE, C1CHE, and C1CAE*)

[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 45CSR§§7-3.1 and 3.2 (4.1.6 and 4.1.7 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, 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 R13-2365D and 4.1 of 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. (C1FSE, C1FUE, C1GJE, C1GQE, C1GVE, C1FVE1, C1FCE, C1GAE, C1GBE, C1GCE, C1GPE, C1FFE, C1FGE, C1FEE, C1CHE, and C1CAE) [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. The interlocks will insure emissions limits are not exceeded because the source equipment will not operate once the interlock set point has been reached.

Table B.3.(a) of R13-2365 - 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.

Control Device ID	Description	Compliance Monitoring & Interlock Settings
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, 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.

The following tables summarize the interlock setting listed above as well as the parametric monitoring ranges and measuring frequency required:

Table B.3.(b) of R13-2365 - Parametric Monitoring of Control Equipment

	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.
C1FSC1	Dryer Baghouse	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.

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.

This test shall be performed at the maximum permitted 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]

4.4. Record keeping 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. (*C1FSE, C1FUE, C1GJE, C1GQE, C1GVE, C1FVE1, C1FCE, C1GAE, C1GBE, C1GCE, C1GPE, C1FFE, C1FGE, C1FEE, C1CHE, and C1CAE*)
[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 C-1 Area in accordance with proper operational guidelines to minimize emissions. For all baghouses, scrubbers, and any other air emissions control devices installed in the C-1 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.

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; 45CSR§30-5.1.c.]

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 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. This equipment is exempt from the reporting requirement set forth in 3.5.10. 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]

5.0 C1-T Area

5.1. Limitations and Standards

5.1.1. Emissions to the atmosphere of regulated air pollutants shall not exceed the following limits:

Emission Point ID	Source Description	Control Device	Pollutant	Emission Limits		
				pph	tpy	
C1NEE	C1AA (Dryer)	C1AQ (Tank)	C1JEC1 (Condenser) C1JEC2 (Condenser)	VOC ODC	22683* 27849*	74.9 52.9
	C1AB (Reactor)	C1AR (Cylinder)				
	C1AC (Reactor)	C1FM (Tank)				
	C1AD (Reactor)	C1FO (Refining)				
	C1AE (Decanter)	C1JB (Tank)				
	C1AF (Reactor)	C1JE (Tank)				
	C1AG (Decanter)	C1JG (Reactor)				
	C1AH (Dryer)	C1JH (Tank)				
	C1AI (Tank)	C1JI (Separator)				
	C1AJ (Drum)	C1JK (Refining)				
	C1AK (Tank)	C1JL (Tank)				
	C1AL (Tank)	C1JU (Tube)				
	C1AM (Tank)	C1JQ (Tank)				
	C1AN (Tank)	C1JR (Cylinder)				
	C1AO (Tank)	C1NN (Tank)				
	C1AP (Tank)	C1NO (Tank)				
C1JSE	C1JS (Bin)	N/A	PM ₁₀ VOC ODC	1.29 0.02 17.86	0.24 0.01 3.3	
C1NBE	C1NB (Conveying)	C1NBC (Baghouse)	PM ₁₀	0.26	0.29	
C1JWE	C1JW (Conveying)	C1JWC (Baghouse)	PM ₁₀	0.29	0.04	

Emission Point ID	Source Description	Control Device	Pollutant	Emission Limits	
				pph	tpy
C1JTE	C1JT (Extruder)	N/A	VOC HF	0.21 0.06	0.74 0.21
C1JZE	C1JZ (Bin)	N/A	PM ₁₀ VOC HF	0.01 1.56 0.45	0.01 1.46 0.21
C1NKE	C1NK (Bin)				
C1NLE	C1NL (Bin)				
C1NME	C1NM (Bin)				

*Emission limit is in pounds per month.

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission units C1JS, C1NB, C1JW, C1JZ, C1NK, C1NL, and C1NM venting through emission points C1JSE, C1NBE, C1JWE, C1JZE, C1NKE, C1NLE, and C1NME.

[45CSR13, R13-0822, A.1 and B.9; 45CSR§7-4.1.]

- 5.1.2. The following equipment emit trace quantities of particulate matter with an aerodynamic diameter greater than 10 micrometers.

Emission Point ID	Source Description	Control Device
C1NFE	C1NF (Dryer)	C1NFC (Cyclone)
C1JYE	C1NA (Blenders) C1JY (Conveying)	C1JYC (Baghouse)
C1JXE	C1JX (Conveying)	C1JXC (Box Filter)
C1NIE	C1NI (Conveying)	C1NIC (Baghouse)
C1NJE	C1NJ (Conveying)	C1NJC (Baghouse)

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission units C1NF, C1JY, C1JX, C1NI, and C1NJ venting through emission points C1NFE, C1JYE, C1JXE, C1NIE, and C1NJE.

[45CSR13, R13-0822, A.2 and B.9; 45CSR§7-4.1.]

- 5.1.3. 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. (C1JSE, C1NBE, C1JWE, C1JZE, C1NKE, C1NLE, C1NME, C1NFE, C1JYE, C1JXE, C1NIE, and C1NJE)

[45CSR13, R13-0822, B.9; 45CSR§7-3.1.]

- 5.1.4. The provisions of 5.1.3 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. (C1JSE, C1NBE, C1JWE, C1JZE, C1NKE, C1NLE, C1NME, C1NFE, C1JYE, C1JXE, C1NIE, and C1NJE)

[45CSR13, R13-0822, B.9; 45CSR§7-3.2.]

5.2. Monitoring Requirements

- 5.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (5.1.3 and 5.1.4 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, including, but not limited to, the emission points addressed in 5.1.1 and 5.1.2. The opacity monitoring and record keeping shall include visual emission checks for all emission points subject to a particulate matter emission limit contained in R13-0822.

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 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. (*CIJSE, CINBE, CIJWE, CIJZE, CINKE, CINLE, CINME, CINFE, CIJYE, CIJXE, CINIE, and CINJE*)

[45CSR13, R13-0822, B.1]

- 5.2.2. The permittee shall properly maintain and operate the vent condenser pre-cooler (C1JEC1) and the vent condenser (C1JEC2) to minimize emissions of Ozone Depleting Compounds (ODC). The permittee shall:
- Maintain flow valves to and from the vent condenser pre-cooler (C1JEC1) in an open position during all times that ODC laden gases are being routed to the vent condenser pre-cooler. The permittee shall verify the proper operation of the vent condenser pre-cooler and record such observation once per shift.
 - Maintain the vent condenser (C1JEC2) exit vapor flow temperature at or below -60 F during all times that ODC laden gases are being routed to the vent condenser. The vapor exit temperature will be monitored and an alarm will go off if the exit temperature is above -60 F for more than five minutes in run mode. A log of all such alarms will be kept, that includes the date of the alarm, what was done to remove from alarm condition, and the initials of the operator involved.

[45CSR13, R13-0822, B.2]

5.3. Record keeping Requirements

- 5.3.1. Records of the visible emission observations required in 5.2.1 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 on-site for a period of no less than five (5) years. 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." (*CIJSE, CINBE, CIJWE, CIJZE, CINKE, CINLE, CINME, CINFE, CIJYE, CIJXE, CINIE, and CINJE*)
- [45CSR13, R13-0822, B.1]**
- 5.3.2. The permittee shall maintain and operate all air emissions control devices installed at the C1-T Area in accordance with proper operational guidelines to minimize emissions. For all air emissions control devices installed at the C1-T 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 control devices include, but are not limited to those identified as: baghouses C1NBC, C1JWC; and condensers C1JEC1 and C1JEC2.

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.

These records may be maintained electronically or in hard copy form, and shall be made available for review upon request of the Director of the Division of Air Quality.

[45CSR13, R13-0822, B.3]

- 5.3.3. For the purpose of determining compliance with the maximum emission limits set forth in 5.1.1, the permittee shall maintain records equivalent to the example record keeping form supplied as Attachment A of Appendix B, and emission reports equivalent to the monthly and annual reports supplied as Attachments B and C of Appendix B. These production records shall be readily available upon request by the Director and shall be kept onsite for a period of five years.

[45CSR13, R13-0822, B.4]

- 5.3.4. Compliance with the emission limits set forth in 5.1.1 for emission point C1NEE, the material balance area, shall be demonstrated by calculating emissions using a material balance, as demonstrated in permit application R13-0822. Compliance monitoring for the material balance area will be as follows:

- a. During the month, frequent preliminary material balances will be performed. The frequency of the preliminary material balances will be dependant upon operations uptime and how close the preliminary numbers are to the permit limits, but will be, at a minimum, once per run cycle during times that the process is in operation.
- b. The permittee will maintain an exception log to track those times when the preliminary material balance results in a negative value of 1,500 pounds or greater, causing an investigation into the reason for the high negative number. The exception log will include the date, pollutant in question, the negative quantity, cause for the negative calculation, and any corrective action taken.
- c. Using the monthly totals from the data historian and other data sources, the permittee will calculate the monthly emissions and maintain a rolling twelve (12) month emissions total. The permittee may keep the material balance calculation in an electronic format. The permittee shall keep records similar to and containing, at a minimum, the information in Attachments A, B, and C of Appendix B.

[45CSR13, R13-0822, B.5]

- 5.3.5. All records shall be maintained on-site, for a period of five (5) years, except where a time period is specifically stated within a requirement, rule, or regulation. These records may be maintained electronically or in hard copy form. Certified copies of these records shall be made available to the Secretary of the Division of Air Quality or his or her duly authorized representative upon request.

[45CSR13, R13-0822, B.11]

5.4 Reporting Requirements

- 5.4.1. The following equipment is used on an as-needed basis and may not be operated for extended periods of time. This equipment is exempt from the reporting requirement set forth in 3.5.10. Written notification shall be provided to the DAQ in the event of permanent shutdown of this equipment.

Identification Number	Description
CIFO	Solvent refining
CINO	Tank

[45CSR13, R13-0822, B.6]

6.0. C2 Area

6.1. Limitations and Standards

- 6.1.1. Emissions to the atmosphere of PM₁₀ shall not exceed the hourly and annual emission limits as set forth in Table 6.1.1.

Table 6.1.1 - PM₁₀ 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	0.01
C2DTE	C2DW, C2EH	0.5	1.03
C2EBE1, C2EBE2	C2EB	0.4	0.87
C2ENE	C2EN	0.4	0.85
C2EQE	C2EQ	0.1	0.01
C2ERE	C2ER	1.0	2.11
C2KIE	C2KI	0.1	0.18
C2KPE	C2KP	0.1	0.09
C2DJE	C2DJ	0.1	0.01
C2DKE	C2DK	0.1	0.01
C2EGE	C2EG	0.1	0.01
C2EUE	C2DO, C2EU	0.1	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, C2ERE, C2KIE, C2KPE, C2DJE, C2DKE, C2EGE, and C2EUE. Compliance with the above PM₁₀ 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]

- 6.1.2. Emissions to the atmosphere of VOC shall not exceed the hourly and annual emission limits as set forth in Table 6.1.2.

Table 6.1.2. - VOC Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX	12.9	2.14
C2DBE	C2DI, C2KL	2.2	5.07
C2DHE	C2DH	0.1	0.10
C2DJE	C2DJ	3.7	3.23
C2DKE	C2DK	3.7	3.23
C2DME	C2DM	0.3	0.26
C2EBE1, C2EBE2	C2EB	1.5	4.25
C2EFE	C2EF, C2EJ	75.1	7.12
C2EGE	C2EG	5.5	5.99
C2EJE	C2EJ, C2DG	107.2	3.81
C2EQE	C2EQ	0.6	0.12
C2ERE	C2ER	4.5	11.91
C2ETE	C2ET	2.3	5.86
C2EVE	C2EV	67.7 ¹	0.33
C2KAE	C2KJ	0.1	0.01
C2KDE	C2KD	0.2	0.30
C2KIE	C2KI	0.3	0.49
Area	C2KQ	5.5	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]

- 6.1.3. Emissions to the atmosphere of Hydrogen Fluoride shall not exceed the hourly and annual emission limits as set forth in Table 6.1.3.

Table 6.1.3. - HF Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DBE	C2DI, C2KL	1.12	0.31
C2DHE	C2DH	0.02	0.06
C2DME	C2DM	0.03	0.04
C2EBE1 C2EBE2	C2EB	0.02	0.04
C2EQE	C2EQ	0.03	0.01
C2ERE	C2ER	0.04	0.10
C2ETE	C2ET	0.02	0.05
C2KAE	C2KJ	0.01	0.02
C2KDE	C2KD	0.06	0.14
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]

- 6.1.4. 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 6.1.4.

Table 6.1.4. - HAP Emission Limits

Emission Point ID	Source ID	Pollutant	Emission Limit (tpy)
C2EFE	C2EF, C2EJ	Toluene	0.01
C2EJE	C2DG, C2EJ	Toluene	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 6.1.4 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).

[45CSR13, R13-1953, 4.1.4]

- 6.1.5. Emissions to the atmosphere of Ammonium Perfluorooctanoate (APFO) shall not exceed the hourly and annual emission limits as set forth in Table 6.1.5.

Table 6.1.5. - 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]

- 6.1.6. 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]

- 6.1.7. 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 except as noted in 6.1.8. (*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.]

- 6.1.8. The provisions of 6.1.7. 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. (*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.]

- 6.1.9. 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
C2EQ	C2EQE	0.018

(C2EQ venting through C2EQE)

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

- 6.1.10. Process equipment C2ES shall be vented to the thermal converter (Equipment ID No. T7IMC). The thermal converter (Equipment ID No. T7IMC) is permitted under permit R13-1823. [45CSR13, R13-1953, 4.1.10]
- 6.1.11. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 3.1.10 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]
- 6.1.12. 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/m³

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

- 6.1.13. 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]

6.2. Monitoring Requirements

- 6.2.1. For the purpose of determining compliance with 6.1.1, the permittee shall perform routine monitoring of bagfilter systems in accordance to the requirements set forth in Table 6.2.1.

Table 6.2.1. - 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

Control Device ID	Source ID	Claimed PM Control Efficiency (%)	Compliance Monitoring		
			Activity	Operating Parameter or Permitted Limit	Inspection Frequency
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 system C2DJC, C2DKC, C2DSC, C2EGC, C2ENC, C2KPC, and C2EUC shall be subject to periodic opacity monitoring as required per 6.2.2.
- b. For control systems C2DWC1 and C2EHC1, the process interlock and monitoring requirements are specified in 6.2.4. Compliance with the conditions of 6.2.4 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 6.2.1., shall be maintained per condition 3.4.9.

[45CSR13, R13-1953, 4.2.1]

6.2.2. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1, 3.2, and 3.7 set forth in conditions 6.1.7, 6.1.8, and 6.1.11, 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 6.1.1. 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]

- 6.2.3. The equipment shown in the following Table 6.2.3 shall be used on an as-needed basis and may not be operated for extended periods of time:

Table 6.2.3. – Intermittent Sources

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

Equipment listed in Table 6.2.3 shall be exempt from the maximum forty-five (45) day period between monitoring sessions as required by 6.2.2. 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]

- 6.2.4. 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 6.2.4. - 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.
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, 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 C 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 6.2.1., the permittee is required to only make one record of the malfunction occurrence to comply with both requirements.

[45CSR13, R13-1953, 4.2.4]

6.3. Testing Requirements

- 6.3.1. 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]**
- 6.3.2. 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]**
- 6.3.3. For the purpose of determining compliance with the emission limits of the dryer units C2DW, and C2EH, in 6.1.1, 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]

6.4. Record keeping Requirements

- 6.4.1. For the purpose of determining compliance with the permit limits based on the maximum permitted emission rates as described in 6.1.1, 6.1.2, 6.1.3, 6.1.4, and 6.1.5, 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 C of this permit. **[45CSR13, R13-1953, 4.4.5]**
- 6.4.2. The permittee shall maintain records of all monitoring data required by 6.2.2., 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]**
- 6.4.3. Certified copies of all records required to be maintained under Condition 3.4.1 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]

6.5. Reporting Requirements

- 6.5.1. Equipment listed in Table 6.2.3 shall be exempt from the requirements set forth in 3.5.10. The permittee shall provide written notification to the DAQ in the event of permanent shutdown of this equipment item.

[45CSR13, R13-1953, 4.5.1]

7.0. C3 Area

7.1. Limitations and Standards

- 7.1.1. Emissions within the Telomers (C3) Area, as listed in 7.1.4, 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 D, Attachment A of this permit.
[45CSR13, R13-2391, A.1]
- 7.1.2. Except for those emissions limited by Table 7.1.4 of this permit, all process vents from the C3 process equipment shown in Table 7.1.2 shall direct process related emissions to the thermal converter T7IMC covered in permit R13-1823B and subsequent revisions.

Table 7.1.2

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	{Blank} C3IA	{Blank} Filter

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

- 7.1.3. During routine operations and during periods of preparation for cleaning and/or maintenance, emissions from the equipment identified in Table 7.1.3 shall be routed through the associated air pollution equipment prior to being released into the atmosphere.

Table 7.1.3

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]

- 7.1.4. The maximum allowable emissions released to the atmosphere during normal operations shall be limited to the pollutants and associated emission rates shown in Table 7.1.4.

Table 7.1.4

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	0.36 0.80	0.28 0.58	—	—	—	—	—	---
C3IQE	0.36 0.40	0.28 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; 45CSR§7-4.1.]

- 7.1.5. 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.]

- 7.1.6. The provisions of 7.1.5. 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.]

7.2. Monitoring Requirements

- 7.2.1. Reserved.
- 7.2.2. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (7.1.5 and 7.1.6 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.]

7.3. Record keeping Requirements

- 7.3.1. Records of the visible emission observations required in 7.2.2 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.]
- 7.3.2. For the purpose of determining compliance with the maximum emission limits set forth in 7.1.4, the permittee shall maintain records equivalent to the example record keeping form supplied as Appendix D, Attachment A to this permit, and emission reports equivalent to the monthly and annual reports supplied as Appendix D, Attachments B and C to this permit. All records shall be documented and maintained in accordance to the requirements set forth by 7.3.8 of this permit.
[45CSR13, R13-2391, B.2]
- 7.3.3. The permittee shall maintain certified records documenting the compliance with the requirement that L2 Scrubber (C3HGC) solution be changed when the solution is spent. The solution status is determined by calculation based on stoichiometry, per the unit's operating directions. The calculations are done by the process's control system. To show compliance, the maximum value of the calculations done by the control system and the number of times the calculated variable exceeds the maximum allowable value of sixty-three (63) shall be recorded monthly in a form equivalent to the example form supplied as Attachment A of Appendix D. All records shall be documented and maintained in accordance to the requirements set forth by 7.3.8 of the permit.
[45CSR13, R13-2391, B.3]
- 7.3.4. The permittee shall maintain certified records documenting the compliance with the requirement that L3 Scrubber (C3HPC) solution be changed when the solution is spent. The solution status is determined by calculation based on stoichiometry, per the unit's operating directions. The calculations are done by the process's control system. To show compliance, the maximum value of the calculations done by the control system and the number of times the calculated variable exceeds the maximum allowable value of sixty-three (63) shall be recorded monthly in a form equivalent to the example form supplied as Attachment A of Appendix D. All records shall be documented and maintained in accordance to the requirements set forth by 7.3.8 of this permit. **[45CSR13, R13-2391, B.4]**

- 7.3.5. 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]
- 7.3.6. Reserved.
- 7.3.7. For the purpose of determining compliance with the requirement that emission units be routed to control devices as set forth in 7.1.3, the permittee shall confirm and record on a monthly basis that the emission units listed in 7.1.3 were in fact routed to the required control device.
[45CSR§30-5.1.c.]
- 7.3.8. 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]

8.0. T1, T2, T3, T4, and T7 Areas

8.1. Limitations and Standards

8.1.1. 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	1380	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]

8.1.2. 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, T7JCE, and T7XIE.

[45CSR13, R13-1823, 4.1.2.; 45CSR§7-4.2]

8.1.3. 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.]

8.1.4. 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.]

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

North Tank Farm Scrubber (T2ERC)	Value	Units
Maximum Scrubber Temperature	82	°C
Minimum Liquor Makeup Flow	1000	pounds/hour
Minimum Re-circulation Pump Current (if Make-up Water Flow is less than 1,000 pph)	1.4	Amps

Thermal Converter - Combustion (T7IMC)	Value	Units
Minimum Combustion Chamber Temperature	1,800	°F
Maximum Waste Gas Feed Rate	1,910	pph

Thermal Converter - Scrubber (T7IMC)	Value	Units
Maximum Flue Gas Flow	12,700	pph
Delta Pressure	10	inches W.C.
Minimum Re-circulated Liquor Flow (1st Stage)	40	gpm
Minimum Re-circulation Pump Current (1st Stage) (if Minimum Re-circulation Liquor Flow Indication is less than 40 gpm)	1.0	Amps
Requirements when 4th Stage is not operating:		
Liquor Flow Range (3rd Stage) (Dilute NaOH)	40 to 100	gpm
Liquor pH Minimum (3rd Stage)	7.5	pH
Requirements when 4th Stage is operating (Stage 3 may be shutdown):		
Liquor Flow Range (4th Stage) (Dilute Na ₂ SO ₃ , pH adjusted)	40 to 100	gpm
Liquor Oxidation/Reduction Potential (4th Stage)	≤ +400	millivolts vs Ag/AgCl ref. electrode
Liquor pH Minimum (4th Stage)	7.1	pH

Neutralization System Scrubber (T7JDC)	Value	Units
Scrubber Liquor Flow Range	0.5 to 2	gpm
Daily Confirmation of Blower Operation		

South Stillhouse Scrubber (T7XIC)	Value	Units
Maximum Scrubber Temperature	140	°F
Minimum Scrubber Liquor Circulation Rate	200	gpm

[45CSR13, R13-1823, 4.1.5.]

8.1.6. 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.]

8.1.7. 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/CO ₂ System Vents	T2EX	Thermal Converter	T7IMC

[45CSR13, R13-1823, 4.1.7.]

8.1.8. 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	T2ERC
		South Stillhouse Scrubber	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.]

- 8.1.9. 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.]
- 8.1.10. 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.]
- 8.1.11. 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.]
- 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. (*T2ERE, T7JCE, and T7XIE*)
[45CSR13, R13-1823, 4.1.12.; 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. (*T2ERE, T7JCE, and T7XIE*)
[45CSR13, R13-1823, 4.1.13.; 45CSR§7-3.2.]
- 8.1.14. 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.]
- 8.1.15. The permitted facility shall comply with all applicable requirements of 40 C.F.R. 60, Subpart DDDD - Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999.
- a. On or before September 30, 2003, the permittee shall achieve "Final Compliance" and meet or exceed the following requirements and/or operating limitations:
- i. The control plan, described in 40 C.F.R. §60.2600, and the waste management plan, described in 40 C.F.R. §§60.2620 through 60.2630, shall be submitted.
- ii. Implementation of the operator training program described in 40 C.F.R. §§60.2635 through 60.2665.
- iii. Emissions from the Thermal Converter (T7IM) through emission point (T7IME) shall not exceed ten (10) percent opacity and shall be limited to the compounds and associated emission rates established in the following table:

Compound	Emission Limit ¹	Units
Carbon Monoxide (CO)	157	ppm, dry volume
Nitrogen Oxides (NO _x)	388	ppm, dry volume
Particulate Matter (PM)	70	mg/DSCM
Sulfur Dioxide (SO ₂)	20	ppm, dry volume

Compound	Emission Limit ¹	Units
Cadmium	0.004	mg/DSCM
Dioxins/Furans	0.41	ng/DSCM
Hydrogen Chloride	62	ppm, dry volume
Lead	0.04	mg/DSCM
Mercury	0.47	mg/DSCM

1- All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions.

- b. The facility shall, within 180 days of September 30, 2003 (or the date of Final Compliance), conduct compliance testing per the requirements of 40 C.F.R. §§60.2690 and 60.2700, subject to any waiver approved by the DAQ pursuant to 40 C.F.R. §60.8(b)(4).
- c. Prior to the date of the performance test, the facility shall implement the parameter monitoring requirements of §60.2730, as modified by any approved alternate monitoring method allowed per 40 C.F.R. §60.13(i).
- d. The facility must operate within the CISWI emission limits set forth in 8.1.15.a.iii and monitoring parameters determined during the initial performance test. The parameters shall include, but not limited to, the following:
 - i. Maximum incinerator charge rate
 - ii. Minimum scrubber delta pressure
 - iii. Minimum scrubber liquor flow
 - iv. Minimum scrubber liquor pH

The operating parameters are described in §60.2675. Emission limits set forth in 8.1.15.iii and the monitoring parameters described above shall apply at all times except during CISWI unit startups, shutdowns, and malfunctions. Each malfunction must last no longer than 3 hours.

- e. The facility shall demonstrate continuous compliance with CISWI requirements as follows:
 - i. Conduct an annual test for particulate matter, hydrogen chloride, and opacity. Annual performance test shall be conducted within 12 months following the initial performance test. Subsequent annual performance tests shall be conducted within 12 months following the previous one, except as provided in 8.1.15.f.
 - ii. Monitor the parameters specified in 8.1.15.d to stay within the limits established during the most recent performance test. Operating 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.
 - iii. Evaluate any change to waste feeds. You must only burn the same types of waste used to establish operating limits during the performance test.
- f. The facility may conduct subsequent performance tests less often than specified in 8.1.15.e.i. for a given pollutant if they have 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 that they comply with the emission limitation. In this case, they do not have to conduct a performance test for that pollutant for the next 2 years. The facility 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 facility 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 facility must conduct annual performance tests for that pollutant until all performance tests over a 3-year period show compliance.

- g. The facility must conduct a repeat performance test at any time to establish new values for the operating limits. The Director may request a repeat performance test at any time. In addition, the facility must repeat the performance test if the feed stream is different than the feed streams used during any performance test used to demonstrate compliance.
- h. The facility shall install, calibrate (to manufacturer's specifications), maintain, and operate devices (or established methods) for monitoring the parameters for CISWI listed in 8.1.15.d. These devices (or methods must measure and record the values for the parameters continuously except during periods of calibration and malfunctions of the monitor. In addition, the facility shall keep the CISWI records listed in 40 C.F.R. §60.2740 and the reports listed in §60.2750.
- i. The facility shall submit the initial and annual CISWI performance test reports within 60 days of completion of the testing. The report shall describe the new operating limits for the monitoring parameters listed in 8.1.15.d and the initial test report shall include the information specified in §60.2760.
- j. The facility shall submit a CISWI annual report containing the items listed in 40 C.F.R. §60.2770. The first report shall be submitted no later than 12 months following the submission of the initial performance test report with subsequent reports submitted no more than 12 months following the previous report.
- k. The facility shall submit a semi-annual deviation report in accordance with §§60.2775 and 60.2780, if any are recorded, by August 1st for the first half of the year, and February 1st for the second half of the year.

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.; 45CSR18; 40 C.F.R. 60 Subpart DDDD; and 45CSR§6-4.3]

8.1.16. Reserved.

8.1.17. Reserved.

8.1.18. The permittee shall comply with all applicable requirements of 40 C.F.R. 63, Subpart NNNNN - "National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production" no later than April 17, 2006. The permittee shall submit a complete application for a significant Title V permit modification to the Title V permit, which coincides with the submittal of the Notification of Compliance Status (NOC) report required by 40 C.F.R. 63, Subpart NNNNN (December 17, 2006).

[45CSR34; 40 C.F.R. §63.8995; 45CSR13, R13-1823, 4.1.16.]

8.1.19. The Emergency Generator (T7JJ) shall comply with all applicable requirements of 40 C.F.R. 63, Subpart ZZZZ - "National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines" no later than 3 years after the date of publication of the final rule in the Federal Register. An Initial Notification as described in 40 C.F.R. §63.6645(b) shall be submitted no later than 120 days after the date of publication of the final rule in the Federal Register. The permittee shall submit a complete

application for a significant Title V permit modification to include the specific requirements of 40 C.F.R. 63, Subpart ZZZZ in the operating permit no less than 6 months prior to the compliance date.
[45CSR34; 40 C.F.R. §§63.6595(a)(1) and 63.6645(b)]

8.2. Monitoring Requirements

- 8.2.1. 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 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 within three (3) days of the first identification 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.

- 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]

- 8.2.2. 40 C.F.R. 60 Subpart DDDD Monitoring Requirements for the Thermal Converter (*T7IM*) are provided in 8.1.15.

8.3. Testing Requirements

8.3.1. 40 C.F.R. 60 Subpart DDDD Testing Requirements for the Thermal Converter (T7IM) are provided in 8.1.15 except for the following averaging times and performance test methods.

Air Pollutant	Averaging Time	Performance Test Methods
Cadmium	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of 40 C.F.R. 60, Appendix A)
Carbon monoxide	3-run average (1 hour minimum sample time per run).	Performance test (Method 10, 10A, or 10B, of 40 C.F.R. 60, Appendix A)
Dioxins/furans (toxic equivalency basis)	3-run average (1 hour minimum sample time per run).	Performance test (Method 23 of 40 C.F.R. 60, Appendix A)
Hydrogen chloride	3-run average (1 hour minimum sample time per run).	Performance test (Method 26A of 40 C.F.R. 60, Appendix A)
Lead	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of 40 C.F.R. 60, Appendix A)
Mercury	3-run average (1 hour minimum sample time per run).	Performance test (Method 29 of 40 C.F.R. 60, Appendix A)
Opacity	6-minute averages	Performance test (Method 9 of 40 C.F.R. 60, Appendix A)
Oxides of nitrogen	3-run average (1 hour minimum sample time per run).	Performance test (Method 7, 7A, 7C, 7D, or 7E of 40 C.F.R. 60, Appendix A)
Particulate matter	3-run average (1 hour minimum sample time per run).	Performance test (Method 5 or 29 of 40 C.F.R. 60, Appendix A)
Sulfur dioxide	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40 C.F.R. 60, Appendix A)

[45CSR18, TABLE 1; 40 C.F.R. 60 Subpart DDDD, Table 2; 45CSR13, R13-1823, 4.3.3.]

8.3.2. **Opacity testing.** Any test to determine compliance with the visible emissions (opacity) limitations set forth in 8.2.1 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, 4.3.2.]

8.4 Record keeping Requirements

- 8.4.1. For the purpose of determining compliance with the process emission limits set forth in 8.1.1 and 8.1.2, and the operating limitations set forth in 8.1.5, 8.1.6, and 8.1.7, the permittee shall maintain records equivalent to the example monthly record keeping form supplied as Attachment A of Appendix E, and the emission reports equivalent to the monthly and annual reports supplied as Attachments D and E of Appendix E. 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.]
- 8.4.2. For the purpose of determining compliance with the maintenance emission limits set forth in 8.1.4, and the operating limitations set forth in 8.1.8, the permittee shall maintain records equivalent to the example monthly record keeping form supplied as Attachment B of Appendix E, and the emission reports equivalent to the monthly and annual reports supplied as Attachments D and E of Appendix E. 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.]
- 8.4.3. For the purpose of determining compliance with the control device parameter monitoring specified in 8.1.5., the permittee shall maintain records equivalent to the example monthly record keeping form supplied as Attachment C of Appendix E. 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.]
- 8.4.4. Notwithstanding the requirements in Section 3.4.6. of this permit, malfunctions (defined as monitoring parameters outside acceptable values defined in 8.1.5.) of the North Tank Farm Scrubber (T2ERC), the Thermal Converter (T7IMC), the Neutralization System Scrubber (T7JCC), 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 E. 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:
- The equipment involved and associated cause of the malfunction.
 - Steps taken to correct the malfunction.
 - Steps taken to minimize emissions during the malfunction.
 - The duration of the malfunction.
 - The estimated increase in emissions during the malfunction.
 - 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 8.4.4 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 8.4.4 will remain applicable.

[45CSR13, R13-1823, 4.4.7.]

- 8.4.5. 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.]**
- 8.4.6. In addition to the monthly records of the quantity of fuel consumed in Furnace T1CD (required to be maintained in Attachment A of Appendix E), 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.]**
- 8.4.7. 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. 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.; 45CSR§30-5.1.c]**
- 8.4.8. 40 C.F.R. 60 Subpart DDDD Record keeping Requirements for the Thermal Converter (T7IM) are provided in 8.1.15.
- 8.4.9. 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). **[45CSR34; 40 C.F.R. §63.2343(a)]**
- 8.4.10. 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)]**
- 8.4.11. 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. 40 C.F.R. 60 Subpart DDDD Reporting Requirements for the Thermal Converter (T7IM) are provided in 8.1.15
- 8.5.2. If one or more of the events identified in paragraphs 8.5.2.1 through 8.5.2.4 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 8.4.10 and 8.4.11. The subsequent Compliance report shall be submitted according to the schedule in 40 C.F.R. §63.2386(b).
- 8.5.2.1. Any storage tank or transfer rack became subject to control under 40 C.F.R. 63, Subpart EEEE; or
- 8.5.2.2. 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.
- 8.5.2.3. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
- 8.5.2.4. 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)]

9.0. T5 Area

9.1. Limitations and Standards

9.1.1. Emissions released to the atmosphere shall be limited to the pollutants and maximum associated rates as shown in the following Table:

Emission Point ID	Source ID (Description)	Pollutant	Emission Limit	
			pph	tpy
T5HTE	T5HT (#1 Tank)	ODC VOC	0.2 27.4	0.01 0.06
T5HUE	T5HU (#2 Tank)	ODC VOC	0.2 27.4	0.01 0.06
T5HVE	T5HV (#3 Tank)	ODC VOC	0.2 27.4	0.01 0.06
T5HWE	T5HW (#4 Tank)	ODC VOC	0.2 27.4	0.01 0.06
T5HXE	T5HX (#5 Tank)	ODC VOC	0.2 27.4	0.01 0.06
T5HN (Area Emissions)	T5HN (Raw Material System)	VOC	2.2	0.01
T5HC & T5HD (Area Emissions)	T5HC (#4 Polykettle) T5HD (#5 Polykettle)	ODC VOC	0.1 1.7	0.02 7.14
T5HCE	T5HC (#4 Polykettle) T5HN (Raw Material System) T5HW (#4 Tank)	ODC VOC	0.1 10.4	0.01 0.23
T5HCE2	T5HC (#4 Polykettle)	ODC VOC	0.7 173.5	0.01 0.60
T5HDE	T5HD (#5 Polykettle) T5HX (#5 Tank)	ODC VOC	0.1 10.4	0.01 0.21
T5HDE2	T5HD (#5 Polykettle)	ODC VOC	0.7 173.5	0.01 0.60
T5HAE	T5HA (#1 Heater)	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)	NO _x 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
T5HGE	T5HG (#1 Dryer)	PM PM ₁₀ APFO ¹	0.5 0.1 ³ 0.022	1.22 0.22 0.04
T5HIE	T5HI (#2 Dryer)	PM PM ₁₀ ODC APFO ¹	0.7 0.2 ³ 0.2 0.028	0.92 0.17 0.30 0.03
T5HKE	T5HK (Process Tank) T5HL (Process Tank)	ODC	0.5	1.97
T5HQE	T5HQ (Oven)	HF (7664-39-3)	0.01	0.022
T5HRE	T5HR (Oven)	HF (7664-39-3)	0.01	0.022
T5HYE	T5HY (Chiller)	Methanol (67-56-1)	0.11	0.780
T7XIE ²	T5HC (#4 Polykettle)	VOC ODC	0.3 0.1	0.01 0.01
	T5HD (#5 Polykettle)	VOC ODC	0.3 0.1	0.01 0.01
	T5HM (Monomer System)	VOC ODC	95.6 0.4	0.07 0.01
	T5HN (Raw Material System)	VOC	0.3	0.01
	T5HP (Raw Material Tank)	VOC ODC	42.3 0.2	0.12 0.01
	T5HW (#4 Tank)	VOC ODC	36.1 0.2	0.08 0.01
	T5HX (#5 Tank)	VOC ODC	36.1 0.2	0.08 0.01

- 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 Permit R13-1823.
 - 3 - Compliance with the above hourly particulate matter emission limit shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limit.
- 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.

[45CSR13, R13-1353, A.1, 45CSR§7-4.1]

- 9.1.2. Heater #1 [T5HA] is a natural gas-fired heater limited to a maximum heat input 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]
- 9.1.3. Heater #2 [T5HB] is a natural gas-fired heater limited to a maximum heat input 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]
- 9.1.4. 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]
- 9.1.5. 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 and B.2]
- 9.1.6. 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]
- 9.1.7. For the purpose of modeling, as described in Specific Requirement 3.1.15., the emissions of APFO from sources associated with this area, shall include the emission points and discharge specifications shown in the following Table:

Emission Point	Discharge Area (ft ²)	Height Above Grade (ft)	Volume Flow Rate (ACFM)	Temp. (°F)	UTM Coordinates	
					Northing (m)	Easting (m)
T5HGE	3.02	63	8,057	123	4,346,757	441,928
T5HIE	2.09	64	2,800	300	4,346,758	441,926

[45CSR13, R13-1353, A.8]

- 9.1.8. Emissions associated with the batch operations of process tanks T5HK and T5HL shall be vented to the vent condenser, T5HKC, and to the atmosphere through emission point T5HKE.
[45CSR13, R13-1353, A.10]
- 9.1.9. 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]**

- 9.1.10. 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:

Emission Point ID	Source	Potential ODC Emissions		Pollution Control Description	Controlled ODC Emissions	
		Hourly (lb/hr)	Annual (TPY)		Hourly (lb/hr)	Annual (TPY)
T5HKE1	T5HK T5HL	8.93	39.31	Condenser T5HKC	0.5	1.97

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

- 9.1.11. 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]

- 9.1.12. Reserved.

- 9.1.13. 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]

- 9.1.14. 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. (T5HAE and T5HBE)

[45CSR§2-3.1]

- 9.1.15. 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.]

- 9.1.16. The provisions of 9.1.15. 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.]

- 9.1.17. 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

(T5HF, and T5HZ venting through emission points T5HFE, and T5HZE)

[45CSR13, R13-1353, B.2; 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 (9.1.15 and 9.1.16. 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]

9.2.2. To ensure compliance with the hourly and annual emission rates of particulate matter and APFO as set forth in 9.1.1, 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 modification to equipment or procedures that would help prevent future recurrence of the malfunction

This information 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]

9.2.3. 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 60-minute average 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]

9.3. Testing Requirements

9.3.1. None.

9.4. Record keeping Requirements

9.4.1. For the purpose of determining compliance with the permit limits based on the maximum annual operating parameters and emission rates of the natural gas-fired heaters, as described in 9.1.2 and 9.1.3, and the associated emission limits through Emission Points T5HAE and T5HBE established in Requirement 9.1.1, the permittee shall maintain monthly records of the heaters' operating

schedules and associated natural gas consumption rates. This information 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.4]

9.4.2. For the purpose of determining compliance with the permit limits based on the maximum permitted emission rates as described in 9.1.1, 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. This information shall be maintained on-site for a period of no less than five (5) years and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed 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.5 and 45CSR§30-5.1.c.]

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. This information shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1) and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed by a “Responsible Official” (as defined by 45CSR13). 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. (*T5HGE, T5HIE*)

[45CSR13, R13-1353, B.3; 45CSR§30-5.1.c.]

9.4.4. Additional record keeping requirements are provided in 9.2.2, 9.2.3, and 9.2.4.

9.4.5. 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)]**

9.4.6. 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)]**

9.4.7. 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)]**

9.5. Reporting Requirements

9.5.1. If one or more of the events identified in paragraphs 9.5.1.1 through 9.5.1.4 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 9.4.6 and 9.4.7. The subsequent Compliance report shall be submitted according to the schedule in 40 C.F.R. §63.2386(b).

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

9.5.1.2. 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.

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

9.5.1.4. 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)]

10.0. T6 Area

10.1. Limitations and Standards

10.1.1. 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]

10.1.2. 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 R13-1823 as well as any Amendments thereto.

[45CSR13, R13-0815, A.2]

10.1.3. 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]

10.1.4. 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 A.4. of R13-0815

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]

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

Table A.5. of R13-0815

Emission Point ID	Sources Vented	Description of Sources	Pollutants	Rates (lb/hr) ¹	Rates (ton/yr)
T6IIE	T6II	#1 Weigh Tank	VOC ODC ³	4.7 0.1	0.13 0.01
T6IJE	T6IJ	#2 Weigh Tank	VOC ODC	4.7 0.1	0.13 0.01
T6IKE	T6IK	#3 Weigh Tank	VOC ODC	4.7 0.1	0.13 0.01
T6ILE	T6IL	#4 Weigh Tank	VOC ODC	4.7 0.1	0.13 0.01
Area	T6PI	Feed System	Acetonitrile (107-13-1) VOC	0.01 17.8	0.001 0.42
Area	T6PJ (Raw Material System)	None	VOC	7.5	0.04

Emission Point ID	Sources Vented	Description of Sources	Pollutants	Rates (lb/hr) ¹	Rates (ton/yr)
T6IBE	T6II	#1 Weigh Tank	VOC	43.9	10.31
	T6PB	Feed System	ODC	0.2	0.03
	T6PI	Feed System	Acetonitrile (107-13-1)	0.01	0.004
	T6IB	Reactor #6	Toluene (108-88-3)	0.01	0.001
	T6QJ	#6 Tank			
	T6PJ	Raw Material System			
T6IBE2	T6IB	Reactor #6	VOC	406.6	0.21
			ODC	1.5	0.01
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
T6ICE	T6IJ	#2 Weigh Tank	VOC	43.9	10.32
	T6PB	Feed System	ODC	0.2	0.03
	T6PI	Feed System	Acetonitrile (107-13-1)	0.01	0.004
	T6IC	Reactor #7	Toluene (108-88-3)	0.01	0.001
	T6QK	#7 Tank			
	T6PJ	Raw Material System			
T6ICE2	T6IC	Reactor #7	VOC	406.6	0.21
			ODC	1.5	0.01
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001

Emission Point ID	Sources Vented	Description of Sources	Pollutants	Rates (lb/hr) ¹	Rates (ton/yr)
T6IDE	T6IK	#3 Weigh Tank	VOC	43.9	14.67
	T6PB	Feed System	ODC	0.2	0.05
	T6PI	Feed System	Acetonitrile (107-13-1)	0.01	0.008
	T6ID	Reactor #8	Toluene (108-88-3)	0.01	0.001
	T6QL	#8 Tank			
	T6PJ	Raw Material System			
T6IDE2	T6ID	Reactor #8	VOC	406.6	0.21
			ODC	1.5	0.01
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
T6IUE	T6IL	#4 Weigh Tank	VOC	56.1	14.55
	T6PB	Feed System	ODC	0.3	0.05
	T6PI	Feed System	Acetonitrile (107-13-1)	0.01	0.008
	T6IU	Reactor #9	Toluene (108-88-3)	0.01	0.001
	T6QM	#9 Zinc Chloride Tank			
	T6PJ	Raw Material System			
T6IUE2	T6IU	Reactor #9	VOC	406.6	0.21
			ODC	1.5	0.01
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
Area	T6QI	Knockout Pot	VOC	0.1	0.01
			ODC	0.1	0.01

Emission Point ID	Sources Vented	Description of Sources	Pollutants	Rates (lb/hr) ¹	Rates (ton/yr)
T6PCE	T6PC	Decanter #6	VOC	4.1	2.19
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
			ODC	0.1	0.01
T6PDE	T6PD	Decanter #7	VOC	4.1	2.19
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
			ODC	0.1	0.01
T6PEE	T6PE	Decanter #8	VOC	4.1	2.74
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
			ODC	0.1	0.01
T6PFE	T6PF	Decanter #9	VOC	4.1	2.74
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
			ODC	0.1	0.01
Area	T6PT	Decanter	VOC	8.1	0.71
			Acetonitrile (107-13-1)	0.01	0.001
			Toluene (108-88-3)	0.01	0.001
			ODC	0.1	0.01

Emission Point ID	Sources Vented	Description of Sources	Pollutants	Rates (lb/hr) ¹	Rates (ton/yr)
T6PGE	T6PG T6PH	Stabilization Tank #3 Stabilization Tank #4	VOC	8.1	0.46
			Acetonitrile (107-13-1)	0.01	0.001
			ODCs	0.1	0.01
T6PME	T6IW	#1 Float Tank	PM ₁₀	0.1	0.01
			APFO ²	0.00003	0.0001
T6IGE	T6IG T6IH	#2 Float Tank #3 Float Tank	PM ₁₀	0.1	0.01
			APFO ²	0.0001	0.0003
T6IZCE	T6IV T6IE T6IF	#1 Dryer #2 Dryer #3 Dryer	PM ₁₀	0.3	0.33
			APFO ²	0.248	0.325
T6IVE	T6IV	#1 Dryer	PM ₁₀	0.5	0.01
			APFO ²	0.414	0.004
T6IEE	T6IE	#2 Dryer	PM ₁₀	0.5	0.01
			APFO ²	0.414	0.003
T6IFE	T6IF	#3 Dryer	PM ₁₀	0.5	0.01
			APFO ²	0.414	0.003
T6IXE	T6IX	#1 Chiller Cooler Vent	PM ₁₀	0.1	0.01
			APFO ²	1.0 x 10 ⁻⁷	4.0 x 10 ⁻⁷
T6IYE	T6IY	#3 Chiller Cooler Vent	PM ₁₀	0.1	0.01
			APFO ²	1.0 x 10 ⁻⁷	4.0 x 10 ⁻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 (“C8”)

3 – ODC - ozone depleting compounds under Title VI of 1990 CAAA.

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission units T6IX, T6IY, T6IV, T6IE, and T6IF venting through emission points T6IXE, T6IYE, and T6IZCE.

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

- 10.1.6. Reserved.
- 10.1.7. 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]**
- 10.1.8. 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. (T6IXE, T6IYE, T6IZCE, T6PGE, T6PME, T6PNE, T6POE, T6PUE, T6PVE, T6PWE, T6PYE, T6QAE, and T6QBE)
[45CSR13, R13-0815, B.1; 45CSR§7-3.1.]
- 10.1.9. The provisions of 10.1.8. 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. (T6IXE, T6IYE, T6IZCE, T6PGE, T6PME, T6PNE, T6POE, T6PUE, T6PVE, T6PWE, T6PYE, T6QAE, and T6QBE)
[45CSR13, R13-0815, B.1; 45CSR§7-3.2.]
- 10.1.10. 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
T6IE ⁽¹⁾	T6IEE	4.2
T6IF ⁽¹⁾	T6IFE	4.2
T6IG	T6IGE	4.5
T6IH	T6IGE	4.5
T6IV ⁽¹⁾	T6IVE	4.2
T6IW	T6PME	4.5
T6IX	T6IXE	2.4
T6IY	T6IYE	2.4
T6PK	T6PKE	1.6
T6PM	T6PME	1.6
T6PN	T6PNE	1.6
T6PO	T6POE	1.6
T6PP	T6PPE	1.6
T6PR	T6PRE	13.0
T6PS	T6PSE	13.0

Emission Unit	Emission Point	45CSR7 Hourly Particulate Emission Limit pph
T6PX	T6PXE	4.0
T6PZ	T6PZE	14.8
T6SB	T6SBE	8.8
T6SE	T6SEE	14.8
T6SF	T6SFE	3.4
T6IE, T6IF, T6IV ⁽¹⁾	T6IZCE	11.2

(T6IE, T6IF, T6IG, T6IH, T6IV, T6IW, T6IX, T6IY, T6PK, T6PM, T6PN, T6PO, T6PP, T6PR, T6PS, T6PX, T6PZ, T6SB, T6SE, and T6SF, venting through emission points T6IEE, T6IFE, T6IGE, T6IVE, T6PME, T6IXE, T6IYE, T6PKE, T6PME, T6PNE, T6POE, T6PPE, T6PRE, T6PSE, T6PXE, T6PZE, T6SBE, T6SEE, T6SFE, and T6IZCE.)

(1) These emission units normally vent collectively to T6IZCE, but also may vent briefly and separately during upset conditions to their respective emission points T6IEE, T6IFE, and T6IVE.

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

10.2. Monitoring Requirements

- 10.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (10.1.8 and 10.1.9 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. *(T6IXE, T6IYE, and T6IZCE)*

[45CSR§30-5.1.c.]

10.3. Testing Requirements

- 10.3.1. For the purpose of determining compliance with the emission limits of the dryer units T6IV, T6IE, and T6IF in 10.1.5, the permittee shall conduct a compliance test of the permitted facility within 180 days of November 26, 2003.

This test shall be performed at the maximum permitted 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 of the 60-minute average production rate exceeds 120% of the rate demonstrated during the most recent test.

The testing shall include, but not be limited to, the emission point T6IZCE. 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]

10.4. Record keeping Requirements

10.4.1. For the purpose of determining compliance with the permit limits as described in 10.1.1, 10.1.2, 10.1.3, 10.1.4, and 10.1.5, 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 on-site for a period of no less than five (5) years and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed by a “Responsible Official” (as defined by 45CSR13) utilizing the Certification of Data Accuracy statement.

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

10.4.2. 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]

10.4.3. Records of the visible emission observations required by 10.2.1 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. (*T6IXE, T6IYE, and T6IZCE*)

[45CSR§30-5.1.c.]

11.0. Mineral Spirits Parts Cleaners (C1LD, T1JG)

11.1. Limitations and Standards

11.1.1. 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]

11.2. Testing

11.2.1. Test Method ASTM D323-72 shall be used for measuring the solvent true vapor pressure.

[45CSR§21-30.4.e.]

11.3. Record keeping

11.3.1. 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 (11.2.1.).

[45CSR§21-30.5. and 45CSR§30-5.1.c.]

11.4. Reporting

11.4.1. 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]

Appendix A: R13-2365 Attachments (C1-P Area)

**Attachment A
Monthly Records**

**DuPont Washington Works
Teflon PFA Area (C1)
Permit R13-2365**

Current month:
Data entered by:
Date entered:
Reviewed by:
Date reviewed:
Delegated Authority:
Date reviewed:

Equipment	Equipment ID No.	Value	Monthly Monitoring 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	C1FS		Maximum dispersion flow to filter (lb/hr)
Dried polymer production	N/A		lb polymer
Max. sustained extruder screw speed	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)

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry.

Signature¹ _____

(please use blue ink)

_____ Date

Name & Title _____

(please print or type)

_____ Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

Appendix B: R13-0822 Attachments (C1-T Area)

**Attachment A
Monthly Records**

**DuPont Washington Works
Teflon Tefzel Area (C1-T)
Permit R13-0822**

Current month:
Data entered by:
Date entered:
Reviewed by:
Date reviewed:
ASP review:
Date reviewed:

Equipment	Equipment ID No.	Monthly Monitoring	
		Value	Parameter
VOC1 Input	C1NE		Lbs.
VOC2 Input	C1NE		Lbs.
VOC3 Input	C1NE		Lbs.
VOC4 Input	C1NE		Lbs.
VOC5 Input	C1NE		Lbs.
VOC Input Losses from Emergency Relief Devices	C1NE		Lbs.
Product	C1NE		Drop Lbs.
Initiator Shipments	C1NE		# of Boxes
ODC Air Emissions			Lbs.
Product to Packout	C1JW		Lbs.
Extruder Rework	C1JT		Lbs.
Maximum Extruder RPM Sustained for an Hour	C1JT		RPM
Maximum Drop to Bin	C1JS		Lbs.

Appendix C: R13-1953 Attachments (C2 Area)

**Attachment A - Monthly Record keeping (Equipment)
DuPont Washington Works - Area (C2) - Permit R13-1953**

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

Equipment ID	Monthly Monitoring	
	Value	Parameter
C2DP		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2EP		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DX - tank		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DX - bottom valve		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DX - top valve		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DY - tank		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DY - bottom valve		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DY - top valve		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2DR		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
C2EE		# of times system deinventoried through C2EJE
		# of times system deinventoried through C2EFE
Facility		# of completed batches
C2DA		# of completed batches
C2DTE		Maximum pph held for one hour during the month
C2DS		pounds of flake to flake packout
C2EN		maximum pph conveyed for month
C2DI		# of trays processed
C2DI		maximum # of trays in one hour
C2EB		maximum RPM held for one hour
C2ER		maximum 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 D – Monthly Record keeping – Control Devices and Inherent Process Devices
DuPont Washington Works – Area (C2) – Permit R13-1953**

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	

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

Appendix D: R13-2391 Attachments (C3 Area)

**ATTACHMENT A
TELOMERS AREA (C3)
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 (T7IMC Down)	Facility		# of Product A trailers loaded
Product B Trailers	Facility		# of Product B trailers loaded
Product B Trailers (T7IMC Down)	Facility		# of Product B trailers loaded
Product C Trailers	Facility		# of Product C trailers loaded
Product C Trailers (T7IMC 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)
MONTHLY EMISSIONS RECORD**

Month: _____ Year: _____

Emission Point ID	Source ID	VOC		HF		PM ₁₀	
		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						
	C3IA						
C3IQE	C3IQ						
Area	C3IW						
Monthly Totals							
C3HG2E							
C2HGE							
C3HIE							
C3HPE							
C3IPE							
C3IQE							
Area							
Total -							

Appendix E: R13-1823 Attachments (T1, T2, T3, T4, and T7 Areas)

ATTACHMENT A

Record keeping for Process Emissions

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

Equipment	Equipment ID	Emission Point ID	Monthly Parameters			Control Device	Cont. Device Used? (Y/N)
			Max/hr	Total	Units		
Furnace	T1CA	T1CAE			MM scf	n/a	n/a
Furnace	T1CB	T1CBE			MM scf	n/a	n/a
Furnace	T1CC	T1CCE			MM scf	n/a	n/a
Furnace	T1CD	T1CDE			MM scf	n/a	n/a
Air Stripper	T2ES	T2ERE			lb 36% (wt) HCl	T2ERC	
Emergency Generator	T7JJ	T7JJE			Hrs Operation	n/a	n/a
Column - Process Vent (Problem with C/A)	T2XM	T7XIE			Hrs vented	T7XIC	
Column - Process Vent (High Inerts)	T2XM	T7XIE			Hrs vented	T7XIC	
Column - Condenser Operating Vents	T1XD	T7XIE			lb vented	T7XIC	
Storage Tanks - Process	T1BP-T	T7XIE			Tank vents	T7XIC	
Brine System - Starting Inventory	T7AA	T7XIE	n/a		gal	n/a	n/a
Methylene Chloride System - Ending Inventory	T7AA	T7XIE	n/a		gal	n/a	n/a
Brine System - Amount Added	T7AA	T7XIE	n/a		gal	n/a	n/a
Brine System - Amount Shipped in Waste	T7AA	T7XIE	n/a		gal	n/a	n/a
Brine System - Amount Spilled	T7AA	T7XIE	n/a		gal	n/a	n/a
Brine System - Amount Leaked into Process	T7AA	T7IME	n/a		gal	n/a	n/a
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	Equipment ID	T/C Operating		T/C not Operating		Units
		Max/hr	Total	Max /hr	Total	
Toluene Recovery Column - Process - Thermal Con.	T4GM			**	**	lb OH
FP/D Autoclaves #8 & #9 (PFA only)	T6ID & T6IU			*	*	batches
PFA Autoclave (Aqueous) -Aborted Batches	C1FQ			*	*	batches
PFA Autoclave (Aqueous) -Normal Batches	C1FQ			*	*	batches
Reactor Vent System	C2ES			**	**	lb vented
Vent Accumulator	C3IZ			**	**	lb vented
Column Process Vent	T4XK			**	**	lb OH
Column Pot Vent	T4XK			**	**	lb feed
Portable Container Facility - Thermal Converter	T7EM			**	**	lb F23
Thermal Converter Combustion Emissions	T7IMC			**	**	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

Record keeping 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	Control Device	Control Device? (Y/N)
Mixed Gas Holder	T1GN	T1GNE	Clear Mixed Gas Holder		n/a	
Storage Tank & Vaporizer	T1LF	T2ERE T7XIE	Clear Storage Tank (incl. Vaporizer)		T2ERC T7XIC	
Coolers	T1DD-F	T7IME	Clear a Cooler		T7IMC	
Bag Filters	T1DG&H	T7IME	Clear a Bag Filter		T7IMC	
Column	T1XD	T7IME	Clear Column		T7IMC	
Column	T4GM	T7IME	Clear Column		T7IMC	
Storage Tank	T4GO	T7IME	Clear Storage Tank		T7IMC	
Storage Tanks	T1BP-T	T7XIE	Evacuate a Storage Tank		T7XIC	
Column	T4GS	T7XIE	Evacuate Column		n/a	
Column	T4GS	T7XIE	Detox/dry Column with methanol		n/a	
Storage Tanks	T4GU, T4GV	T7XIE	Evacuate a Storage Tank		n/a	
Storage Tank	T4GW	T7XIE	Evacuate a Storage Tank		n/a	
Storage Tank	T4GX	T7XIE	Evacuate a Storage Tank		n/a	
Cylinder Loading	T4KA	T7XIE	Evacuate Cylinders (1 ton)		n/a	
Cylinder Loading	T4KA	T7XIE	Evacuate Cylinders (75 lb)		n/a	
Feed Tank	T4KB	T7XIE	Evacuate Feed Tank		n/a	
Truck/ISO Loading	T4KC	T7XIE	Evacuate Tank Truck		n/a	
Tank Car Loading	T4KD	T7XIE	Evacuate Tank Car		n/a	

ATTACHMENT C

Record keeping for Control Devices

Current Month: _____

Data entered by: _____

Date entered: _____

Reviewed by: _____

Date reviewed: _____

<i>North Tank Farm Scrubber (T2ERC)</i>	<i>Value</i>	<i>Units</i>
Maximum Scrubber Temperature		Deg C
Minimum Liquor Flow (or Minimum Recirculation Pump Current)		pph
Minimum Re-circulation Pump Current (or Minimum Liquor Makeup Flow)		amps

<i>Thermal Converter - Combustion (T7IMC)</i>	<i>Value</i>	<i>Units</i>
Minimum Combustion Chamber Temperature		Deg F
Maximum Waste Gas Feed Rate		lb/hr

<i>Thermal Converter - Scrubber (T7IMC)</i>	<i>Value</i>	<i>Units</i>
Maximum Flue Gas Flow		scfm
Scrubber Delta Pressure		in. W.C.
Minimum Liquor Flow - Primary Section (Recirculation Flow)		gpm
Minimum Liquor Flow - Primary Section (Pump Amps) (if re-circulation flow is less than 40 gpm)		Amps
For periods when 4 th Stage is not operated:		
Minimum Liquor Flow - 3 rd Section (Dilute NaOH)		gpm
Maximum Liquor Flow - 3 rd Section (Dilute NaOH)		gpm
Minimum Liquor pH - 3 rd Section		pH
For periods when 4 th Stage is operated:		
Minimum Liquor Flow - 4 th Section (Sulfite Solution)		gpm
Maximum Liquor Flow - 4 th Section (Sulfite Solution)		gpm
Maximum Oxidation/Reduction Potential - 4 th Section		mV vs Ag/AgCl
Minimum Liquor pH - 4 th Section		pH

<i>Neutralization System Scrubber (T7JDC)</i>	<i>Value</i>	<i>Units</i>
Minimum Scrubber Liquor Flow		gpm
Maximum Scrubber Liquor Flow		gpm
Daily Confirmation of Blower Operation		

<i>South Stillhouse Scrubber (T7XIC)</i>	<i>Value</i>	<i>Units</i>
Maximum Scrubber Temperature		Deg F
Minimum Scrubber Liquor Circulation Rate		gpm

ATTACHMENT D

Monthly Process Emissions

Current Month: _____

Emission Point Name	Emission Pt. ID	Monthly Process Emissions (pounds)									
		VOC		SO ₂		NO _x		CO		PM ₁₀	
		PPH	PPM	PPH	PPM	PPH	PPM	PPH	PPM	PPH	PPM
Furnace	T1CAE										
Furnace	T1CBE										
Furnace	T1CCE										
Furnace	T1CDE										
Dryers	T1DBE										
MGH Vent	T1GNE										
Raw Material Unloading	T1JBE										
Compressor Seal Purge	T1XAE										
North Tank Farm Scrubber	T2ERE										
Trailer Loading	T2EXE										
Analyzer	T2EYE										
Storage Tank	T4GBE										
Cooling Tower	T7AKE										
Portable Container Facility - Local Vent	T7EME										
Thermal Converter Stack	T7IME										
Silo	T7IOE										
Emergency Generator	T7JJE										
South Central Vent Stack	T7XIE										
Total Monthly Process Emissions											

PPH = Pounds Per Hour PPM = Pounds Per Month

Emission Point Name	Emission Pt. ID	Monthly Process HAP Emissions (pounds)													
		Chromium Compounds		HCl		HF		Methanol		Methylene Chloride		Toluene		Total HAPs	
		PPH	PPM	PPH	PPM	PPH	PPM	PPH	PPM	PPH	PPM	PPH	PPM	PPH	PPM
North Tank Farm Scrubber - Process	T2ERE														
Storage Tank	T4GBE														
Portable Container Facility	T7EME														
Thermal Converter Stack	T7IME														
Neutralization System Scrubber	T7JDE														
South Central Vent Stack	T7XIE														
Total Monthly Process Emissions															

Monthly Maintenance Emissions

Emission Point Name	Emission Pt. ID	Monthly Maintenance Emissions (pounds)					
		VOC	HCl	HF	Methanol	Toluene	Total HAPS
Mixed Gas Holder	T1GNE						
Feed Pump	T1LHE						
Feed Pump	T1LIE						
North Tank Farm Scrubber	T2ERE						
Storage Tank	T4GBE						
Thermal Converter Stack	T7IME						
Trailer Loading	T7JKE						
South Central Vent Stack	T7XIE						
Total Monthly Maintenance Emissions							

Appendix F: R13-1353 Attachment (T5 Area)

Reserved

Appendix G: R13-0815 Attachment (T6 Area)

CERTIFICATION OF DATA ACCURACY

This Certification of Data Accuracy shall be signed below by a Responsible Official or an Authorized Representative. A Responsible Official is a President, Vice President Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors or Owner, depending on business structure. An Authorized Representative may be certified through an official agreement submitted with the Permit Application. Any improperly signed or unsigned Certification of Data Accuracy shall constitute a violation of the terms and conditions of this Permit.

I, the undersigned, hereby certify that all information contained in ATTACHMENT _____, representing the period beginning _____ and ending _____ and any supporting documents appended hereto is true, accurate and complete based on information and belief after reasonable inquiry.

Signature _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____
(please print or type) Name Title

Permittee's Name _____

Telephone # _____ **Fax #** _____

Appendix H:

R13-2617 Attachment A for the Fluoropolymer Production Area Only

45CSR21 and 45CSR27 Source List for the Fluoropolymer Production Area only

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Included in Affected R13 Permit	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	R13-2365	No	Yes	No	
C1-P Area	C1FW-4	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1-P Area	C1FW-5	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1-P Area	C1FW-6	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1FQE	C1FW-3	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1FQE	C1FW-4	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1FQE	C1FW-5	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1FQE	C1FW-6	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1FWE	C1FW-1	Cylinder Deinventory	None	VOC	R13-2365	No	Yes	No	
C1FWE	C1FW-2	Cylinder Change	None	VOC	R13-2365	No	Yes	No	
C1FWE	C1FW-3	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1FWE	C1FW-4	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1FWE	C1FW-5	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1FWE	C1FW-6	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1GYE	C1FW-3	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1GYE	C1FW-4	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1GYE	C1FW-5	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1GYE	C1FW-6	System Inventory	None	VOC	R13-2365	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	R13-2365	No	Yes	No	
C1XGE	C1FW-4	System Deinventory	None	VOC	R13-2365	No	Yes	No	
C1XGE	C1FW-5	System Inventory	None	VOC	R13-2365	No	Yes	No	
C1XGE	C1FW-6	System Inventory	None	VOC	R13-2365	No	Yes	No	
C2DAE	C2EC	Mix Tank	None	VOC	R13-1953	No	Yes	No	
C2EJE	C2DP	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	
C2EJE	C2DC	Reactor	None	VOC	R13-1953	Yes			Removed from Service (Note #4)
C2EJE	C2DG	Reactor	None	VOC	R13-1953	Yes	Yes	No	
C2EJE	C2DR	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	
C2EJE	C2DX	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	
C2EJE	C2DY	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	
C2EJE	C2EE	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	
C2EFE	C2EF	Reactor	None	VOC	R13-1953	No	Yes	No	
C2EJE	C2EP-1	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Included in Affected R13 Permit	Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc)
							R21	R27	
C3 Area	Section C	Brine System - LDAR	None	TAP-M		No	No	Yes	Sources triggering OLD MACT Removed from Service
C3HGE	C3HI	Reactor	None	VOC	R13-2391	Yes	Yes	No	
C3HGE	C3HI-1	Reactor Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HGE	C3HJ	Distillation Column	None	VOC	R13-2391	Yes	Yes	No	
C3HGE	C3HT-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HGE	C3IH-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HGE	C3IK-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HGE	C3IL-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3HA-1	Scrubber Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3HB-1	Scrubber Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3HN-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3HO	Reactor	None	VOC	R13-2391	Yes	Yes	No	
C3HPE	C3HO-1	Reactor Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3HS-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3ID-1	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
C3HPE	C3IT	Tank Maintenance	None	VOC	R13-2391	No	Yes	No	
CDRE	System	System Inventory	None	VOC		No	Yes	No	
T Area	Section T	Brine System - LDAR	None	TAP-M	R13-1823	No	No	Yes	40 CFR 63.2346 (OLD MACT)
T1GNE	T1GN	Accumulator Maintenance	None	VOC	R13-1823	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	R13-1823	No	Yes	No	
T4GME	T4GM	Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T5HCE	T5HC	Reactor	None	VOC	R13-1353	Yes	Yes	No	
T5HDE	T5HD	Reactor	None	VOC	R13-1353	Yes	Yes	No	
T7XIE	T5HM	Monomer System	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T5HCE	T5HN	Monomer System	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T7XIE	T5HP	Salt Tanks	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T5HTE	T5HT	Refrigerated Monomer Storage	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T5HUE	T5HU	Refrigerated Monomer Storage	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T5HVE	T5HV	Refrigerated Monomer Storage	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T5HCE	T5HW	Weigh Tanks	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T5HDE	T5HX	Weigh Tanks	None	VOC	R13-1353	No	Yes	No	Intermittent maintenance emissions only.
T6IBE	T6IB	Reactor	None	VOC	R13-0815	Yes	Yes	No	
T6IBE	T6IL-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	
T6ICE	T6IC	Reactor	None	VOC	R13-0815	Yes	Yes	No	
T6ICE	T6IJ-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	
T6IDE	T6ID	Reactor	None	VOC	R13-0815	Yes	Yes	No	
T6IDE	T6IK-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	
T6IDE	T6PB-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	
T6IDE	T6PI-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	

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							R21	R27	
T6IDE	T6PJ-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	
T6PGE	T6PG	Process Tank	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
T6PGE	T6PH	Process Tank	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
	T6PT	Decanter	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
T6IBE	T6QJ	Salt Tank	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
T6ICE	T6QK	Salt Tank	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
T6IDE	T6QL	Salt Tank	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
T6IUE	T6QM	Salt Tank	None	VOC	R13-0815	No	Yes	No	Intermittent maintenance emissions only.
T6IUE	T6IL-1	Ingred. Tank Maintenance	None	VOC	R13-0815	No	Yes	No	
T6IUE	T6IU	Reactor	None	VOC	R13-0815	No	Yes	No	
T7IME	C1GH	Ingred. System S/U	T7IMC	VOC	R13-2365	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1BW	Acid Absorber	T7IMC	VOC	R13-1823	Yes	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1BX	Acid Absorber	T7IMC	VOC	R13-1823	Yes	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1CV	Dryer Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DD	New Cooler Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DE	New Cooler Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DF	New Cooler Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DG	Bag Filter Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DH	Bag Filter Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1DU	High Press. Piping Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XA	New Compressor Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XC	Acid Absorber	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XD	New Column Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XG	New Column Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T1XO	New Column Maintenance	T7IMC	VOC	R13-1823	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	R13-1823	Yes	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T4GO	Column Maintenance	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7IME	T4XK	New Column (replaced TFL)	T7IMC	VOC	R13-1823	No	Yes	No	45 CSR 18, 40 CFR 60 Subpart DDDD
T7XIE	T1BB	Compressor Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BC	Compressor Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BD	Compressor Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BE	Air Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BF	Air Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BG	Air Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BH	Air Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BI	Air Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BJ	Air Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BO-1	#2 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BO-2	#2 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BP-1	#1 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BP-2	#1 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BR-1	#3 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BR-2	#3 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	

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							R21	R27	
T7XIE	T1BS-1	#4 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BS-2	#4 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BT-1	#5 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1BT-2	#5 Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1CB	Furnance Maintenance #7	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1CC	Furnance Maintenance #8	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1CD	Furnance Maintenance #9	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1CW	Emergency Storage Tank Maint.	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1DS	Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1DT	Intercooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1DU	High Press. Piping Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1EE	On-Line Analyzer Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1EV	Furnance Maintenance #6	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1OU	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1XA	New Compressor Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1XD	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T1XG	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T2XJ	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T2XM	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T2XN	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T2XS	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T2XV	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T3FB	New Cooler Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GO	Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GP	Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GQ	Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GS	Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GT	Extract Col. Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GU	Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GV	Ingred. Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GW	Ingred. Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4GX	Ingred. Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4KA	Ingred. Tank Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4KB	Container Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4KC	Container Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4KD	Container Maintenance	None	VOC	R13-1823	No	Yes	No	
T7XIE	T4XK	New Column Maintenance	None	VOC	R13-1823	No	Yes	No	
T7AAE	T7AA	Brine System Tank	None	TAP-M	R13-1823	No	No	Yes	40 CFR 63.2346 (OLD MACT)