West Virginia Department of Environmental Protection
Division of Air Quality

Harold D. Ward
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
The Chemours Company FC, LLC
Washington Works
Fluoropolymers
R30-10700182-2021 (Part 2 of 14)

Laura M. Crowder
Director, Division of Air Quality

Issued: October 1, 2021 • Effective: October 15, 2021
Expiration: October 1, 2026 • Renewal Application Due: April 1, 2026

Permit Number: **R30-10700182-2021 (Part 2 of 14)**
Permittee: **The Chemours Company FC, LLC**
Facility Name: **Washington Works**
Business Unit: **Fluoropolymers**
Permittee Mailing Address: **P. O. Box 1217, Washington, WV 26181-1217**

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

Facility Location:	Washington, Wood County, West Virginia
Facility Mailing Address:	Building 1, Chemours Washington Works Washington, WV 26181-1217
Telephone Number:	(304) 863-4200
Type of Business Entity:	Corporation
Facility Description:	Chemical and Plastic Resins Manufacturing
SIC Codes:	2821, 2869, 2819
UTM Coordinates:	442.310 km Easting • 4,346.800 km Northing • Zone 17

Permit Writer: Jonathan Carney

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

1.1. Emission Units

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C1 Area				
C1FA	Cool Down Bin	1986	C1FEE	C1MI (Cyclone), C1MJ (Cyclone) & C1MIC (Bagfilter)
C1FB	Cool Down Bin	1986	C1FEE	C1MI (Cyclone), C1MJ (Cyclone) & C1MIC (Bagfilter)
C1FC	Cube Bin	2006	C1FCE	None
C1FD	Fluorine Trailor Unloading	1986	C1FEE	C1FEC - Scrubber
C1FE	South Fluorination Reactor	1986	C1FEE	C1FEC – Scrubber
C1FF	Heat Up Bin	1986	C1FFE	None
C1FG	Heat Up Bin	1986	C1FGE	None
C1FH	North Fluorination Reactor	2021	C1FEE	C1FEC - Scrubber
C1FK	Fluff Conveying-Isolation System	1996	C1FKE	C1FKC – Bag Filter
C1FQ	Reactor	1996	C1FQE	None
			T7IME	T7IMC – Thermal Converter
C1FR	Ingredient System	1996	C1FRE	None
C1FS	Dryer	1996	C1FSE	C1FSC1 – Baghouse C1FSC2 – Scrubber C1FSC3 – Scrubber C1FSC4 –Carbon Bed
C1FU	Bin	1996	C1FUE	None
C1FV	Extruder	1982	C1FVE1	None
	Gear Pump	2021	C1FVE2	None
C1FW	Ingredient System	1996	Area	None
			C1FWE	None
C1GA	Cube Bin	2006	C1GAE	None
C1GB	Cube Bin	2006	C1GBE	None
C1GC	Cube Bin	2006	C1GCE	None
C1GD	Tank	1996	C1GDE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C1GF	Isolation Filter	2005	C1GFE	C1GFC1 (Vacuum pumps) and C1GFC2 (Spray tower)
C1GG	Ammonium Hydroxide System	2005	C1GGE	None
C1GH	Ingredient System	1996	C1FQE	None
			T7IME	T7IMC – Thermal Converter
C1GJ	Flake Conveying System	1996	C1GJE	C1GJC – Bag Filter
C1GK	Sump	1996	Area	None
C1GL	Pellet Conveyor- both fluorinators	2021	C1FEE	C1MI (Cyclone), C1MJ (Cyclone) & C1MIC (Baghouse)
C1GN	Conveying System	1996	C1FEE	C1GNC1 – Baghouse C1GNC2 – Filter
C1GP	Conveying System	1996	C1GPE	C1GPC – Baghouse
C1GQ	Conveying System	1982	C1GQE	C1GQC1 – Bag Filter C1GQC2-Filter
C1GR	Cleaning Station	1982	C1GRE	None
C1GS	Blender	1988	C1GPE	C1GPC – Baghouse
C1GT	Blender	1988	C1GPE	C1GPC – Baghouse
C1GV	Hopper	1982	C1GVE	None
C1GW	Isolation Filtrate Collection Tank	2005	C1GWE	None
C1GX	VE Ingredient System	1996	C1GXE	None
C1GZ	Oven	2007	C1GZE	C1GZC – Vacuum Pump
C1MB	Tank	1996	C1MBE	None
C1ME	Vent Recovery System	2005	T7IME	T7IMC – Thermal Converter
C1MF	Central Vacuum System	1982	C1MFE	None
C1MG	Pellet Separation Cyclone	2021	C1MGE	C1MGC - Baghouse
C1MK	South Fluorination Room Ventilation	1986	C1FEE	None
C1ML	Metals Lab	2021	C1MLE	None
C1MM	Clean Room Vent	2021	C1MME	None
C1MN	F2 Trailer Unloading Ventilation	2014	C1MNE	None
C1MO	North Fluorination Room Ventilation	2021	C1MOE	None
C1NM	ACS Feed Tank	2005	C1NPE	C1NPC – Scrubber

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
CINP	Recovery System	2005	C1NPE	CINPC – Scrubber
C1NR	ACS Product Tank	2005	C1NPE	C1NPC – Scrubber
C1NPC	Scrubber	2005	CINPC	None
C1MG	Cyclone	2021	C1MGE	C1MGC(Baghouse)
C1NB	Tank	2023	C1NBE	None
C1NC	Tank	2023	C1NCE	None
C1ND	Ingredient System	2023	C1NDE	None
C1NE	Ingredient System	2023	C1NEE	None
C1NG, C1NH	Product System	2023	C1NGE	C1NGC Condenser
C1PA	Tank	2023	C1NGE	C1NGC Condenser
C1NF	Tank	2023	C1NFE	C1NFC Scrubber
C1PC, C1PD, C1PE, C1PF	Vacuum Pump	2023	C1PCE	C1PCC Vacuum Pump
C1PG, C1PB	Tank	2023	C1PGE	C1PGC1, C1PGC2, C1PGC3 Filter/Scrubber/Carbon Bed
C1PH	Receiver	2023	C1PHE	C1PHC Filter Receiver
C1PI	Hopper	2023	C1PIE	None
C1PK	Feeder	2023	C1PKE	None
C1PJ	Feeder	2023	C1PJE	None
C1PM	Hopper	2023	C1PME	None
C1PL	Process System	2023	C1PLE	C1PLC Filter
C1PN	Process System	2023	C1PNE	C1PNC Vacuum Pump
C1PU	Cleaning Station	2023	C1GRE	None
C1PO	Product System	2023	C1POE	None
C1PP, C1PQ, C1PR, C1PS	Bins	2023	C1PPE, C1PQE, C1PRE, C1PSE (combined)	None
C1PT	Tank	2023	C1PTE	None
C1QE	Container Loading	2023	C1QEE	None

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C2 Area				
C2DA	Tank	1982	C2DAE	None
C2DE	Tank	1982	C2DAE	None
C2DG	Reactor	2008	C2EJE	None
C2DH	Sparge Bin for extruded pellets	1996	C2DHE	None
C2DK	Process Tank	1996	C2DKE	C2DKC – Bag Filter
C2DO	Common Bag Filter	1998	C2EUE	C2EUC
C2DS	Conveying System	1989	C2DSE	C2DSC – Bag Filter
C2DW	Dryer	1982	C2DTE	C2DWC1 – Bag Filter C2DWC2 – Scrubber C2DTC3 – Scrubber
C2EC	Tank	1982	C2DAE	None
C2EF	Reactor	1998	C2EFE	None
C2EG	Process Equipment	1998	C2EGE	C2EGC – Bag Filter
C2EH	Dryer	1998	C2DTE	C2EHC1 – Bag Filter C2EHC2 – Scrubber C2DTC3 – Scrubber
C2EJ	Supply System	1988	C2EFE	None
			C2EJE	None
C2EN	Conveying System	1998	C2ENE	C2ENC – Bag Filter
C2ER	Extruder	1998	C2ERE	None
C2ES	Extruder	1998	T7IME	T7IMC – Thermal Converter
C2ET	Bin	1998	C2ETE	None
C2EU	Elutriator	1998	C2EUE	C2EUC – Bag Filter
C2EV	Packout	1998	C2EVE	None
C2EZ	Loading Station	2006	C2EZE	None
C2KD	Dryer	1998	C2KDE	None
C2KO	Process Equipment	1997	C2KOE1	C2KOC1 – Bag Filter
C2KP	Process Equipment	1998	C2KPE	C2KPC – Bag Filter
C2KU	Ingredient System	2005	C2KUE	None
C2KW	Feed Tank	2006	C2DAE	None
C2KX	Storage Tank	2006	C2DAE	None
C2KL	Additive Bag Dump Station	2018	C2KLE	C2KLC

Emission Unit ID	Emission Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C2EB1	Extruder	2018	C2EBE	C2EB1C / C2EB2C
C2EB2	Area Vent	2018	C2EBE	None
C2EA1	Primary Feed Hopper	2018	C2EBE	C2EA1C
C2EA2	Secondary Feed Hopper	2018	C2EBE	C2EA2C
C2KJ	Gala Dryer	2018	C2EBE	None
C2KN	Powder Feeder Blower	2018	C2KNE	C2KNC1 / C2KNC2
C3 Area				
C3HA	Tank	1992	C3HPE	None
C3HB	Tank	1992	C3HPE	None
C3HD	Tank	1993	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HG	Tank	1992	C3HG2E	None
			C3HGE	C3HGC – Scrubber
C3HH	Tank	1992	C3HGE	C3HGC – Scrubber
C3HI	Reactor	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C3HJ	Still Pot	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
			C3HPE	C3HPC - Scrubber
C3HK	Tank	1992	C3HPE	C3HPC – Scrubber
C3HL	Cylinder	1992	C3HPE	C3HPC – Scrubber
C3HM	Tank	1992	C3HPE	C3HPC – Scrubber
C3HN	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HO	Reactor	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HP	Cylinder	1992	C3HPE	C3HPC – Scrubber
C3HQ	Still Pot	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HS	Tank	1990	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3HT	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3HX	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3ID	Tank	1992	C3HPE	None
			T7IME	T7IMC - Thermal Converter
C3IE	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IF	Tank	1992	C3HPE	C3HPC – Scrubber
C3IG	Bulk Loading	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IH	Tank	1995	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3IJ	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
C3IK	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3IL	Tank	1992	C3HIE	None
			T7IME	T7IMC – Thermal Converter
C3IM	Tank	1992	C3IME	None
C3IN	Tank	1992	C3INE	None
C3IO	Tank	1992	C3IOE	None
C3IT	Tank	2001	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IV	Charge Pot	1992	C3HPE	C3HPC – Scrubber
C3IW	Pit	1992	Area	None
C3IX	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IY	Tank	1992	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3IZ	Tank	2004	C3HPE	None
			T7IME	T7IMC – Thermal Converter
C3JA	Filter	2007	C3IPE	None
			T7IME	T7IMC – Thermal Converter
C4 Area				
C4AA	Hopper	2024	C4AAE	C4AAC1 – Baghouse
C4AB	Hopper	2024	C4AAE	C4AAC1 – Baghouse
C4AC	Extruder	2024	C4ACE	None
C4AD	Treater	2024	C4ACE	None
C4AE	Cleaner	2024	C4AEE	C4AEC1 – Liquid Ring Vacuum Pump

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T1, T2, T3, T4, and T7 Areas				
T1BB	Compressor & Intercooler	1997	T7XIE	T7XIC – Scrubber
T1BC	Compressor & Intercooler	1987	T7XIE	T7XIC – Scrubber
T1BD	Compressor & Intercooler	1987	T7XIE	T7XIC – Scrubber
T1BE-BJ	Coolers	2000	T7XIE	T7XIC – Scrubber
T1BP-BT	Storage Tanks	1978	T7XIE	T7XIC – Scrubber
T1BW	Absorber	2001	T7IME	T7IMC – Thermal Converter
T1BX	Absorber	2001	T7IME	T7IMC – Thermal Converter
T1CA	Furnace	1994	T1CAE	None
			T7XIE	None
TICB	Furnace	1994	T1CBE	None
			T7XIE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T1CC	Furnace	1994	T1CCE	None
			T7XIE	None
T1CD	Furnace	2000	T1CDE	None
			T7XIE	None
T1CK, T1LA, T1CL	Aftercoolers	1999-2006	T7XIE	T7XIC - Scrubber
T1CU	Tank	1982	T7XIE	None
T1CV	Dryer	1997	T7IME	T7IMC – Thermal Converter
T1CW	Tank	1989	T7XIE	T7XIC – Scrubber
T1DB-DC	Dryers	1985	T7XIE	None
			T1DBE	None
T1DD-DF	Coolers	2000	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T1DG-DH	Bag Filters	2000	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
TIDI	Vaporizer	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T1DS	Snubber Tank & Compressor Inlet Piping	1997	T7XIE	T7XIC – Scrubber
T1DT	Spare Intercooler	1999	T7XIE	T7XIC – Scrubber
T1DU	Compress Area Common Hi-Press Piping	1997	T7XIE	T7XIC - Scrubber
			T7IME	T7IMC – Thermal Converter
T1EE	Analyzer Vents	1997-2006	T7XIE	None
T1EV	Shipping Trailers	1997	T7XIE	T7XIC – Scrubber
T1GN	Mixed Gas Holder	1985	T1GNE	None
T1JB	Raw Material Unloading	2007	T1JBE	None
T1LB-LE	Raw Material Storage	1955-1997	T7XIE	None
T1LF	Storage Tank & Vaporizer	1989	T2ERE	T2ERC – Scrubber
T1LH	Feed Pump	1997	T1LHE	None
T1LI	Feed Pump	1997	T1LIE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T1XA	Compressor	2000	T1XAE	None
			T7IME	T7IMC – Thermal Converter
			T7XIE	T7XIC - Scrubber
T1XC-C	Absorber	2001	T7IME	T7IMC – Thermal Converter
T1XD	Column	1997	T7XIE	T7XIC - Scrubber
			T7IME	T7IMC – Thermal Converter
T1XG	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T1XO	Column – Feed Condenser	1997	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2EN	Tank Car Loading	2005	T2ERE	T2ERC – Scrubber
T2EO-EP	Tanks	2005	T2ERE	T2ERC – Scrubber
T2ER	Storage Tanks	2005	T2ERE	T2ERC – Scrubber
T2ES	Air Stripper	1997	T2ERE	T2ERC – Scrubber
T2ET	HCl Aqueous Acid Tank #1	2015	T2ERE	T2ERC - Scrubber
T2EU	HCl Aqueous Acid Tank #2	2015	T2ERE	T2ERC - Scrubber
T2EX	Trailer Loading	2000	T2EXE	None
			T7IME	T7IMC – Thermal Converter
T2EY	Analyzer	2000	T2EYE	None
T2XH, T2XL	Cooler/Absorber	1997	T2ERE	T2ERC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2XJ	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T2XM	Column	1997	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2XN	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T2XQ	Vaporizer	1997	T7XIE	T7XIC – Scrubber
T2XS	Column Feed Cooler	1997	T7XIE	None
T2XT-XU	Adsorption Beds	1997	T2ERE	T2ERC – Scrubber
T2XV	Cooler Loop	1997	T7XIE	None
T3FB	Furnace	1997	T7XIE	None

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

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T7JD	Neutralization Tank	1986	T7JDE	T7JDC – Scrubber
T7JJ	Emergency Generator	2000	T7JJE	None
		T5 Area		
T5HA	Heater	1998	T5HAE	None
T5HB	Heater	1998	T5HBE	None
T5HC	Reactor	1992	Area	None
			T5HCE	None
			T5HCE2	None
T5HD	Reactor	1997	Area	None
			T5HDE	None
			T5HDE2	None
T5HF	Mix Station Fume Hood	NA	T5HFE	None
T5HG	Dryer	2001	T5HGE	T5HGC – Cyclone
T5HI	Dryer	2001	T5HIE	T5HIC – Cyclone
T5HN	Raw Material System	2001	Area	None
			T5HCE	None
T5HO	Tank	1989	Area	None
T5HP	Tank	1997	T5HCE T5HDE	None
T5HT	#1 Tank	1990	T5HTE T5HDE	None
T5HU	#2 Tank	1990	T5HUE T5HDE	None
T5HV	#3 Tank	1990	T5HVE T5HDE	None
T5HW	#4 Tank	1989	T5HCE	None
			T5HWE	None
T5HX	#5 Tank	1997	T5HDE	None
			T5HXE	None
T5HY	Tank	1995	T5HYE	None
T5HZ	Tank	1998	T5HZE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6 Area				
T5HM	Raw Material System	1990	T6IUE	None
T6IB	Reactor 6	1985	T6IBE	None
T6IC	Reactor 7	1985	T6ICE	None
T6ID	Reactor 8	1985	T6IDE	None
			T7IME	T7IMC – Thermal Converter
T6IE	Dryer 2	1993	T6IEE	None
			T6IZCE	T6IFC – Packed Bed Scrubber T6IZC – Deep Bed Filter
T6IF	Dryer 3	1989	T6IFE	None
			T6IZCE	T6IFC – Packed Bed Scrubber T6IZC – Deep Bed Filter
T6IG	#2 Float Tank	2001	T6IGE	None
T6IH	#3 Float Tank	1988	T6IGE	None
T6II	#1 Weigh Tank	1985	T6IBE	None
			T6IIE	None
T6IJ	#2 Weigh Tank	1985	T6ICE	None
			T6IJE	None
T6IK	#3 Weigh Tank	1985	T6IDE	None
			T6IKE	None
T6IL	#4 Weigh Tank	1985	T6ILE	None
			T6IUE	None
T6IU	Reactor 9	2000	T6IUE	None
			T7IME	T7IMC – Thermal Converter
T6IV	Dryer 1	2001	T6IZCE	T6IFC – Packed Bed Scrubber T6IZC – Deep Bed Filter
T6IW	#1 Float Tank	2000	T6PME	None
T6IX	#1 Chiller Cooler Vent	2001	T6IXE	None
T6IY	#3 Chiller Cooler Vent	1989	T6IYE	None
T6IZ	Accumulator Vent	NA	T6IZE	None
T6JE	Ingredient Tank	1988	T6JEE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6JF	Ingredient Tank	NA	T6JFE	None
T6PA	Head Tank	1988	T6PAE	None
T6PB	Feed System	1985	T6IBE	None
			T6ICE	None
			T6IDE	None
			T6IUE	None
T6PC	Decanter 6	1988	T6PCE	None
T6PD	Decanter 7	1986	T6PDE	None
T6PE	Decanter 8	2000	T6PEE	None
T6PF	Decanter 9	2000	T6PFE	None
T6PG	Stabilization Tank #3	1985	T6PGE	None
T6PH	Stabilization Tank #4	1985	T6PGE	None
T6PI	Feed System	2001	Area	None
			T6IBE	None
			T6ICE	None
			T6IDE	None
			T6IUE	None
		2022	T6PIE	None
T6PJ	Raw Material Feed System	2001	Area	None
			T6IBE	None
			T6ICE	None
			T6IDE	None
			T6IUE	None
T6PK	Stabilization Tank	NA	T6PGE	None
T6PL	Process Tank	1998	T6PGE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6PM	Process Tank	2001	T6PME	None
T6PN	Process Tank	2001	T6PNE	None
T6PO	Storage Tank	2001	T6POE	None
T6PP	Storage Tank	2001	T6PPE	None
T6PQ	Formulation Tank	2001	T6PQE	None
T6PR	Fresh Tank	1994	T6PRE	None
T6PS	Melt Tank	2001	T6PSE	None
T6PT	Decanter	1997	Area	None
T6PU	Process Tank	2000	T6PUE	None
T6PV	Process Tank	NA	T6PVE	None
T6PW	Process Tank	1993	T6PWE	None
T6PX	Process Tank	1988	T6PXE	None
T6PY	Supernate Tank	NA	T6PYE	None
T6PZ	Process Tank	1998	T6PZE	None
T6QA	Ion Exchange Columns	2006	T6QAE	None
T6QB	Ion Exchange Columns	2006	T6QBE	None
T6QE	Ion Exchange Columns	2006	T6QEE	None
T6QF	Ion Exchange Columns	2006	T6QFE	None
T6QG	Feed Tank	2006	T6PGE	None
T6QH	Feed Tank	2006	T6PGE	None
T6QI	Knockout Pot	1985	Area	None
T6QJ	#6 Tank	1985	T6IBE	None
T6QK	#7 Tank	1985	T6ICE	None
T6QL	#8 Tank	1985	T6IDE	None
T6QM	#9 Tank	1992	T6IUE	None
T6QN	Blend Tank #1	1985	T6QNE	None
T6QO	Blend Tank #2	1985	T6QOE	None
T6QP	Blend Tank #3	1986	T6QPE	None
T6QQ	Blend Tank #4	1986	T6QQE	None
T6QR	Blend Tank #5	2000	T6QRE	None
T6QS	Blend Tank #6	2000	T6QSE	None
T6QT	Blend Tank #7	2000	T6QTE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6QU	Ingredient Tote #1	NA	T6QUE	None
T6QV	Ingredient Tote #2	NA	T6QVE	None
T6QW	Recovered Ingredient Feed Tank #1	2002	T6QWE	None
T6QY	Recovered Ingredient Feed Tank #2	2002	T6QYE	None
T6QZ	Recovered Ingredient Storage Tank	2002	T6QZE	None
T6RA	Filters	2000	T6RAE	None
T6RB	Reactor Waste Solids Drum	NA	T6RBE	None
T6RC	Coagulator #1	1999	T6RCE	None
T6RD	Coagulator #2	1988	T6RDE	None
T6RE	Coagulator #3	1988	T6REE	None
T6RF	Conveyor #1	2001	T6RFE	None
T6RG	Conveyor #2	1993	T6RGE	None
T6RH	Conveyor #3	1989	T6RHE	None
T6RI	FP Packout	1993	T6RIE	None
T6RJ	Packout Tank #1	2001	T6RJE	None
T6RK	Packout Tank #2	2001	T6RKE	None
T6RL	Ingredient Tank #1	1986	T6RLE	None
T6RM	Ingredient Tank #2	1986	T6RME	None
T6RN	Ingredient Tank #3	1986	T6RNE	None
T6RO	Ingredient Tank #4	1986	T6ROE	None
T6RP	Ingredient Tank #5	1986	T6RPE	None
T6RQ	Ingredient Tank #6	1986	T6RQE	None
T6RR	Ingredient Tank #7	2000	T6RRE	None
T6RS	Ingredient Tank #8	2000	T6RSE	None
T6RT	Ingredient Tank #9	2000	T6RTE	None
T6RU	Ingredient Tank #10	2000	T6RUE	None
T6RV	Ingredient Tank #11	1986	T6RVE	None
T6RW	Ingredient Tank #12	1986	T6RWE	None
T6RX	Ingredient Tank #13	1986	T6RXE	None
T6RY	Ingredient Tank #14	1986	T6RYE	None
T6RZ	Ingredient Tank #15	1986	T6RZE	None
T6SA	Ingredient Tank #16	1986	T6SAE	None

Emission Unit ID	Emissions Unit Description	Year Installed/ Modified	Emission Point ID	Control Device
T6SB	WIT Tank	NA	T6SBE	None
T6SC	Cylinder Feed System	NA 2022	T6SCE	None
T6SD	Reactor Knockout	1985-2000	T6SDE	None
T6SE	Ingredient Truck Uploading Area	NA	T6SEE	None
T6SJ	Solids-Liquids Separation Tank	2015	T6SJE	None
T6SK	Cooling Tower	2021	T6SKE	None
T6SL	Container Loading	2022	T6SLE	None
Mineral Spirits Parts Washers				
C1LD	Parts Washer	2010	C1LDE	None
T1JG	Parts Washer	NA	T1JGE	None

1.2. Active R13, R14, and R19 Permits

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

Area	Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
All	R13-3223	December 8, 2014	NA
C1	R13-2365T	November 16, 2023	NA
C2	R13-1953M	October-26, 2023	NA
C3	R13-2391I	August 7, 2015	NA
C4	R13-3645	March 12, 2024	NA
T1, T2, T3, T4, and T7	R13-1823Q	February 6, 2024	NA
T5	R13-1353I	March 13, 2019	NA
T6	R13-0815N	March 17, 2023	NA

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 other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

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

2.2. Acronyms

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

2.3. Permit Expiration and Renewal

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

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

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

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

2.4. Permit Actions

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

2.5. Reopening for Cause

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

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

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

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

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

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

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

2.7. Minor Permit Modifications

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

2.8. Significant Permit Modification

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

2.9. Emissions Trading

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

2.10. Off-Permit Changes

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

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

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

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

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

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

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

[45CSR§30-5.9.]

2.11. Operational Flexibility

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

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

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

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

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

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.40]

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. Reserved

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.]

2.23. Severability

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

2.24. Property Rights

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

2.25. Acid Deposition Control

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

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

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

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

[45CSR§30-5.1.d.]

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

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

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

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

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

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

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

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

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

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

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

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

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

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

3.1.9. **Fugitives.** No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1.; 45CSR13, R13-2365, 5.1.1.; 45CSR13, R13-1953, 4.1.18; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, 5.1.6; 45CSR13, R13-3645, 5.1.1]**

3.1.10. **Fugitives.** The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. **[45CSR§7-5.2; 45CSR13, R13-2365, 5.1.1.; 45CSR13, R13-1953, 4.1.19; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, 5.1.1; 45CSR13, R13-3645, 5.1.1]**

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

3.1.12. Reserved.

3.1.13. Reserved

3.1.14. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. **[45CSR§7-4.12; 45CSR13, R13-2365, 5.1.1.; 45CSR13, R13-1953, 4.1.17; 45CSR13, R13-2391, B.8; 45CSR13, R13-1823, 4.3.4.; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, 5.1.5; 45CSR13, R13-3645, 5.1.1]**

3.1.15. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. **[45CSR§7-9.1; 45CSR13, R13-2365, 5.1.1.; 45CSR13, R13-1953, 4.1.20; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, 5.1.1; 45CSR13, R13-3645, 5.1.1]**

3.1.16. **45CSR21.** The permittee shall comply with all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points identified in Attachment A of Permit R13-3223 (Appendix E of this Permit).

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, ~~and~~ R13-0815, and R13-3645, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-3223, 4.1.1; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]

3.1.17. **45CSR21.** The permitted sources identified in Appendix E and recognized as being subject to 45CSR21 shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix E, are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following: **[45CSR13, R13-3223, 4.1.2; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2; 45CSR13, R13-3645, 6.1.1]**

3.1.17.1. The permittee shall maintain the aggregated hourly and annual VOC control efficiency of 90% or greater, on a site-wide basis, for all existing sources listed or required to be listed as part of the original facility-wide Reasonably Available Control Measures (RACM) plan, as identified in Appendix E. **[45CSR13, R13-3223, 4.1.2.1; 45CSR§21-40.3.a.1 (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2; 45CSR13, R13-3645, 6.1.1]**

3.1.17.2. On or after May 1, 1996, construction or modification of any emission source resulting in a maximum theoretical emissions (MTE) of VOCs equaling or exceeding six (6) pounds per hour and not listed or required to be listed in the facility-wide RACM plan shall require the prior approval by the Director of an emission control plan that meets the definition of reasonable available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All sources constructed or modified on or after May 1, 1996 shall be subject to the following: **[45CSR13, R13-3223, 4.1.2.2; 45CSR§21-40.3.c (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-3223, 4.1.2.2.a; 45CSR§21-40.4.e (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

b. The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 3.1.17.1. **[45CSR13, R13-3223, 4.1.2.2.b; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

3.1.17.3. If a modification to an existing source with current MTE below the threshold of six (6) pounds per hour of VOCs causes an increase in the MTE that results in the source exceeding the six (6) pounds per hour threshold for the first time, the source shall be subject to RACT in accordance to

Section 3.1.17.2. **[45CSR13, R13-3223, 4.1.2.3; 45CSR§21-40.3.c (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2; 45CSR13, R13-3645, 6.1.1.a]**

3.1.17.4. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed as part of the facility-wide RACM plan, that results in an increase in VOC emissions of any amount, shall require the prior approval by the Director of an emission control plan that meets the definition of RACT on a case-by-case basis for both fugitive and non-fugitive VOC emissions from the source. All sources modified on or after May 1, 1996 shall be subject to the following; **[45CSR13, R13-3223, 4.1.2.4; 45CSR§21-40.3.c (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

a. The RACT control plan (s) shall be embodied in a permit in accordance to 45CSR13. **[45CSR13, R13-3223, 4.1.2.4.a; 45CSR§21-40.4.e (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

b. The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s). **[45CSR13, R13-3223, 4.1.2.4.b; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

c. The MTE and associated emission reductions of the modified source shall be recalculated as part of the site-wide aggregate hourly and annual emissions reduction requirements to demonstrate compliance with the minimum 90% reduction rate as set forth in 3.1.17.1 of this permit. **[45CSR13, R13-3223, 4.1.2.4.c; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

3.1.17.5. In the event the facility-wide RACM plan is modified to delete an existing emission source, and any associated pollution control equipment, due to the source being permanently removed from service or reassigned to service not subject to the requirements of 45CSR§21-40, the MTE shall be recalculated to demonstrate that the 90% facility-wide VOC reduction requirement set forth in Section 3.1.17.1 is still being met. In the event such a modification results in the site-wide aggregate hourly and annual emissions reduction being recalculated to a rate less than 90%, the RACM plan shall be revised to include all new and/or modified sources and their associated control technologies constructed on or after May 1, 1996, in order to meet the requirements set forth in 3.1.17.1. **[45CSR13, R13-3223, 4.1.2.5; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

3.1.17.6. In the event a source and associated emission point identified in Appendix E is subject to the New Source Performance Standards (NSPS) of 40 C.F.R. 60, the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40 C.F.R. 61, or the Maximum Achievable Control Technology (MACT) standards of 40 C.F.R. 63, then compliance with such requirements as defined in the affected 45CSR13 permit shall demonstrate compliance with the RACT requirements set forth in R13-3223. **[45CSR13, R13-3223, 4.1.2.6; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]**

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, ~~and~~ R13-0815, and R13-3645, and the Attachment A listing only for those

sources in the Fluoropolymer Production Area is provided in Appendix E.

3.1.18. **45CSR27.** The permitted sources identified in Appendix E and recognized as being subject to 45CSR27 shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix E are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following: **[45CSR13, R13-3223, 4.1.3; 45CSR13, R13-1823, 4.1.25]**

3.1.18.1. The permittee shall employ the best available technology (BAT) for the purpose of reducing toxic air pollutants (TAP) associated with the applicable sources and emission points identified in Appendix E. **[45CSR13, R13-3223, 4.1.3.1; 45CSR§27-3.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]**

3.1.18.2. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routing leakage from those sources and their associated equipment identified in Appendix E as operating in TAP service. **[45CSR13, R13-3223, 4.1.3.2; 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]**

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

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

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

[45CSR13, R13-3223, 4.1.4; 45CSR§27-3.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]

3.1.20. Reserved.

3.1.21. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Appendix E and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-3223, 4.1.5; 45CSR13, R13-1953, 4.1.23; 45CSR13, R13-1823, 4.1.26; 45CSR13, R13-0815, 4.1.9; 45CSR13, R13-3645, 4.1.7]**

3.1.22. The Permittee shall not purchase, manufacture, store, or use Ammonium Perfluorooctanoate (APFO) for commercial or non-analytical purposes within the Chemours' Washington Works Facility. The facility may purchase, store, or use APFO for compliance or analytical investigative purposes at the Washington Works facility.
[45CSR13, R13-2365, 4.1.4; 45CSR13, R13-1953, Condition 4.1.5; 45CSR13, R13-1823, Condition 4.1.3; 45CSR13, R13-1353, Condition A.7; 45CSR13, R13-0815, Condition 4.1.6; 45CSR13, R13-3645, 4.1.5]

3.1.23. In accordance with the provisions of the Consent Decree in U.S. v. E.I. DuPont De Nemours And Company, Civil Action No. 6:13-cv-27030 (S.D. W.Va.), including the definition in Paragraph 7 of the Consent Decree where applicable, Chemours shall do the following.

a. Maintain the LDAR Manual as required by Paragraph C of Attachment A of the above referenced Consent Decree.

b. Review the LDAR Manual annually and update as needed as stated in Paragraph G of Attachment A of the above referenced Consent Decree.

c. Adhere to the Enhanced LDAR Program (ELP), specifically referenced in Section I of Attachment B of the above referenced Consent Decree.

[45CSR§13-5.10.; 45CSR13, R13-1823, 4.1.27]

3.2. Monitoring Requirements

3.2.1. Reserved.

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

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

[45CSR13, R13-3223, 4.2.1; 45CSR§21-40.3.a.2 (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2; 45CSR13, R13-3645, 6.1.1.b]

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

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

[45CSR13, R13-3223, 4.2.2; 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-1823, 4.1.25]

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

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, ~~and~~ R13-0815, and R13-3645, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-3223, 4.2.3; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]

3.3. Testing Requirements

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

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

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

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

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

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

[45CSR13, R13-3223, 4.3.1; 45CSR§21-40.3.a.2 (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2; 45CSR13, R13-3645, 6.1.1.c]

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

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, ~~and~~ R13-0815, and R13-3645, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-3223, 4.3.2; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]

3.4. Recordkeeping Requirements

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

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-3223, 4.4.1; 45CSR13, R13-1953, 4.4.1; 45CSR13, R13-1823, 4.4.1; 45CSR13, R13-2365, 4.4.2; 45CSR13, R13-0815, 4.4.1; 45CSR13, R13-3645, 4.4.2]

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

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

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

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

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

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

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

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

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

[45CSR13, R13-3223, 4.4.3; 45CSR13, R13-1823, 4.4.3; 45CSR13, R13-1953, 4.4.3; 45CSR13, R13-2365, 4.4.4; 45CSR13, R13-0815, 4.4.3; 45CSR13, R13-3645, 4.4.4]

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

Note: For the Fluoropolymer Production Area, the affected permits are R13-2365, R13-1953, R13-2391, R13-1823, R13-1353, ~~and~~ R13-0815, and R13-3645, and the Attachment A listing only for those sources in the Fluoropolymer Production Area is provided in Appendix E.

[45CSR13, R13-3223, 4.4.4; 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2; 45CSR13, R13-3645, 6.1.1.d]

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

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

[45CSR13, R13-3223, 4.4.5; 45CSR13, R13-1823, 4.1.25]

3.4.9. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. **[45CSR13, R13-1953, 4.4.2; 45CSR13, R13-1823, 4.4.2; 45CSR13, R13-3223, 4.4.2; 45CSR13, R13-2365, 4.4.3; 45CSR13, R13-0815, 4.4.2; 45CSR13, R13-3645, 4.4.3]**

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

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

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

[45CSR34; 40 C.F.R. §63.7881(c)]

3.4.11. **40 C.F.R. 63, Subpart DDDDD.** The permittee shall keep the records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Each record will be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. Each record will be kept on site, or accessible from on site, for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records may be kept off site for the remaining 3 years
[40 C.F.R. §§ 63.7560(a),(b),(c); 45 CSR 34 (T1CA, T1CB, T1CC, T1CD, T5HA, and T5HB)]

3.5. Reporting Requirements

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

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

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:	**US EPA:**
Director WVDEP Division of Air Quality 601 57th Street SE Charleston, WV 25304	Section Chief U. S. Environmental Protection Agency, Region III Enforcement and Compliance Assurance Division Air, RCRA and Toxics Branch (3ED21) Four Penn Center 1600 John F. Kennedy Boulevard Philadelphia, PA 19103-2852

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov
[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8. **[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. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:	**US EPA:**
DEPAirQualityReports@wv.gov	R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31.

All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:

DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

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. **Reserved**.

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 email. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

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

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

[45CSR§30-5.1.c.3.C.]

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

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

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

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

[45CSR13, R13-3223, 4.5.1; 45CSR§40.4.c.1 (State-Enforceable only); 45CSR13, R13-2365, 6.1.1; 45CSR13, R13-1953, 4.1.21; 45CSR13, R13-2391, B.6; 45CSR13, R13-1823, 4.1.24; 45CSR13, R13-1353, B.7; 45CSR13, R13-0815, 5.1.6.1 and 5.1.6.2]

3.6. Compliance Plan

3.6.1. None

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 Chemours 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, Chemours is not subject to the leak detection and repair requirements of 40 C.F.R. 63, Subpart EEEE.

4.0 Source-Specific Requirements [C1 Area]

4.1. Limitations and Standards

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

Table 4.1.1 - Emission Limits

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
C1FCE	C1FC (bin)	N/A	PM_{10}[2] VOC[2]	0.08 0.23	0.07 0.50
C1GAE	C1GA (bin)	N/A			
C1GBE	C1GB (bin)	N/A			
C1GCE	C1GC (bin)	N/A			
C1FEE	C1FA (bin) C1FB (bin)	C1MI/C1MJ/ C1MIC (cyclone/bagfilter)	PM_{10}[1] HF	0.27 0.01	0.83 0.02
	C1FD (supply cylinder)	C1FEC (scrubber)			
	C1FE (reactor)				
	C1FH (reactor)				
	C1GN (cube conveyor: C1GN to C1FA & C1FB)	C1GNC1 (baghouse) C1GNC2 (baghouse)			
C1FFE	C1FF (bin)	N/A	PM_{10} VOC	0.54 0.12	0.83 0.18
C1FGE	C1FG (bin)	N/A	PM_{10} VOC	0.54 0.12	
C1FQE	C1FQ (reactor) C1GH (ingredient feed system)	N/A	VOC ODC Acetonitrile	38.54 0.93 0.01	25.88 0.06 0.01
C1FSE	C1FS (dryer)	C1FSC1 (baghouse) C1FSC2 (scrubber) C1FSC3 (scrubber) C1FSC4(scrubber)	PM_{10} VOC	0.01 1.08	0.02 4.10
	C1FK (conveying system)	C1FKC (baghouse)			
C1FUE	C1FU (bin)	N/A	PM_{10}	0.20	0.32
C1FVE1	C1FV (extruder)	N/A	VOC PM_{10}[1]	0.14 0.08	0.04 0.35
C1FVE2	C1FV (melt Gear pump with die plate)	N/A	VOC HF	0.43 1.00	0.11 0.11
C1FWE	C1FW (ingredient feed system)	N/A	VOC	32.2	0.35
			Acetonitrile	< 0.01	< 0.01

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
C1GDE	C1GD (tank)	N/A	VOC ODC Acetonitrile PM_{10}	1.89 0.08 0.01 0.50	2.97 0.01 0.01 0.79
C1GJE	C1GJ (conveying system)	C1GJC (baghouse)	PM_{10}	0.87	0.11
area emissions	C1GK (sump) CIFW (ingredient feed system)	N/A	VOC ODC Acetonitrile	1.94 0.08 0.01	0.21 0.01 0.01
C1GPE	C1GP (conveying system) C1GS (blender #1) C1GT (blender #2)	C1GPC (baghouse)	PM_{10}	0.07	0.19
C1GQE	C1GQ (conveying system)	C1GQC1 (baghouse) C1GQC2(filter)	PM_{10}	0.10	0.13
C1GVE	C1GV (hopper)	N/A	PM_{10}	0.20	0.32
C1GXE	C1GX (ingredient system charge pot)	N/A	VOC	1.89	0.31
C1GZE	C1GZ (oven)	C1GZC (vacuum pump)	VOC	0.51	0.18
			Hydrofluoric Acid	< 0.01	< 0.01
			PM_{10}	< 0.01	< 0.01
			CO	0.01	0.01
C1MBE	C1MB Tank	None	VOC	0.01	0.01
C1MGE	C1MG (Cyclone)	C1MGC(Baghouse)	PM_{10}	0.01	0.01
C1MLE	Analysis Lab	N/A	NO_x	0.02	0.01
			HF	0.11	0.03
C1NBE	Tank	N/A	VOC	0.34	1.51
C1NCE	Tank	N/A	VOC	0.34	1.51
C1NFE	Nitric Acid Tank	Scrubber	Nitric Acid	1.02	0.01
C1NGE	Product System	Condenser	HC	0.7	0.74
C1PGE	Tank	Filter/Scrubber/Carbon Bed	VOC	0.56	2.46
			HC	0.17	0.74
			Nitric Acid	0.03	0.11
			PM_{10}	0.01	0.02
C1PHE	Receiver	Filter Receiver	PM_{10}	0.05	0.19
C1PIE	Hopper	None	PM_{10}	0.08	0.32
C1PME	Hopper	None	PM_{10}	0.02	0.06
C1PNE	Process System	Vacuum Pump	HF	0.99	0.11
			VOC	0.57	0.15
			PM_{10}	0.05	0.22

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				pph	tpy
C1GRE	Cleaning Station	None	HF	1.32	1.71
			VOC	0.02	0.02
C1POE	Product System	None	VOC	0.04	0.17
			PM_{10}	0.10	0.38
			$PM_{2.5}$	0.17	0.77
C1PPE, C1PQE, C1PRE, C1PSE (combined)	Bins	None	VOC	0.19	0.36
			PM_{10}	0.14	0.28
			$PM_{2.5}$	0.40	0.77
C1QEE	C1QE/Container Loading	None	VOC	0.41	0.72
C1PTE	Tank	None	VOC	4.6E-5	4.7E-5
			HC	4.8E-3	4.9E-3
			Nitric Acid	8.0E-3	8.2E-3
			Ammonium Hydroxide	7.0E-6	7.2E-6
C1PLE	Process System	Filter	PM	1.0E-3	7.6E-4
C1PCE	Vacuum Pump	C1PCC Vacuum Pump	VOC	3.8E-3	1.7E-2
			HC	7.7E-3	3.4E-2
			Nitric Acid	5.5E-5	2.4E-4
C1NFE	Tank	Scrubber	Nitric Acid	0.26	7.8E-4
C1NPE	ACS Feed Tank	C1NPC Scrubber	VOC	0.57	3.71

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] 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.
[2] Limits shown are totals for all four cube bins

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points C1FCE, C1GAE, C1GBE, C1GCE, C1FEE, C1FFE, C1FGE, C1FSE, C1FUE, C1FVE1, C1GDE, C1GJE, C1GPE, C1GQE, C1GVE, G1GZE, ~~and~~ C1MGE, C1PGE, C1PHE, C1PIE, C1PME, C1PNE, C1POE, C1PPE, C1PQE, C1PRE, C1PSE and C1PLE and the less stringent 45CSR§7-4.2 nitric acid emission limits for emission points C1NFE, C1PCE, C1PGE, and C1PTE.
[45CSR13, R13-2365, 4.1.1 and 5.1.1; 45CSR§§7-4.1. and 4.2.]

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

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, 4.1.3]**

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

Identification Number	Description
C1FR	Coagulant System

[45CSR13, R13-2365, 4.1.7]

4.1.5. Compliance with all annual emission and/or operating limits shall be determined using a twelve (12) month rolling total. A twelve month rolling total shall mean a sum of any given month of the previous twelve (12) consecutive calendar months. **[45CSR13, R13-2365, 4.2.2]**

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. *(C1FCE, C1GAE, C1GBE, C1GCE, C1FEE, C1FFE, C1FGE, C1FSE, C1FUE, C1FVE1, C1GDE, C1GJE, C1GPE, C1GQE, C1GVE, C1GZE, C1MGE, C1PGE, C1PHE, C1PIE, C1PME, C1PNE, C1POE, C1PPE, C1PQE, C1PRE, C1PSE, C1PLE)* **[45CSR13, R13-2365, 5.1.1; 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. *(C1FCE, C1GAE, C1GBE, C1GCE, C1FEE, C1FFE, C1FGE, C1FSE, C1FUE, C1FVE1, C1GDE, C1GJE, C1GPE, C1GQE, C1GVE, C1GZE, C1MGE C1PGE, C1PHE, C1PIE, C1PME, C1PNE, C1POE, C1PPE, C1PQE, C1PRE, C1PSE, C1PLE)* **[45CSR13, R13-2365, 5.1.1; 45CSR§7-3.2.]**

4.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment in Section 1.0 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 regulations, or alternative control plan approved by the Secretary. **[45CSR§13-5.10; 45CSR13, R13-2365, 4.1.11]**

4.2. Monitoring Requirements

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

Monitoring shall be conducted at least once per month. 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 1 minute to determine if there is a visible emission. For observations for visible emissions from emission point C1FSE (which follows a water scrubber), when condensed water vapor is present within the plume as it emerges from the emission outlet,

opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible; the observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

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

[45CSR13, R13-2365, 4.2.1]

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

Table 4.2.2.a - Process Monitoring and Interlock Settings

Control Device ID	Description	Compliance Monitoring & Interlock Settings
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" and "C1FH" shall shut down. Due to the fact that the liquid recirculating flow does not totally define the level of efficiency being maintained by the control equipment, other parameters such as liquid temperature, KOH concentration, and pressure drop are also required to be measured as specified in the parametric monitoring section of this permit.
C1FKC	Isolation Conveying System Bag Filter	The bagfilter shall have a low delta P interlock set at 1" w.c. to detect bag failure, which shuts the system down. A high delta P alarm be set at 12" w.c. to monitor for restricted or overloaded bags.
C1FSC2	Dryer Scrubber	This scrubber shall be interlocked to shut down the feed to the dryer if the pressure drop across the 1 micron filter in the recirculating liquid line exceeds 40 psig. The feed to the dryer shall also be interlocked to shut off, if the exiting gas temperature exceeds 80°C under normal operation, or above 85°C during the first two hours of start-up from the introduction of fresh polymer into the dryer.
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. The facility may use the injection of steam to add moisture and prevent icing in cold weather.
C1FSC4	Carbon Adsorption Beds	The relative humidity of the stream entering the carbon adsorption beds shall be <60% when online. If 60% is exceeded for 5 minutes, the dryer feed will be interlocked off to maintain adequate capture. Relative humidity is tracked either via a humidity sensor or psychometric tables for inlet and outlet temperatures of the heater prior to the carbon beds.

Control Device ID	Description	Compliance Monitoring & Interlock Settings
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 inches Hg then the relevant blower and conveying system shall shut down.
C1GQC1/C1GQC2	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 inches Hg then the relevant blower and conveying system shall shut down.
C1GZC	Spray Tower with Vacuum Pump	If water flow to the vacuum pump is ≤ 2 gallons per minute, the heaters will automatically shut down.
C1MGC	Bag Filter	Air/fines stream is filtered with the fines collected in a waste drum, and the air vented continuously.
C1NFC	Scrubber	Feed to C1NF shall be interlocked off if C1NFC level is low while filling C1NF.
C1NGC	Condenser System	The condenser vent valve shall not open under normal operation if the cooling supply temperature is greater than -30 degrees Celsius.
C1PGC1/C1PGC2	Filter/Scrubber	Scrubber shall be interlocked to shut down the feed to the dryer if the pressure drop across the filter in the recirculating liquid line exceeds 40 psig. The feed to the dryer shall also be interlocked to shut off if there is no water flow to the scrubber.

Note: 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.

Table 4.2.2.b - Parametric Monitoring of Control Equipment

Control Device ID	Description	Monitoring Parameter
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. KOH solution shall be sampled at least once per day when fluorinating and KOH concentration of the sample measured in an on-site analytical laboratory. The solution can only be recharged twice before having to be replaced. The number of batches through the combination of the C1FE reactor and C1FH reactor that are vented to C1FEC shall be documented to coincide with the KOH measurement frequency.
C1FEC	Reactor Scrubber	Min. Recirculating KOH flow (gpm)
C1FSC2	Dryer Scrubber	Maximum Circulating Filter Delta P (psig)
C1FSC2	Dryer Scrubber	Min. Exit Gas Temperature (°C)
C1FSC3	Dryer Scrubber	Min. Water Flow (gpm)
C1FSC4	Carbon Adsorption Beds	Carbon Bed Online Time
C1FKC	Conveying System Bag Filter	Min. Bagfilter Delta P (in. H_20)
C1GJC	Conveying System Bag Filter	Min. Blower Suction Press – C1GJC (in. Hg)
C1GQC1	Conveying System Bag Filter	Min. Blower Suction Press – C1GQC1 (in. Hg)
C1GQC2	Conveying System Bag Filter	Visible Emissions Observation (like Method 22)
C1GZC	Spray Tower with Vacuum Pump	Gallons per minute
C1NGC	Condenser System	Maximum cooling supply temperature when vent valve is open
C1PGC1/C 1PGC2	Scrubber	Maximum circulating filter delta P(psig); Minimum total water flow to Scrubber(gallons per minute)
C1PGC3	Adsorption Carbon Beds	Maximum and Minimum delta P across beds
C1PHC	Baghouse	Visible Emissions Observation (like Method 22) while the stack is running
C1PLC	Baghouse	Visible Emissions Observation (like Method 22) while the stack is running
C1NFC	Scrubber	Minimum scrubber level while filling C1NF

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, 4.2.3, 40 C.F.R.§63.994(c)(1)(ii), 40 C.F.R. §63.2450(k)(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) within ninety (90) days of the date the 60-minute average production rate exceeds 120% of the rate demonstrated during the most recent test.

This test shall be performed at the maximum 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, 4.3.1]

4.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. **[45CSR13, R13-2365, 5.1.1; 45CSR§7-8.1]**

4.3.3. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions. **[45CSR13, R13-2365, 5.1.1; 45CSR§7-8.2]**

4.4. Recordkeeping Requirements

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

4.4.2. The permittee shall maintain and operate all baghouses, scrubbers, and any other air emissions control devices installed at the C1 Area in accordance with proper operational guidelines to minimize emissions. For all baghouses, scrubbers, and any other air emissions control devices installed in the C1 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, C1GQC1, C1GQC2, C1GPC, C1MGC, C1PHC, C1PLC, and C1PGC1; scrubbers C1FSC2, C1FSC3, C1FSC4, C1FEC, C1NPC, C1PGC2, C1NFC, and C1PNC; condenser system C1NGC; other collectors C1PCC; adsorption system carbon beds C1PGC3.

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, 4.1.6]

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, 4.4.1]**

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

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

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

[45CSR13, R13-2365, 4.1.9 and 4.2.4]

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, 4.1.10]**

4.5. Reporting Requirements

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

Identification Number	Description
C1GJ	Conveying to packout

[45CSR13, R13-2365, 4.1.8]

4.6. Compliance Plan

4.6.1. None

5.0 Source-Specific Requirements [C2 Area]

5.1. Limitations and Standards

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

Table 5.1.1 - PM_{10} Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DSE	C2DS	0.08	0.01
C2DTE	C2DW, C2EH	0.48	1.03
C2ENE	C2EN	0.56	1.69
C2ERE	C2ER	1.00	3.42
C2KPE	C2KP	0.10	0.17
C2DKE	C2DK	0.01	0.01
C2EGE	C2EG	0.01	0.01
C2EUE	C2DO, C2EU	0.02	0.02
C2KLE	C2KL	0.01	0.01
C2KNE	C2KN	0.01	0.01
C2EBE	C2EA1, C2EA2, C2KJ, C2EB1, C2EB2	0.02	0.09
C2DHE	C2DH	0.01	0.04

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 C2DSE, C2DTE, C2ENE, C2ERE, C2KPE, C2DKE, C2EGE, C2EUE, C2KLE, C2EBE, and C2DHE.

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

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

Table 5.1.2. - VOC Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX	11.90	2.10
C2DKE	C2DK	6.30	5.51
C2DTE	C2DW, C2EH	1.10	3.31
C2EFE	C2EF, C2EJ	75.10	7.51
C2EGE	C2EG	9.40	11.60
C2EJE	C2EJ, C2DG	107.19	3.60
C2ERE	C2ER	4.00	10.50
C2ETE	C2ET	3.25	11.16
C2EVE	C2EV	67.69[1]	0.33

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2KDE	C2KD	0.18	0.56
C2KOE1	C2KO	0.05	0.04
C2DHE	C2DH	0.11	0.49
C2EBE	C2EB2	0.06	0.03

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

[1] Emission limit in pounds per month.

[45CSR13, R13-1953, 4.1.2]

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

Table 5.1.3. - HF Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C2DHE	C2DH	0.03	0.01
C2ERE	C2ER	0.04	0.13
C2ETE	C2ET	0.02	0.06
C2KDE	C2KD	0.06	0.18
C2KOE1	C2KO	0.02	0.02
C2KUE	C2KU	0.16	0.01
C2EBE	C2EA1, C2EA2	0.03	0.10

Note 1: For cases where multiple sources vent to a single emission point, the emission limit of the single emission point shall apply to the combined sum of emissions from each of the associated sources.
Note 2: In-process emissions of fluorine and fluorinated compounds that react to form hydrogen fluoride have been reported as hydrogen fluoride.

[45CSR13, R13-1953, 4.1.3]

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

Table 5.1.4. - HAP Emission Limits

Emission Point ID	Source ID	Pollutant	Emission Limit (tpy)
C2EFE	C2EF, C2EJ	Total HAPs[1]	0.01
C2EJE	C2DG, C2EJ	Total HAPs[1]	0.01
C2EVE	C2EV	Total HAPs[1]	0.01
C2DHE	C2DH	Total HAPs[1]	0.06
C2EBE	C2EA1, C2EA2	Total HAPs[1]	0.10

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

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

[45CSR13, R13-1953, 4.1.4]

5.1.5. Reserved

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

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

5.1.8. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity except as noted in 5.1.9. *(C2DTE, C2ERE, C2KPE, C2DKE, C2EGE, C2EUE, C2KLE, C2KNE, C2EBE, C2DHE, C2EJE, C2EFE)* **[45CSR13, R13-1953, 4.1.11; 45CSR§7-3.1.]**

5.1.9. The provisions of 5.1.8. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(C2DTE, C2ERE, C2KPE, C2DKE, C2EGE, C2EUE, C2KLE, C2KNE, C2EBE, C2DHE, C2EJE, C2EFE)* **[45CSR13, R13-1953, 4.1.12; 45CSR§7-3.2.]**

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

5.1.11. Reserved

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

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

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

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

5.2. Monitoring Requirements

5.2.1. For the purpose of determining compliance with 5.1.8, the permittee shall perform routine monitoring of bagfilter systems in accordance to the requirements set forth in Table 5.2.1.

Table 5.2.1. - Demonstration of Opacity Standards

Control Device ID	Source ID	Claimed PM Control Efficiency (%)	Compliance Monitoring		
			Activity	Operating Parameter or Permitted Limit	Inspection Frequency
C2DKC	C2DK	99.9	Opacity	20%	Monthly
C2DSC	C2DS	99.99	Opacity	20%	Daily (when running)
C2DWC1	C2DW	99.9[1]	Process Interlock	ΔP > 20 psig	None Required
C2EGC	C2EG	99.9	Opacity	20%	Monthly
C2EHC1	C2EH	99.9[1]	Process Interlock	ΔP > 20 psig	None Required
C2ENC	C2EN	99.99	Opacity	20%	Daily (when running)
C2KPC	C2KP	99.99	Opacity	20%	Daily (when running)
C2EUC	C2EU	99.99	Opacity	20%	Monthly
C2EB1C	C2EB1	50.0	Opacity	20%	Monthly
C2EA1C	C2EA1	99.9	Opacity	20%	Monthly
C2EA2C	C2EA2	99.9	Opacity	20%	Monthly
C2KNC1	C2KN	99.9	Opacity	No VE	Monthly
C2KNC2		99.9	Opacity	No VE	Monthly
C2KLC	C2KL	99.9	Opacity	No VE	Monthly

[1] Control efficiency of particulate matter in the form of polymer only.

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

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

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

A log of all routine inspection and maintenance activities for which an inspection frequency is specified in Table 5.2.1., shall be maintained per condition 3.4.9.
[45CSR13, R13-1953, 4.2.1]

5.2.2. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1, 3.2, and 3.7 set forth in conditions 5.1.8, 5.1.9, and 5.1.10, the permittee shall conduct opacity monitoring for all emission points and equipment subject to an opacity limit under 45CSR7, including, but not limited to, the emission points addressed in 5.1.1. The opacity monitoring and record keeping shall include a visual emission evaluation for all emission points subject to a particulate matter emission limit contained in this permit. For emission points C2DKE, C2EGE, C2EUE, and C2EBE monitoring shall be conducted at least once per month. 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 1 minute 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; 45CSR§30-5.1.c.]

5.2.3. **Reserved.**

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

Table 5.2.4. - Process Interlock Settings

Control Device ID	Description	Compliance Monitoring & Interlock Settings
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.

Note: 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.

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

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

[45CSR13, R13-1953, 4.2.4]

5.3. Testing Requirements

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

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

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

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

5.4. Recordkeeping Requirements

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

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

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

5.5. Reporting Requirements

5.5.1. **Reserved.**

5.6. Compliance Plan

5.6.1. None.

6.0 Source-Specific Requirements [C3 Area]

6.1. Limitations and Standards

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

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

Table 6.1.2

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

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

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

Table 6.1.3

Emission Point ID	VOC		HF		Fluorides		PM10	
	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)
C3HPE	779.2	3.40	---	---	0.04	0.01	0.19	0.08
C3HGE	---	---	---	---	---	---	0.87	0.11
C3HG2E	---	---	---	---	---	---	0.02	0.002
C3HIE	255.7	0.814	---	---	---	---	---	---
C3IPE	0.40	0.28	---	---	---	---	---	---
Area	---	---	0.50	0.001	---	---	2.00	0.07

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

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

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

Table 6.1.4

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

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

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

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

6.2. Monitoring Requirements

6.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (6.1.5 and 6.1.6 of this permit), the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. 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 1 minute to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within twenty-four (24) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within twenty-four (24) hours after the visible emission and the sources are operating at normal conditions. (C3HGE, C3HG2E, and C3HPE) **[45CSR§30-5.1.c.]**

6.3. Testing Requirements

6.3.1. None.

6.4. Recordkeeping Requirements

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

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

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

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

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

6.4.6. Reserved.

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

Certified copies of these records shall be made available to the Director of the Division of Air Quality or his duly authorized representative upon request. At a time prior to submittal to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement.

If these records are considered to contain confidential business information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 - "Confidential Information."

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

6.5. Reporting Requirements

6.5.1. None.

6.6. Compliance Plan

6.6.1. None.

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

7.1. Limitations and Standards

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

Emission Point Name	Emission Point ID	Process Criteria Pollutant Emission Limits									
		VOC		SO_2		NO_x		CO		PM_{10}	
		PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY	PPH	TPY
Furnace	T1CAE	0.05	0.21	0.01	0.03	0.83	3.65	0.70	3.07	0.06	0.28
Furnace	T1CBE	0.07	0.30	0.01	0.04	1.24	5.45	1.04	4.58	0.09	0.42
Furnace	T1CCE	0.07	0.30	0.01	0.04	1.24	5.45	1.04	4.58	0.09	0.42
Furnace	T1CDE	0.07	0.29	0.01	0.04	1.19	5.25	1.00	4.41	0.09	0.40
Dryers	T1DBE	1.17	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mixed Gas Holder	T1GNE	1,380	7.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Raw Material Unloading	T1JBE	0.01	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
North Tank Farm Scrubber	T2ERE	1.74	0.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trailer Loading	T2EXE	0.76	0.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Analyzer	T2EYE	0.26	1.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Storage Tank	T4GBE	1.64	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooling Tower	T7AKE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.3	4.23
Portable Container Facility	T7EME	1.0	0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thermal Converter Stack	T7IME	1.45	6.47	0.64	1.77	3.30	5.29	0.57	2.46	0.42	1.96
Silo	T7IOE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.4	0.09
Emergency Generator	T7JJE	0.36	0.09	2.2	0.55	40.4	10.09	6.5	1.61	0.4	0.09
South Central Vent Stack	T7XIE	2,440	33.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

[45CSR13, R13-1823, 4.1.1.; 45CSR§2-4.1.b; 45CSR§6-4.1; 45CSR§7-4.1; and 45CSR§10-3.1.e]

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

Emission Point Name	Emission Point ID	Process Hazardous Air Pollutant Emission Limits									
		Chromium		HCl		HF		Methylene Chloride		Toluene	
		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
Storage Tank	T4GBE	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	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
Thermal Converter Stack	T7IME	0.03	0.04	0.06	0.26	0.54	2.51	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
South Central Vent Stack	T7XIE	N/A	N/A	14.7	1.54	N/A	N/A	N/A	N/A	N/A	N/A

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

Compliance with the above hydrochloric acid emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.2 hydrochloric acid concentration limits for emission points T2ERE, T7JDE, and T7XIE.

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

7.1.3. Reserved.

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

Pollutant Name	Maintenance Emission Limits (TPY)
VOC	19.5
HCl	0.56
HF	0.01
Toluene	0.03
Acetonitrile	0.01

[45CSR13, R13-1823, 4.1.4.]

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

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

[45CSR13, R13-1823, 4.1.5.]

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

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

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

[45CSR13, R13-1823, 4.1.7.]

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

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

[45CSR13, R13-1823, 4.1.8.]

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

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

7.1.11. **RESERVED.**

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

7.1.13 The provisions of 7.1.12 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(T7AKE, T2ERE, T7JDE, and T7XIE)* **[45CSR13, R13-1823, 4.1.13.; 45CSR§7-3.2.]**

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

7.1.15. The permittee shall comply with the following emission limitations of 45CSR18 for the thermal converter and associated scrubber (T7IMC):

Table 45-18J – Emission limits for existing commercial and industrial solid waste incinerators that apply on and after February 7, 2018[a]

Air pollutant	Emission limit[b]	Averaging time[c]	Performance test methods
Cadmium	0.0026-milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR60, appendix A-8). Use ICPMS for the analytical finish.
Carbon monoxide	17 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 10 at 40CFR 60, appendix A-4).
Dioxins/furans (total mass basis)	4.6 nanograms per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 at 40CFR60, appendix A-7).
Dioxins/furans (toxic equivalency basis)	0.13 nanograms per dry standard cubic meter.	3-run average-(collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 23 of 40CFR 60, appendix A-7).
Hydrogen chloride	29 parts per million by dry volume.	3-run average (For Method 26, collect a minimum volume of-60 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meter per run).	Performance test (Method 26 or 26A of 40CFR 60, appendix A-8).

Air pollutant	Emission limit[b]	Averaging time[c]	Performance test methods
Lead	0.015 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 2 dry standard cubic meters).	Performance test (Method 29 of 40CFR 60, appendix A-8) Use ICPMS for the analytical finish.
Mercury	0.0048 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008), collect a minimum volume of 2 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40CFR60, appendix A).	Performance test (Method 29 or 30B of 40CFR 60, appendix A-8) or ASTM D6784-02 (Reapproved 2008).
Nitrogen oxides	53 parts per million by dry volume.	3-run average (for Method 7E, 1-hour minimum sample time per run).	Performance test (Method 7 or 7E of 40CFR60, appendix A-4).
Particulate matter filterable	34 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meter).	Performance test (Method 5 or 29 of 40CFR 60, appendix A-3 or appendix A-8).
Sulfur dioxide	11 parts per million by dry volume.	3-run average (1 hour minimum sample time per run).	Performance test (Method 6 or 6C of 40CFR 60, appendix A-4).
Fugitive ash	Visible emissions for no more than 5% of the hourly observation period.	Three 1-hour observation periods.	Visible emission test (Method 22 at 40CFR60, appendix A-7).

a The date specified in the state plan can be no later than 3 years after the effective date of approval of a revised state plan or February 7, 2018.

b All emission limitations are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, the owner or operator shall meet either the total mass basis limit or the toxic equivalency basis limit.

c In lieu of performance testing, the owner or operator may use a CEMS or, for mercury, an integrated sorbent trap monitoring system, to demonstrate initial and continuing compliance with an emissions limit, as long as the owner or operator complies with the CEMS or integrated sorbent trap monitoring system requirements applicable to the specific pollutant in 9.9.a through 9.9.z and 9.10.a through 9.10.t. As prescribed in 9.9.u, if the owner or operator uses a CEMS or integrated sorbent trap monitoring system to demonstrate compliance with an emissions limit, the averaging time is a 30-day rolling average of 1-hour arithmetic average emission concentrations.

Compliance with the above 5 percent opacity limit shall demonstrate compliance with the less stringent twenty percent opacity limit of 45CSR§6-4.3.

[45CSR13, R13-1823, 4.1.15; 45CSR§§18-9.1 and 9.6.a, and Table 45-18J; §§62.12155 through 62.12157; 45CSR§6-4.3]

7.1.16. The Permittee shall meet the emission limitations specified under 7.1.15 and operating limits specified under 7.2.2. The emission limits apply at all times the unit is operating including and not limited to startup, shutdown, or malfunction. **[45CSR13, R13-1823, 4.1.16; 45CSR§§18-9.6.a, c, and d; 40 C.F.R. §§62.12155 through 62.12157]**

7.1.17. The permittee shall burn only the same types of waste and fuels used to establish the operating limits specified under 7.2.2. **[45CSR13, R13-1823, 4.1.17; 45CSR§18-9.9.d; 40 C.F.R. §§62.12155 through 62.12157]**

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

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

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

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

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

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

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

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

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

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

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

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

7.1.21. **40 C.F.R. 63, Subpart DDDDD (Boiler MACT)**

Sources T1CA, T1CB, T1CC and T1CD are existing process heaters that shall comply with the requirements of 40 C.F.R. 63, Subpart DDDDD – "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters".
[45CSR34; 40 C.F.R. §63.7485; 40 C.F.R. §63.7495(b)]

a. T1CA has a heat input capacity of <10 million BTUs/hr, therefore the permittee shall conduct biennial tune-ups for this source as specified in d. below. Each biennial tune-up specified in d. below must be conducted no more than 25 months after the previous tune-up.
[45CSR 34; 40 C.F.R. §63.7540(a)(11); 40 C.F.R. §§63.7500(a)(1) and (e); Table 3, Item #2; 40 C.F.R. §63.7515(d)]

b. T1CB, T1CC, and T1CD have heat input capacities ≥ 10 million BTUs/hr, therefore the permittee shall conduct annual tune-ups for this source as specified in d. below. Each annual tune-up specified in d. below must be conducted no more than 13 months after the previous tune-up.
[45CSR34; 40 C.F.R. §§63.7500(a)(1) and (e), Table 3, Item #3; 40 C.F.R. §63.7505(a); 40 C.F.R. §63.7515(d); 40 C.F.R. §63.7540(a)(10)]

c. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[45CSR34; 40 C.F.R. §63.7500(a)(3)]

d. You must conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up. This frequency does not apply to limited-use boilers and process heaters, as defined in 40 C.F.R. §63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.
[45CSR34; 40 C.F.R. §63.7540(a)(10)]

(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
[45CSR34; 40 C.F.R. §63.7540(a)(10)(i)]

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
[45CSR34; 40 C.F.R. §63.7540(a)(10)(ii)]

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
[45CSR34; 40 C.F.R. §63.7540(a)(10)(iii)]

(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
[45CSR34; 40 C.F.R. §63.7540(a)(10)(iv)]

(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
[45CSR34; 40 C.F.R. §63.7540(a)(10)(v)]

7.1.22. Operator Training and Qualification.

a. No CISWI unit shall be operated unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or within one hour of travel time from the facility. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you shall follow the procedures in Condition 7.1.22.k.

b. Operator training and qualification shall be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs b.1 through b.3.

b.1. Training on the eleven subjects listed in subparagraphs b.1.A through b.1.K.

b.1.A. Environmental concerns, including types of emissions.

b.1.B. Basic combustion principles, including products of combustion.

b.1.C. Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.

b.1.D. Combustion controls and monitoring.

b.1.E. Operation of air pollution control equipment and factors affecting performance (if applicable).

b.1.F. Inspection and maintenance of the incinerator and air pollution control devices.

b.1.G. Actions to prevent and correct malfunctions or to prevent conditions that may lead to malfunctions.

b.1.H. Bottom and fly ash characteristics and handling procedures.

b.1.I. Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

b.1.J. Pollution prevention.

b.1.K. Waste management practices.

b.2. An examination designed and administered by the instructor of the incinerator operator training course: and,

b.3. Written material covering the training course topics that can serve as reference material following completion of the course.

c. The operator training course shall be completed by the later of the following three dates:

c.1. The final compliance date set forth in 45CSR§18-9.3.e.

c.2. Six months after CISWI unit startup.

c.3. The date before an employee assumes responsibility for operating the CISWI or assumes responsibility for supervising the operation of the CISWI.

d. You shall obtain operator qualification by completing a training course that satisfies the criteria under subdivision b.

e. Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under paragraph b.2.

f. To maintain qualification, you shall complete an annual review or refresher course covering, at a minimum, the five topics described below:

f.1. Update of regulations.

f.2. Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.

f.3. Inspection and maintenance.

f.4. Prevention and correction of malfunctions or conditions that may lead to malfunction.

f.5. Discussion of operating problems encountered by attendees.

g. You shall renew a lapsed operator qualification by one of the two methods specified below:

g.1. For a lapse of less than 3 years, you shall complete a standard annual refresher course described in subdivision f.

g.2. For a lapse of 3 years or more, you shall repeat the initial qualification requirements set forth in subdivision d.

h. Documentation shall be available at the facility and readily accessible for all CISWI unit operators that addresses the ten topics described in paragraphs h.1 through h.10. You shall maintain this information and the training records required by subdivision j in a manner that they can be readily accessed and are suitable for inspection upon request.

h.1. Summary of the applicable standards under 45CSR§18-9.

h.2. Procedures for receiving, handling, and charging waste.

h.3. Incinerator startup, shutdown, and malfunction procedures.

h.4. Procedures for maintaining proper combustion air supply levels.

h.5. Procedures for operating the incinerator and associated air pollution control systems within the standards established under 45CSR§18-9.

h.6. Monitoring procedures for demonstrating compliance with the incinerator operating limits.

h.7. Reporting and recordkeeping procedures.

h.8. The waste management plan required under 45CSR§18-9.4.

h.9. Procedures for handling ash.

h.10. A list of the wastes burned during the performance test.

i. You shall establish a program for reviewing the information listed in subdivision h with each incinerator operator.

i.1. The initial review of the information listed in subdivision h shall be conducted by the later of the three dates specified in subparagraphs i.1.A through i.1.C.

i.1.A. The final compliance date (increment 2) set forth in 45CSR§18-9.3.e.

i.1.B. Six months after CISWI unit startup; or,

i.1.C. Six months after being assigned to operate the CISWI unit.

i.2. Subsequent annual reviews of the information listed in subdivision h shall be conducted no later than 12 months following the previous review.

j. You shall also maintain the information specified in paragraphs j.1 through j.3.

j.1. Records showing the names of CISWI unit operators who have completed review of the information in subdivision h as required by subdivision i, including the date of the initial review and all subsequent annual reviews.

j.2. Records showing the names of the CISWI operators who have completed the operator training requirements under Condition 7.1.22, met the criteria for qualification under subdivision d, and maintained or renewed their qualification under subdivision f or subdivision g. Records shall include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

j.3. For each qualified operator, the phone and/or cell phone number at which they can be reached during operating hours.

k. If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within one hour), you either, depending on the length of time that a qualified operator is not accessible:

k.1. When all qualified operators are not accessible for more than eight hours, but less than two weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in subdivision h within the past 12 months. However, you shall record the period when all qualified operators were not accessible and include this deviation in the annual report as specified under Condition 7.5.1.e.

k.2. When all qualified operators are not accessible for two weeks or more, you shall take both actions that are described below:

k.2.A. Notify the Secretary in writing within 10 days of this deviation. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible; and

k.2.B. Submit a status report to the Administrator and Secretary every four weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible and requesting approval from the Administrator and Secretary to continue operation of the CISWI unit. You shall submit the first status report four weeks after notification to the Administrator and Secretary of the deviation under subparagraph k.2.A. If the Administrator and Secretary notifies you that your request to continue operation of the CISWI unit is disapproved, the CISWI unit may continue operation for 90 days, then shall cease operation. Operation of the unit may resume if you meet the following requirements:

k.2.B.1. A qualified operator is accessible as required under subdivision a.

k.2.B.2. You notify the Administrator and Secretary that a qualified operator is accessible and that you are resuming operation.

[45CSR§18-9.5; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.1.23. Use of the bypass stack at any time is an emissions standards deviation for particulate matter, HCl, Pb, Cd, Hg, NO_x, SO_2, and dioxin/furans.
[45CSR§18-9.9.v; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2. Monitoring Requirements

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

If commercial production is nearly continuous, monitoring shall be conducted at least once per month. 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 1 minute to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visible emission evaluation per 45CSR7A (for T7IOE and T7AKE) within three (3) days of the first identification of visible emissions.

A 45CSR7A or 40 C.F.R. 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.

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

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

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

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

a. **Maximum charge rate** (for continuous units, maximum charge rate is 110 percent of the average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limitations);
[45CSR13, R13-1823, 4.2.2; 45CSR§§18-9.6.c.1.A]

b. **The pressure drop across the wet acid gas scrubber** shall be continuously monitored to ensure proper internal configuration of the scrubber while it is being used to treat acid gases;
[45CSR13, R13-1823, 4.2.2]

c. **Minimum scrubber liquor flow rate,** which is calculated as the lowest 1-hour average liquid flow rate at the inlet to the wet acid gas or particulate matter scrubber measured during the most recent performance test demonstrating compliance with all applicable emission limitations;
[45CSR13, R13-1823, 4.2.2; 45CSR§§18-9.6.c.3.]

d. **Minimum scrubber liquor pH,** which is calculated as the lowest 1-hour average liquor pH at the inlet to the wet acid gas scrubber measured during the most recent performance test demonstrating compliance with the HCl emission limitation.
[45CSR13, R13-1823, 4.2.2; 45CSR§§18-9.6.c.4]

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

Operating Parameter	Average Rate Measured During Compliance Testing	CISWI Operating Limit	Test Date Establishing Limit
Maximum charge rate	773.6 lb/hr	850.0 lb/hr	August 15-16,2023
Minimum scrubber liquor flow rate	40.7-gpm	40.7 gpm	August 15-16, 2023
Minimum scrubber liquor pH	7.0	7.0	August 15-16, 2023

Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values are used to determine compliance. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in 45CSR§18-9.9.a constitutes a deviation from the Permittee's operating limits, except during performance tests conducted to determine the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.
[45CSR13, R13-1823, 4.2.2; 45CSR§§18-9.6.c.1.A, 9.6.c.3, 9.6.c.4, 9.10.a, 9.9.c; 40 C.F.R. §§62.12155 through 62.12157]

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

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

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

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

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

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

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

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

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

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

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

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

7.2.7. **40 C.F.R. 63, Subpart FFFF.** The permittee shall demonstrate compliance with the hydrogen halide and halogen HAP emission standards listed in 7.1.20.b.i for the Thermal Converter (T7IMC) and associated scrubber, by maintaining the following monitoring parameters as established during the most recent performance tests dated August 15-16, 2023:

Thermal Converter – Scrubber (T7IMC)	Monitoring Frequency	Limit
Minimum Scrubber Effluent pH	Continuous	7.0
Minimum Scrubber Influent Liquor Flow	Continuous	40.7 gpm
Maximum Gas Stream Flow	Continuous	10,499.1 pph

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

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

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

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

7.2.9. The Permittee shall conduct an initial and annual inspection of the air pollution control device. The inspection shall include, at a minimum, the following:

k.1. Inspect air pollution control device(s) for proper operation.

k.2. Develop a site-specific monitoring plan according to the requirements in Condition 7.2.10. This requirement also applies to you if you petition the Administrator for alternative monitoring parameters under 40 CFR §60.13(i).

[45CSR§18-9.9.k; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2.10. For each CMS required in this section, you shall develop and submit to the Secretary for approval a site-specific monitoring plan according to the requirements of this subdivision that addresses subparagraphs l.1.A through l.1.F.

l.1. You shall submit this site-specific monitoring plan at least 60 days before your initial performance evaluation of your continuous monitoring system.

l.1.A. Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

l.1.B. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

l.1.C. Performance evaluation procedures and acceptance criteria (e.g., calibrations).

l.1.D. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR §60.11(d).

l.1.E. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR §60.13.

l.1.F. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR §§60.7(b),(c) introductory test, (c)(1), (c)(4), (d), (e), (f) and (g).

l.2. You shall conduct a performance evaluation of each continuous monitoring system in accordance with your site-specific monitoring plan.

l.3. You shall operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

[45CSR§18-9.9.l; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2.11. The facility shall meet the requirements in Condition 7.2.10 and paragraphs m.1 through m.4 below with regards to the use of a flow monitoring system.

m.1. Install the flow sensor and other necessary equipment in a position that provides a representative flow.

m.2. Use a flow sensor with a measurement sensitivity at full scale of no greater than 2 percent.

m.3. Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

m.4. Conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

[45CSR§18-9.9.m; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2.12. The facility shall meet the requirements in Condition 7.2.10 and paragraphs n.1 through n.6 below with regards to the usage of a pressure monitoring system.

n.1. Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (e.g., PM scrubber pressure drop).

n.2. Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

n.3. Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

n.4. Perform checks at the frequency outlined in your site-specific monitoring plan to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily).

n.5. Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

n.6. If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in your monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

[45CSR§18-9.9.n; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2.13. The facility shall meet the requirements of paragraphs o.1 through o.4 regarding the use of a pH monitoring system.

o.1. Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

o.2. Ensure the sample is properly mixed and representative of the fluid to be measured.

o.3. Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

o.4. Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

[45CSR§18-9.9.o; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2.14. The owner or operator of an affected source with a bypass stack shall install, calibrate (to manufacturers' specifications), maintain and operate a device or method for measuring the use of the bypass stack including date, time and duration.

[45CSR§18-9.10.p; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.2.15. Monitoring Data. -- For each continuous monitoring system required or optionally allowed under 45CSR§§18-9.10.a through 10.t, the Permittee shall monitor and collect data according to the following:

s.1. The Permittee shall operate the monitoring system and collect data at all required intervals at all times compliance is required except for periods of monitoring system malfunctions or out of control periods, repairs associated with monitoring system malfunctions or out of control periods (as specified in 45CSR§18-9.12.e.15), and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions or out of control periods and to return the monitoring system to operation as expeditiously as practicable.

s.2. The Permittee may not use data recorded during the monitoring system malfunctions, repairs associated with monitoring system malfunctions or out of control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

s.3. Except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out of control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.

[45CSR§18-9.10.u; 40 C.F.R. §§62.12155 through 62.12157 (T7IMC)]

7.3. Testing Requirements

7.3.1. Except as specified in l. below, the permittee shall conduct an annual performance test for the pollutants listed in Condition 7.1.15. The annual performance test shall be conducted using the test methods specified in 7.1.15. Subsequent annual performance tests shall be conducted no later than 13 months following the previous performance test.

a. All performance tests shall consist of a minimum of three test runs conducted under conditions representative of normal operations.

b. You shall document that the waste burned during the performance test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in 7.4.8) and the types of waste burned during the performance test.

c. All performance tests shall be conducted using the minimum run duration specified in Condition 7.1.15.

d. Method 1 of 40 CFR Part 60, Appendix A shall be used to select the sampling location and number of traverse points.

e. Method 3A or 3B of 40 CFR Part 60, Appendix A shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of Appendix A shall be used simultaneously with each method.

f. All pollutant concentrations, except for opacity, shall be adjusted to 7 percent oxygen using Equation 1:

$$C_{adj} = C_{meas}\frac{(20.9-7)}{(20.9-\%O_2)} \qquad Equation\ 1$$

Where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen;

C_{meas} = pollutant concentration measured on a dry basis;

(20.9 - 7) = 20.9 percent oxygen - 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

g. You shall determine dioxins/furans toxic equivalency by following the procedures in paragraphs g.1 through g.4.

g.1. Measure the concentration of each dioxin/furan tetra- through octa-isomer emitted using EPA Method 23 at 40 CFR Part 60, Appendix A.

g.2. Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. You shall quantify the isomers per Section 9.0 of Method 23 (Note: You may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5).

g.3. For each dioxin/furan (tetra through octa-chlorinated) isomer measured in accordance with paragraphs g.1 and g.2, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 45-18H of 45CSR18.

g.4. Sum the products calculated in accordance with paragraph g.3 to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

h. Method 22 at 40 CFR Part 60, Appendix A-7 shall be used to determine compliance with the fugitive ash emission limit in Condition 7.1.15.

i. If you have an applicable opacity operating limit, you shall determine compliance with the opacity limit using Method 9 at 40 CFR Part 60, Appendix A-4, based on three 1-hour blocks consisting of ten 6-minute average opacity values, unless the owner or operator is required to install a continuous opacity monitoring system, consistent with 45CSR§§18-9.9.a through 9.9.y and 9.10.a through 9.10.t.

j. You shall determine dioxins/furans total mass basis by following the procedures in paragraphs j.1 through j.3.

j.1. Measure the concentration of each dioxin/furan tetra- through octa-chlorinated isomer emitted using EPA Method 23 at 40 CFR Part 60, Appendix A-7.

j.2. Quantify isomers meeting identification criteria 2, 3, 4, and 5 in Section 5.3.2.5 of Method 23, regardless of whether the isomers meet identification criteria 1 and 7. You shall quantify the isomers per Section 9.0 of Method 23 (Note: You may reanalyze the sample aliquot or split to reduce the number of isomers not meeting identification criteria 1 or 7 of Section 5.3.2.5).

j.3. Sum the quantities measured in accordance with paragraphs j.1 and j.2 to obtain the total concentration of dioxins/furans emitted in terms of total mass basis.

k. You use results of performance tests to demonstrate compliance with the emission limitations in Condition 7.1.15.

l. The Permittee may test less often for the pollutants in 7.1.15 (except for opacity) as described below:

l.1. You shall conduct annual performance tests no later than 13 months of the previous performance test.

l.2. You shall conduct the air pollution control device inspections on an annual basis (but no more than 12 months following the previous annual air pollution control device inspection) and complete the air pollution control device inspection as described in 45CSR§§18-9.8.e and 9.8.f.

l.3. You shall conduct annual performance tests according to the schedule specified in 7.3.1.l, with the following exceptions:

l.3.A. You may conduct a repeat performance test at any time to establish new values for the operating limits, as specified in 7.3.1.m. New operating limits become effective on the date the you submit the performance test report to the EPA's Central Data Exchange or postmarked, per the requirements of 45CSR18-9.12.j.2. The Secretary may request a repeat performance test at any time.

l.3.B. You shall repeat the performance test within 60 days of a process change, as defined in Section 2 and;

l.3.C. You may conduct performance tests less often if the following conditions are met. For at least two consecutive performance tests the results from the performance tests demonstrate the emission level for the pollutant is no greater than the emission level specified in parts 1.3.C.1 or 1.3.C.2; there is not a change in the operation of the affected source or air pollution control equipment that could increase emissions; and you are not required to conduct a performance test for the pollutant in response to a request by the Secretary in subparagraph l.3.A or a process change in subparagraph l.3.B. If these conditions are met, you are not required to conduct a performance test for that pollutant for the next 2 years. You shall conduct a performance test for the pollutant no later than 37 months from the previous performance test for the pollutant. If the emission level for the CISWI unit continues to meet the emission level specified in 1.3.C.1 or 1.3.C.2, the owner or operator may conduct performance tests for the pollutant every third year if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions.
Each such performance test shall be conducted no later than 37 months from the previous performance test.

l.3.C.1. For particulate matter, hydrogen chloride, mercury, carbon monoxide, nitrogen oxides, sulfur dioxide, cadmium, lead, and dioxins/furans, the emission level equal to 75 percent of the applicable emission limit in Condition 7.1.15, as applicable.

l.3.C.2. For fugitive emissions, visible emissions (of combustion ash from the ash conveying system) for 2 percent of the time during each of the three 1-hour observation periods.

l.3.D. If you are conducting less frequent testing for a pollutant as provided in subparagraph l.3.C and a subsequent performance test for the pollutant indicates that your CISWI unit does not meet the emission level specified in parts l.3.C.1 or l.3.C.2, as applicable, you shall conduct annual performance tests for the pollutant according to the schedule specified in paragraph l.3 until you qualify for less frequent testing for the pollutant as specified in subparagraph l.3.C.

m. Repeat Performance Test to Establish New Operating Limits.

m.1. You may conduct a repeat performance test at any time to establish new values for the operating limits. The Secretary may request a repeat performance test at any time.

m.2. You shall repeat the performance test if your feed stream is different than the feed streams used during any performance test used to demonstrate compliance.

[45CSR13, R13-1823, 4.3.1; 45CSR§§18-9.7, 9.8.f, 9.9.b, 9.9.z, and 9.9.aa; 40 C.F.R. §§62.12155 through 62.12157]

7.3.2. Reserved

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

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

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

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

7.4. Recordkeeping Requirements

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

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

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

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

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

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

[45CSR13, R13-1823, 4.4.7.]

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

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

7.4.7. Records of the visible emission observations required by 7.2.1 shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and if

necessary, all corrective actions taken. The permittee shall maintain these records according to the conditions specified in 40 CFR 63.10(b)(1). Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request. If these records are considered to contain business confidential information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 - "Confidential Information." **[45CSR13, R13-1823, 4.4.10]**

7.4.8. You shall maintain the items (as applicable) as specified in subdivisions a, b, and subdivisions e through w for a period of at least 5 years for the thermal converter and associated scrubber (T7IMC):

a. Calendar date of each record.

b. Records of the data described in paragraphs b.1 through b.6:

b.1. The CISWI unit charge dates, times, weights, and hourly charge rates.

b.2. Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.

b.3. Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable.

b.4. Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

c. Reserved.

d. Reserved.

e. Identification of calendar dates and times for which data show a deviation from the operating limits in Table 45-18G with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

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

g. Records showing the names of CISWI unit operators who have completed review of the information in 45CSR18§9.5.h as required by 45CSR18§9.5.i, including the date of the initial review and all subsequent annual reviews.

h. Records showing the names of the CISWI operators who have completed the operator training requirements under 45CSR18§§9.5.a and 9.5.b, met the criteria for qualification under 45CSR18§§9.5.d and 9.5.e, and maintained or renewed their qualification under 45CSR18§§9.5.f or 9.5.g. Records shall include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

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

j. Records of calibration of any monitoring devices as required under 45CSR18§§9.10.a through 9.10.r.

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

l. The information listed in 45CSR18§9.5.h.

m. A daily log of the quantity of waste burned and the types of waste burned (always required).

n. Records of the annual air pollution control device inspections that are required for each CISWI unit subject to the emissions limits in 7.1.15 and records of any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Secretary.

o. For continuously monitored pollutants or parameters, you shall document and keep a record of the following parameters measured using continuous monitoring systems.

o.1. All 6-minute average levels of opacity.

o.2. All 1-hour average concentrations of sulfur dioxide emissions.

o.3. All 1-hour average concentrations of nitrogen oxides emissions.

o.4. All 1-hour average concentrations of carbon monoxide emissions.

o.5. All 1-hour average concentrations of particulate matter emissions.

o.6. All 1-hour average concentrations of mercury emissions.

o.7. All 1-hour average concentrations of HCl CEMS outputs.

o.8. All 1-hour average percent oxygen concentrations.

o.9. All 1-hour average PM CPMS readings or particulate matter CEMS outputs.

p. Records indicating use of the bypass stack, including dates, times and durations.

q. If you choose to stack test less frequently than annually, consistent with 45CSR18§§9.9.z.3, you shall keep annual records that document that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

r. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

s. Records of all required maintenance performed on the air pollution control and monitoring equipment.

t. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §60.11(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

u. For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR §241.3(b)(1), records which document how the secondary material meets each of the legitimacy criteria under 40 CFR §241.3(d)(1). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR §241.3(b)(4), you shall keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR §241.2 and each of the legitimacy criteria in 40 CFR §241.3(d)(1); if the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR §241.3(c), records that document how the fuel satisfies the requirements of the petition process; for operating units that combust nonhazardous secondary materials as fuel per 40 CFR §241.4, records documenting that the material is a listed non-waste under 40 CFR §241.4(a).

v. Records of the criteria used to establish that the unit qualifies as a small power production facility under §3(17)(C) of the Federal Power Act (16 U.S.C. §796(17)(C)) and that the waste material the unit is proposed to burn is homogeneous.

w. Records of the criteria used to establish that the unit qualifies as a cogeneration facility under §3(18)(B) of the Federal Power Act (16 U.S.C. §796(18)(B)) and that the waste material the unit is proposed to burn is homogeneous.

x. The owner or operator shall have all records available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Secretary.

[45CSR13, R13-1823, 4.4.11; 45CSR§18-9.11; 40 C.F.R. §§62.12155 through 62.12157]

7.4.9. **40 C.F.R. 63, Subpart EEEE.** For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in 7.4.9 on a plant site plan or process and instrumentation diagram (P&ID). **[45CSR34; 40 C.F.R. §63.2343(a); 45CSR13, R13-1823, 4.4.12]**

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

7.4.11. **40 C.F.R. 63, Subpart EEEE.** For each transfer rack subject to 40 C.F.R. 63, Subpart EEEE that loads organic liquids but is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 7 through 10, you must keep documentation, including the records specified in 40 C.F.R. §63.2390(d), that verifies the transfer rack is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for

expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. **[45CSR34; 40 C.F.R. §§63.2343(c) and (c)(3); 45CSR13, R13-1823, 4.4.14]**

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

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

7.4.14. **40 C.F.R. 63, Subpart DDDDD.** The permittee shall keep a copy of each notification and report submitted to comply with 40 C.F.R 63 Subpart DDDDD, including all documentation supporting the Initial Notification or Notification of Compliance Status or periodic compliance reports submitted, according to the requirement in § 63.10(b)(2)(xiv) and§ 63.10(b)(2)(viii).
[40 C.F.R. §§ 63.7555 (a)(1),(2); 45CSR34]

a. For Furnaces T1CB, T1CC and T1CD, the permittee shall comply with recordkeeping requirements of 40 C.F.R. §63.7540(a)(10)(vi) and maintain an annual report containing the tune-up data specified by 40 C.F.R. §63.7540(a)(10)(vi)(A) through (C):
   (i) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
   (ii) A description of any corrective actions taken as a part of the tune-up; and
   (iii) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

b. For Furnace T1CA, the permittee shall comply with recordkeeping requirements of 40 C.F.R. §63.7540(a)(11) and maintain a biennial report containing the tune-up data specified by 40 C.F.R. §63.7540(a)(10)(vi)(A) through (C):
   (i) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
   (ii) A description of any corrective actions taken as a part of the tune-up; and
   (iii) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

   [40 C.F.R. §§63.7540(a)(10)(vi) and (a)(11); 40 C.F.R. §63.7555; 45CSR34]

7.5. Reporting Requirements

7.5.1. The permittee shall comply with the following reporting requirements:

a. The owner or operator shall comply with the reporting requirements provided in Table 45-18I.

b. You shall submit a waste management plan no later than the date specified in Table 45-18E for submittal of the final control plan.

c. You shall submit the information specified in paragraphs c.1 through c.3 no later than 60 days following a performance test. All reports shall be signed by the facilities manager.

c.1. The complete test report for the initial performance test results obtained under 45CSR§18-9.8.a, as applicable.

c.2. The values for the site-specific operating limits established for 7.2.2.

d. You shall submit an annual report no later than 12 months following the submission of the information in 7.5.1.c. You shall submit subsequent reports no more than 12 months following the previous report. If the unit is subject to Title V permitting requirements under 45CSR30, you may be required by the permit to submit these reports more frequently.

e. The annual report required under subdivision 7.5.1.d shall include the items listed in paragraphs e.1 through e.16. If you have a deviation from the operating limits or the emission limitations, you shall also submit deviation reports as specified in 7.5.2.

e.1. Company name and address.

e.2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

e.3. Date of report and beginning and ending dates of the reporting period.

e.4. The values for the operating limits established pursuant to 7.2.2.

e.5. If no deviation from any emission limitation or operating limit that applies to you has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period.

e.6. The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.

e.7. Information recorded under 7.4.8.c, d, and e for the calendar year being reported.

e.8. If a performance test was conducted during the reporting period, the process unit tested, the pollutant tested and the performance test date. The owner or operator shall not submit the performance test report later than the date of submittal of the annual report and shall follow the procedure specified in 45CSR§18-9.12.j.2.A.

e.9. A statement that the facility met the requirements of paragraph 7.3.1.l.1 or 7.3.1.l.2, and, therefore, was not required to conduct a performance test during the reporting period, if the facility met the requirements of paragraph 7.3.1.l.1 or 7.3.1.l.2, and, you did not conduct a performance test during the reporting period.

e.10. Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

e.11. If you had a malfunction during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR §60.11(d), including actions taken to correct a malfunction.

e.12. For each deviation from an emission or operating limitation that occurs for a CISWI unit for which you are not using a CMS to comply with the emission or operating limitations in section 9, the annual report shall contain the following information.

e.12.A. The total operating time of the CISWI unit at which the deviation occurred during the reporting period.

e.12.B. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

e.13. If there were periods during which the continuous monitoring system, including the CEMS, was out of control as specified in paragraph e.15, the annual report shall contain the following information for each deviation from an emission or operating limitation occurring for a CISWI unit for which you are using a continuous monitoring system to comply with the emission and operating limitations in 45CSR§18-9.

e.13.A. The date and time that each malfunction started and stopped.

e.13.B. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

e.13.C. The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken.

e.13.D. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

e.13.E. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

e.13.F. The total duration of the deviations during the reporting period categorized according to each of the following attributed causes: control equipment problems, process problems, other known causes, and other unknown causes.

e.13.G. A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the CISWI unit at which the continuous monitoring system downtime occurred during that reporting period.

e.13.H. An identification of each parameter and pollutant that was monitored at the CISWI unit.

e.13.I. A brief description of the CISWI unit.

e.13.J. A brief description of the continuous monitoring system.

e.13.K. The date of the latest continuous monitoring system certification or audit.

e.13.L. A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

e.14. If there were periods during which the continuous monitoring system, including the CEMS, was not out of control as specified in paragraph e.15, a statement that there were not periods during which the continuous monitoring system was out of control during the reporting period.

e.15. A continuous monitoring system is out of control if any of the following occur.

e.15.A. The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

e.15.B. The continuous monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

e.15.C. The continuous opacity monitoring system calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard.

e.16. For energy recovery units, include the annual heat input and average annual heat input rate of all fuels being burned in the unit to verify which subcategory of energy recovery unit applies.

[45CSR13, R13-1823, 4.5.1; 45CSR§§18-9.12.a-e; 40 C.F.R. §§62.12155 through 62.12157]

7.5.2. Deviation from the Operating Limits or Emission Limitations.

1. You shall submit a deviation report if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under 7.2.2, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation.

2. The deviation report shall be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

3. In each report required under 7.5.2 for any pollutant or parameter that deviated from the emission limitations or operating limits specified in 45CSR§18-9, include the four items described in paragraphs 3.a through 3.d.

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

   b. The averaged and recorded data for those dates.

   c. Durations and causes of the following:

1. Each deviation from emission limitations or operating limits and your corrective actions.

2. Bypass events and your corrective actions.

d. A copy of the operating limit monitoring data during each deviation and any test report that documents the emission levels, the process unit tested, the pollutant tested and the date that the performance test was conducted. The owner or operator shall not submit the performance test report later than the submittal date of the deviation report according to 45CSR§18-9.12.j.2.A.

4. Deviation from the Requirement to have a Qualified Operator Accessible. -- If no qualified operator is accessible for 2 weeks or more, you shall take the two actions in paragraphs 4.a and 4.b.

a. Submit a notification of the deviation within 10 days that includes the three items in subparagraphs 4.a.1 through 4.a.3.

1. A statement of what caused the deviation.

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

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

b. Submit a status report to the Secretary every 4 weeks that includes the three items in subparagraphs 4.b.1 through 4.b.3.

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

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

3. A request for approval from the Administrator to continue operation of the CISWI unit.

5. If your unit was shut down by the Administrator under the provisions of paragraph 4.b due to a failure to provide an accessible qualified operator, you shall notify the Administrator that you are resuming operation once a qualified operator is accessible.

[45CSR13, R13-1823, 4.5.2; 45CSR§§18-9.12.f-h; 40 C.F.R. §§62.12155 through 62.12157]

7.5.3. Reserved

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

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

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

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

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

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

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

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

7.5.7. **40 C.F.R. 63, Subpart DDDDD.** The permittee shall submit all required applicable reports and notifications per the requirements of 40 C.F.R. §§63.7545(e)(1) and (8); 40 C.F.R. §63.7550(b) and (c)(1); and 40 C.F.R. 63, Subpart A. **[45CSR34, 40 C.F.R. 63, Subpart A; 40 C.F.R. §63.7545; 40 C.F.R. §63.7550]**

7.6. Compliance Plan

7.6.1. None.

8.0 Source-Specific Requirements [T5 Area]

8.1. Limitations and Standards

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

Table 8.1.1.

Emission Point ID	Source ID (Description)	Control Device	Pollutant	Emission Limit	
				pph	tpy
T5HTE	T5HT (#1 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HUE	T5HU (#2 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HVE	T5HV (#3 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HWE	T5HW (#4 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HXE	T5HX (#5 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HN (Area Emissions)	T5HN (Raw Material System)	None	VOC	2.2	0.01
T5HC & T5HD (Area Emissions)	T5HC (#4 Polykettle) T5HD (#5 Polykettle)	None	ODC VOC	0.1 1.7	0.02 7.14
T5HCE	T5HC (#4 Polykettle) T5HN (Raw Material System) T5HW (#4 Tank) T5HP (Raw Material Tank)	None	ODC VOC	0.8 17.10	0.15 3.30
T5HCE2	T5HC (#4 Polykettle)	None	ODC VOC	0.7 152.0	0.01 1.33
T5HDE	T5HD (#5 Polykettle) T5HX (#5 Tank) T5HT(#1 Tank) T5HU (#2 Tank) T5HV (#3 Tank) T5HP (Raw Material Tank)	None	ODC VOC	0.78 32.30	0.15 3.30
T5HDE2	T5HD (#5 Polykettle)	None	ODC VOC	0.7 152.0	0.01 1.33
T5HAE	T5HA (#1 Heater)	None	NOx CO PM (Total, 2.5, 10) SO_2 VOC	0.5 0.4 0.1 0.1 0.1	1.90 1.60 0.15 0.02 0.11

Emission Point ID	Source ID (Description)	Control Device	Pollutant	Emission Limit	
				pph	tpy
T5HBE	T5HB (#2 Heater)	None	NOx CO PM (Total, 2.5, 10) SO_2 VOC	0.5 0.4 0.1 0.1 0.1	1.80 1.51 0.14 0.02 0.10
T5HGE	T5HG (#1 Dryer)	T5HGC (Cyclone)	PM PM_{10} VOC	0.5 0.1 0.06	1.22 0.22 0.15
T5HIE	T5HI (#2 Dryer)	T5HIC (Cyclone)	PM PM_{10} VOC	0.7 0.2 0.1	0.92 0.17 0.11
T5HYE	T5HY (Chiller)	None	Methanol (67-56-1)	0.11	0.780

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

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

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

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

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

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

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

8.1.7. Reserved.

8.1.8. Reserved.

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

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

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

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

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

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

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

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

8.1.15. **40 C.F.R. 63, Subpart DDDDD (Boiler MACT)**
Sources T5HA and T5HB are existing process heaters that shall comply with the requirements of 40 C.F.R. 63, Subpart DDDDD – "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters".
[45CSR34; 40 C.F.R. §63.7495(b)]

a. T5HA and T5HB have heat input capacities of <5 million BTUs/hr, therefore the permittee shall conduct tune-ups for these sources every five (5) years as specified in Condition 7.1.21.d.(i)-(v). The burner inspection may be delayed until the next scheduled or unscheduled shut down, but the Permittee must inspect each burner at least once every 72 months. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. Each 5-year tune-up specified in Condition 7.1.21.d.(i)-(v) must be conducted no more than 61 months after the previous tune-up.
[45CSR34; 40 C.F.R. §§63.7500(a)(1) and (e), Table 3, Item #1; 40 C.F.R. §63.7505(a); 40 C.F.R §63.7515(d); 40 C.F.R. §§ 63.7540(a)(12) and (13)]

b. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[45CSR34; 40 C.F.R. §63.7500(a)(3)]

8.2. Monitoring Requirements

8.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (8.1.12 and 8.1.13. of this permit), the permittee shall conduct opacity monitoring and record keeping for emission points T5HGE and T5HIE. Monitoring shall be conducted at least once per month. 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 1 minute 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, 45CSR§30-5.1.c]**

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

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

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

8.3. Testing Requirements

8.3.1. None.

8.4. Recordkeeping Requirements

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

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

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

8.4.4. Additional record keeping requirements are provided in 8.2.2.

8.4.5. For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location.
The documentation may consist of identification of the tanks and transfer racks identified in 5.4.24 on a plant site plan or process and instrumentation diagram (P&ID). *(T5HY)* **[45CSR34; 40 C.F.R. §63.2343(a)]**

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

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

8.4.8 **40 C.F.R. 63, Subpart DDDDD.** The permittee shall keep a copy of each notification and report submitted to comply with 40 C.F.R 63 Subpart DDDDD, including all documentation supporting the Initial Notification or Notification of Compliance Status or periodic compliance reports submitted, according to the requirement in § 63.10(b)(2)(xiv) and§ 63.10(b)(2)(viii).
[45CSR34, 40 C.F.R. §§ 63.7555 (a)(1),(2); 45 CSR 34]

a. For process heaters T5HA and T5HB, the permittee shall comply with recordkeeping requirements of 40 C.F.R. §63.7540(a)(12) and maintain a 5-year report containing the tune-up data specified by 40 C.F.R. §63.7540(a)(10)(vi)(A) through (C):
   (i) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
   (ii) A description of any corrective actions taken as a part of the tune-up; and
   (iii) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[45CSR34, 40 C.F.R. §§63.7540(a)(10)(vi) and (a)(12)]

8.5. Reporting Requirements

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

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

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

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

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

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

8.5.2. **40 C.F.R. 63, Subpart DDDDD.** The permittee shall submit all required applicable reports and notifications per the requirements of 40 C.F.R. §§63.7545(e)(1) and (8); 40 C.F.R. §63.7550(b) and (c)(1); and 40 C.F.R. 63, Subpart A.
[45CSR34, 40 C.F.R. 63, Subpart A; 40 C.F.R. §63.7545; 40 C.F.R. §63.7550]

8.6. Compliance Plan

8.6.1. None.

9.0 Source-Specific Requirements [T6 Area]

9.1. Limitations and Standards

9.1.1. Maximum daily production shall not exceed 12 batches per day on reactor #6 (T6IB) and #7 (T6IC) or 15 batches per day on reactor #8 (T6ID) and #9 (T6IU). The maximum annual production rates shall not exceed 2920 batches per year on reactors #6 (T6IB) and #7 (T6IC) or 3650 batches per year on reactors #8 (T6ID) and #9 (T6IU). **[45CSR13, R13-0815, 4.1.1]**

9.1.2. During homopolymer production, emissions generated from reactors #6 (T6IB), #7 (T6IC), #8 (T6ID), and #9 (T6IU) shall be routed to recovery equipment in the monomer area until the reactor pressure drops to 2 psig (max. 2.5 psig, average 2 psig). During copolymer production, reactors #8 (T6ID) and #9 (T6IU) shall be vented to monomer area control equipment, emission point T7IME, until the reactor pressure drops to 5 psig (max. 5.5 psig, average 5 psig) or to the monomer's area recovery equipment until the reactor pressure drops to 2 psig (max. 2.5 psig, average 2 psig). Recovery and control equipment in the monomer area are permitted by R13-1823, and/or any Amendments thereto. **[45CSR13, R13-0815, 4.1.2]**

9.1.3. Both scrubbers having air pollution control devices, ID No. T6IFC and T6IZC, shall be operated at all times emissions are generated from the No. 1, 2, or 3 dryers designated as ID No. T6IV, T6IE, and T6IF respectively. **[45CSR13, R13-0815, 4.1.3]**

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

Table 9.1.4

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

[45CSR13, R13-0815, 4.1.4 and 4.2.1]

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

Table 9.1.5

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

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				Hourly (pph)[1]	Annual (tpy)
T6IJE	T6IJ (#2 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.01
T6IKE	T6IK (#3 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.01
T6ILE	T6IL (#4 Wt. Tank)	None	ODC VOC	0.1 4.7	0.01 0.01
Area	T6PI (Feed System)	None	Acetonitrile (107-13-1) VOC	0.01 17.86	0.001 1.09
Area	T6PJ (Raw Material System)	None	VOC	7.5	0.04
T6IBE	T6II (#1 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6IB (Reactor #6) T6QJ (#6 Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	43.9 0.30 0.01 0.01	10.30 0.42 0.001 0.001
T6ICE	T6IJ (#2 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6IC (Reactor #7) T6QK (#7 Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	43.9 0.30 0.01 0.01	10.30 0.42 0.001 0.001
T6IDE	T6IK (#3 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6ID (Reactor #8) T6QL (#8 Tank) T6PJ (Raw Material System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	43.9 0.30 0.01 0.01	14.38 0.58 0.001 0.001
T6IUE	T6IL (#4 Wt. Tank) T6PB (Feed System) T6PI (Feed System) T6IU (Reactor #9) T6QM (#9 Zinc Chloride Tank) T6PJ (Raw Material System) T5HM (Monomer System)	None	VOC ODC Acetonitrile (107-13-1) Toluene (108-88-3)	122.50 0.36 0.01 0.01	18.42 0.49 0.01 0.01
Area	T6QI (Knockout Pot)	None	VOC ODC	0.1 0.1	0.01 0.01
T6PCE	T6PC (#6 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.20 0.01 0.01 0.1	2.30 0.001 0.001 0.10
T6PDE	T6PD (#7 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.20 0.01 0.01 0.1	2.30 0.001 0.001 0.10

Emission Point	Source Description	Control Device	Pollutant	Emission Limit	
				Hourly (pph)[1]	Annual (tpy)
T6PEE	T6PE (#8 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.20 0.01 0.01 0.1	2.59 0.001 0.001 0.11
T6PFE	T6PF (#9 Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	4.20 0.01 0.01 0.1	2.59 0.001 0.001 0.11
Area	T6PT (Decanter)	None	VOC Acetonitrile (107-13-1) Toluene (108-88-3) ODC	6.30 0.01 0.01 0.1	0.70 0.001 0.001 0.01
T6PGE	T6QG (Feed Tank) T6QH(Feed Tank)	None	VOC ODC HAP	0.87 0.01 0.01	1.52 0.01 0.01
T6PGE	T6PG (#3 Stab Tank) T6PH (#4 Stab Tank)	None	PM_{10}	0.10	0.02
T6PME	T6IW (#1 Float Tank)	None	PM_{10}	0.1	0.01
T6IGE	T6IG (#2 Float Tank) T6IH (#3 Float Tank)	None	PM_{10}	0.1	0.01
T6IZCE	T6IV (#1 Dryer) T6IE (#2 Dryer) T6IF (#3 Dryer)	Wet Collector Wet Collector Wet Collector	VOC PM_{10}	0.50 0.3	2.23 0.33
T6IEE	T6IE (#2 Dryer)	None	VOC PM_{10}	1.10 0.5	0.03 0.01
T6IFE	T6IF (#3 Dryer)	None	VOC PM_{10}	1.10 0.5	0.03 0.01
T6IXE	T6IX (#1 Chiller Cooler Vent)	None	PM_{10}	0.1	0.044
T6IYE	T6IY (#3 Chiller Cooler Vent) T6IY (#3 Chiller Cooler Vent)	None None	PM_{10}	0.1	0.044
T6SJE	T6SJ (Solid-liquid separation tank)	None	VOC ODC Acetonitile	0.87 0.01 0.01	0.16 0.01 0.01
T6SKE	T6SK Cooling Tower	None	PM	0.02	0.09
T6SLE	T6SL Container Loading	None	VOC	0.41	0.57

[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.

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points T6PME, T6IGE, T6IZCE, T6IEE, T6IFE, T6IXE, T6IYE, T6PGE, and T6SKE.

[45CSR13, R13-0815, 4.1.5 and 5.1.4; 45CSR§7-4.1.]

9.1.6. Compliance with all annual emission and/or operating limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean a sum at any given time during the previous twelve (12) consecutive calendar months. **[45CSR13, R13-0815, 4.1.8]**

9.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. *(T6PME, T6IGE, T6IZCE, , T6IEE, T6IFE, T6IXE, T6IYE, T6PKE, T6PNE, T6POE, T6PPE, T6PRE, T6PSE, T6PXE, T6PZE, T6SBE, T6SEE, T6PGE, and T6SKE)* **[45CSR13, R13-0815, 5.1.2; 45CSR§7-3.1.]**

9.1.8. The provisions of 9.1.7. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(T6PME, T6IGE, T6IZCE, , T6IEE, T6IFE, T6IXE, T6IYE, T6PKE, T6PNE, T6POE, T6PPE, T6PRE, T6PSE, T6PXE, T6PZE, T6SBE, T6SEE, T6PGE, and T6SKE)* **[45CSR13, R13-0815, 5.1.3; 45CSR§7-3.2.]**

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

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

[45CSR13, R13-0815, 5.1.4; 45CSR§7-4.1.]

9.2. Monitoring Requirements

9.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (9.1.7 and 9.1.8 of this permit), the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. 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 1 minute to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within twenty-four (24) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within twenty-four (24) hours after the visible emission and the sources are operating at normal conditions. **[45CSR§30-5.1.c.]**

9.3. Testing Requirements

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

A test protocol shall be submitted to DAQ for approval within thirty (30) days of the test date. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times at which the tests will be conducted. The results of emission testing shall be submitted to the DAQ within sixty (60) days of the actual test date.
[45CSR13, R13-0815, 5.1.6.7]

9.4. Recordkeeping Requirements

9.4.1. For the purpose of determining compliance with the permit limits as described in 9.1.1, 9.1.2, 9.1.3, 9.1.4, and 9.1.5, the permittee shall maintain monthly calculations of the average hourly and total annual emissions associated with the operation of all affected sources. In addition, the permittee shall record and document all operating parameters and production records used to calculate or verify the monthly emission estimates. This information shall be maintained for at least five (5) years following the date of each record, report, occurrence, measurement, maintenance, or corrective action. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche. At a time prior to being submitted to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the Certification of Data Accuracy statement. **[45CSR13, R13-0815, 5.1.6.4 and 5.1.6.5]**

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

a. The equipment involved and associated cause of the malfunction

b. Steps taken to correct the malfunction

c. Steps taken to minimize emissions during the malfunction

d. The duration of the malfunction

e. The estimated increase in emissions during the malfunction

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

[45CSR13, R13-0815, 5.1.6.6]

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

9.5. Reporting Requirements

9.5.1. None.

9.6. Compliance Plan

9.6.1. None.

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

10.1. Limitations and Standards

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

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

b. Store waste solvent in covered containers.

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

d. Drain the cleaned parts until dripping ceases.

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

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

[45CSR§§21-30.3.a.4, 30.3.a.5, 30.3.a.6, 30.3.a.7, 30.3.a.8, 30.3.a.9 (State-Enforceable Only)]

10.2. Monitoring Requirements

10.2.1. None.

10.3. Testing Requirements

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

10.4. Recordkeeping Requirements

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

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

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

[45CSR§21-30.5. and 45CSR§30-5.1.c. (State-Enforceable Only)]

10.5. Reporting Requirements

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

a. The name and location of the facility;

b. The subject sources that caused the excess emissions;

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

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

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

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

[45CSR§21-5.2]

10.6. Compliance Plan

10.6.1. None.

11.0 Source-Specific Requirements [C4 Area]

11.1. Limitations and Standards

11.1.1. Emissions to the atmosphere of PM_{10} shall not exceed the hourly and annual emission limits as set forth in Table 11.1.1.

Table 11.1.1 – PM_{10} Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C4AEE	C4AE (Cleaner)	0.07	0.04

Compliance with the hourly particulate matter emission limit above shall demonstrate compliance with the less stringent hourly particulate matter emission limit of 45CSR§7-4.1.
[45CSR13, R13-3645, 4.1.1 and 5.1.1; 45CSR§7-4.1]

11.1.2. Emissions to the atmosphere of VOC shall not exceed the hourly and annual emission limits as set forth in Table 11.1.2.

Table 11.1.2 – VOC Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C4ACE	C4AC (Extruder) C4AD (Treater)	0.17	0.40
C4AEE	C4AE (Cleaner)	0.14	0.09

[45CSR13, R13-3645, 4.1.2]

11.1.3. Emissions to the atmosphere of HAP shall not exceed the hourly and annual emission limits as set forth in Table 11.1.3.

Table 11.1.3 – HAP Emission Limits

Emission Point ID	Source ID	Emission Limit	
		(pph)	(tpy)
C4ACE	C4AC (Extruder) C4AD (Treater)	0.01	0.03
C4AEE	C4AE (Cleaner)	0.01	0.01

[45CSR13, R13-3645, 4.1.3]

11.1.4. Process equipment C4AA and C4AB shall be vented to the baghouse (Equipment ID C4AAC1).
[45CSR13, R13-3645, 4.1.4]

11.1.5. The permittee shall maintain and operate the baghouse and any other air emissions control devices installed at the C-4 Area in accordance with proper operational guidelines to minimize emissions. For the baghouse and any other air emissions control devices installed in the C-4 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 baghouse and other control devices include, but are not limited to those identified as: baghouse C4AAC1 and other collectors (liquid ring vacuum pump) C4AEC1.

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, R13-3645, 4.1.6]

11.1.6. 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, except as noted in 45CSR7 subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR13, R13-3645, 5.1.1; 45CSR§7-3.1]

11.1.7. The provision of condition 11.1.6 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.
[45CSR13, R13-3645, 5.1.1; 45CSR§7-3.2]

11.2. Monitoring Requirements

11.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 (conditions 11.1.6 and 11.1.7), the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7, including, but not limited to, the emission points C4AAE and C4AEE. The opacity monitoring and record keeping shall include visual emission checks for all emission points subject to a particulate matter emission limit contained in this permit.

Monitoring shall be conducted at least once per month. The checks shall be conducted by personnel trained in the practices and limitations of 40 CFR 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.

Records shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken.

[45CSR13, R13-3645, 4.2.1]

11.2.2. Compliance monitoring shall be accomplished by the use of process information and process knowledge to calculate the estimated emissions from the C-4 Compounding Area.

[45CSR13, R13-3645, 4.2.2] *(C4AA, C4AB, C4AC, C4AD, C4AE)*

11.2.3. 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 in any given month of the previous twelve (12) consecutive calendar months.

Table 11.2.3.(a) Process Interlock Settings

Control Device ID	Description	Compliance Monitoring & Interlock Settings
C4AAC1	Baghouse	The baghouse 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 shall be set at 6" w.c. to monitor for restricted or overloaded bags. If the pressure drop range exceeds 4.0 inches H_2O then cleaning shall be initiated.
C4AEC1	Liquid-ring Vacuum Pump	If flow to the vacuum pump is > 5 gallons per minute, the pump will be shut down for maintenance check and repair.

Note: 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.

Table 11.2.3.(b) Parametric Monitoring of Control Equipment

Control Device ID	Description	Monitoring Parameter
C4AAC1	Baghouse	Min. Baghouse Delta P (<1 in. H_2O)
C4AAC1	Baghouse	Visible Emissions Observation (like Method 22) while the stack is running
C4AEC1	Liquid-ring Vacuum Pump	Max. Flow Rate (>5 gallons per minute)

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, R13-3645, 4.2.3]

11.3. Testing Requirements

11.3.1. 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 the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR13, R13-3645, 5.1.1; 45CSR§7-8.1]

11.3.2. 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, R13-3645, 5.1.1; 45CSR§7-8.2]

11.4. Recordkeeping Requirements

11.4.1. For the purpose of determining compliance with the maximum emission limits set forth in Section 11.1, the permittee shall maintain records equivalent to the example recordkeeping form supplied as Appendix F.
[45CSR13, R13-3645, 4.4.1]

11.5. Reporting Requirements

11.5.1. None.

11.6. Compliance Plan

11.6.1. None.

Appendix A: R13-2365 Attachments (C1 Area)

Attachment A
Monthly Records

Chemours 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.	Monthly Monitoring	
		Value	Parameter
Comonomer cylinders	C1FW		Cylinder disconnects – Comonomer A
Comonomer cylinders	C1FW		Cylinder disconnects – 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
Dryer	C1FS		Maximum dispersion flow to filter (lb/hr)
Dried polymer production	N/A		lb polymer
Extruder	C1FV		Maximum hourly screw speed
Polymer to mixer	N/A		lb polymer
Reactor	C1FE		Maximum bin weight for month
Reactor production	C1FE		# of batches
Reactor	C1FH		Maximum bin weight for month
Reactor production	C1FH		# of batches
Extruder burnout oven	C1GR and C1PU		Small packs cleaned
Extruder burnout oven	C1GR and C1PU		Large packs cleaned
C1FSC1 filter delta P	C1FSC1		Maximum value (while running) (hourly average)
C1FEC scrubbing liquid conc., %	C1FEC		Minimum value (while running)
Reactor	C1FQ		# of completed GenX commercial dispersion batches included in count above
Reactor	C1FQ		# of aborted GenX commercial dispersion batches included in count above
Sump	C1GK		# of sumped GenX commercial dispersion batches included in count above
Extruder/Gear Pump	C1FV		Total lbs of GenX commercial cube production (fluorinated and nonfluorinated) included in count above
Condenser System	C1NGC		Maximum cooling supply temperature while venting for month
Wet Collecting System-Scrubber	C1PGC2		Maximum circulating filter delta P and Minimum Total Water Flow to Scrubber
Adsorption System – Plate Dry Carbon Beds	C1PGC3		Maximum and Minimum delta P across carbon beds (hourly average)

Equipment	Equipment ID No.	Monthly Monitoring	
		Value	Parameter
Baghouse	C1PHC		Visible Emission Observed (like Method 22)(while the stack is running)
Baghouse	C1PLC		Visible Emission Observed (like Method 22)(while the stack is running)
Tank	C1NB		# of batches
Tank	C1NC		# of batches
Product System	C1NG, C1NH		# of batches
Tank	C1PA		Monthly additions
Process System	C1PN		Maximum hourly rate
Hopper	C1PM		Rework monthly production
Product System	C1PP, C1PQ, C1PR, C1PS		Max. fill weight
Tank	C1NF		Monthly fills

Attachment B
Monthly Emissions

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

Current month:

Emission Pt ID	Equipment ID	Monthly Emissions (lb)															
		$PM_{2.5}$		Nitric Acid		NO_x		VOC		ODC		PM_{10}		Acetonitrile		HF	
		max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month
C1FCE	C1FC																
C1FEE	C1FA, FB, FD, FE, GN, FH																
C1FFE	C1FF																
C1FGE	C1FG																
C1FQE	C1FQ, GH																
C1FSE	C1FS, C1FK																
C1FUE	C1FU																
C1FVE1	C1FV																
C1FVE2	C1FV																
C1FWE	C1FW																
C1GAE	C1GA																
C1GBE	C1GB																
C1GCE	C1GC																
C1GDE	C1GD																
C1GJE	C1GJ																
C1GPE	C1GP, GS, GT																
C1GQE	C1GQ																
C1GRE	C1GR and C1PU																
C1GVE	C1GV																
C1GXE	C1GX																
C1MGE	C1MG																
C1NPE	CINP																
Area	C1FW																
Area	C1GK																
C1NBE	C1NB																
C1NCE	C1NC																
C1NDE	C1ND																

Emission Pt ID	Equipment ID	Monthly Emissions (lb)															
		$PM_{2.5}$		Nitric Acid		NO_x		VOC		ODC		PM_{10}		Acetonitrile		HF	
		max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month
C1NEE	C1NE																
C1NFE	C1NF																
C1NGE (combined)	C1NG, C1NH, C1PA																
C1PCE	C1PC, C1PD, C1PE, C1PF																
C1PGE	C1PG, C1PB																
C1PHE	C1PH																
C1PIE	C1PI																
C1PKE	C1PK																
C1PJE	C1PJ																
C1PME	C1PM																
C1PLE	C1PL																
C1PNE	C1PN																
C1POE	C1PO																
C1PPE, C1PQE, C1PRE, C1PSE (combined)	C1PP, C1PQ, C1PR, C1PS																
C1PTE	C1PT																
C1QBE	C1QB, C1QC, C1QD																

Attachment C
Annual Emissions

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

Current month:

Emission Pt ID	Equipment ID	VOC Emissions (lb)												
														12 Month Total
C1FCE, GAE, GBE, GCE	C1FC, GA, GB, GC													
C1FFE, FGE	C1FF, FG													
C1FQE	C1FQ, GH													
C1FSE	C1FS													
C1FVE1	C1FV													
C1FVE2	C1FV													
C1FWE	C1FW													
C1GDE	C1GD													
C1GXE	C1GX													
C1GZE	C1GZ													
C1MBE	C1MB													
C1NPE	C1NP													
Area	C1FW													
Area	C1GK													
C1NBE	C1NB													
C1NCE	C1NC													
C1NGE (combined)	C1NG, C1NH, C1PA													
C1PCE	C1PC, C1PD, C1PE, C1PF													
C1PGE	C1PB, C1PG													
C1PNE	C1PN													
C1GRE	C1GR and C1PU													
C1POE	C1PO													
C1PPE, C1PQE, C1PRE, C1PSE (combined)	C1PP, C1PQ, C1PR, C1PS													

Emission Pt ID	Equipment ID	VOC Emissions (lb)												
														12 Month Total
C1PTE	C1PT													
C1QEE	C1QE													

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

Attachment C
Annual Emissions

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

Current month:

Emission Pt ID	Equipment ID	PM_{10} Emissions (lb)												
														12 Month Total
C1FCE, GAE, GBE, GCE	C1FC, GA, GB, GC													
C1GDE	C1GD													
C1FEE	C1FE													
C1FFE, FGE	C1FF, FG													
C1FSE	C1FS, C1FK													
C1FUE	C1FU													
C1FVE1	C1FV													
C1GJE	C1GJ													
C1GPE	C1GS, GT													
C1GQE	C1GQ													
C1GVE	C1GV													
C1GZE	C1GZ													
C1MGE	C1MG													
C1PGE	C1PG													
C1PHE	C1PH													
C1PIE	C1PI													
C1PLE	C1PL													
C1PME	C1PM													
C1PNE	C1PN													
C1POE	C1PO													
C1PPE, C1PQE, C1PRE, C1PSE	C1PP, C1PQ, C1PR, C1PS(combined)													

Attachment C
Annual Emissions

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

Current month:

Emission Pt ID	Equipment ID	$PM_{2.5}$ Emissions (lb)												12 Month Total
C1POE	C1PO													
C1PPE, C1PQE, C1PRE, C1PSE (combined)	C1PP, C1PQ, C1PR, C1PS (combined)													

Emission Pt ID	Equipment ID	HF Emissions (lb)												12 Month Total
C1FEE	C1FA, FB, FD, FE													
C1FVE2	C1FV													
C1GRE	C1GR													
C1PNE	C1PN													
C1GZE	C1GZ													
C1MLE	C1ML													

Emission Pt ID	Equipment ID	Acetonitrile Emissions (lb)												
														12 Month Total
C1FQE	C1FQ													
C1FWE	C1FW													
C1GDE	C1GD													
Area	C1FW													
Area	C1GK													

Emission Pt ID	Equipment ID	Nitric Acid (lb)												
														12 Month Total
C1NFE	C1NF													
C1PGE	C1PG													
C1PTE	C1PT													
C1PCE	C1PC													
C1NFE	C1NF													

Emission Pt ID	Equipment ID	NO_x (lb)												
														12 Month Total
C1MLE	C1ML													

Appendix B: R13-1953 Attachments (C2 Area)

Attachment A - Monthly Recordkeeping (Equipment)

Chemours 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 System #1
		# of times system deinventoried through System #2
C2EP		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DX – tank		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DX – bottom valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DX – top valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DY – tank		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DY – bottom valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DY – top valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DR		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2EE		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
Facility		# of completed batches
Facility		# of completed GenX batches
C2DA		# of completed dispersion batches
C2DA		# of GenX dispersion batches
C2DT		Max pph held for one hour during the month
C2DW		max pph held for one hour during the month
C2EH		max pph held for one hour during the month
C2DT, C2DW, C2EH		max pph rate of all TDD for one hour during the month
C2DS		pounds of flake to flake packout
C2EN		max pph for month conveyed from TDD to compactor
C2ER		max RPM held for one hour
C2ER		total rework weight for month
C2EV		# of makeup cartridges used
		# of ink cartridges used
		# of wash bottles used

Attachment B - Monthly Emissions
Chemours Washington Works – Area (C2) – Permit R13-1953

Current Month:

Emission Point ID	Equipment ID	VOC		ODC		PM_{10}		HF		Toluene lb/month	Total HAPs lb/month
		max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month		
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX										
C2DHE	C2DH										
C2DKE	C2DK										
C2DSE	C2DS										
C2DTE	C2DW, C2EH										
C2EFE	C2EJ, C2EF										
C2EGE	C2EG										
C2EJE	C2EJ, C2DG										
C2ENE	C2EN										
C2ERE	C2ER										
C2ETE	C2ET										
C2EUE	C2DO, C2EU										
C2EVE	C2EV										
C2KDE	C2KD										
C2KOE1	C2KO										
C2KPE	C2KP										
C2KUE	C2KU										
C2KLE	C2KL										
C2KNE	C2KN										
C2EBE	C2EA1, C2EA2, C2EB2, C2EB1, C2KJ										

Attachment C – Annual Emissions
Chemours Washington Works – Area (C2) – Permit R13-1953

Current Month:

Emission Point ID	Equipment ID	VOC Emissions (lb)												12 Month Total
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX													
C2DHE	C2DH													
C2DKE	C2DK													
C2EFE	C2EJ, C2EF													
C2EGE	C2EG													
C2EJE	C2EJ, C2DG													
C2ERE	C2ER													
C2ETE	C2ET													
C2EVE	C2EV													
C2KDE	C2KD													
C2DTE	C2DW, C2EH													
C2EBE	C2EA1, C2EA2, C2EB2, C2EB1, C2KJ													
Totals														

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

Attachment C – Annual Emissions
Chemours Washington Works – Area (C2) – Permit R13-1953

Current Month:

Emission Point ID	Equipment ID	PM_{10} Emissions (lb)												
														12 Month Total
C2DKE	C2DK													
C2DSE	C2DS													
C2DTE	C2DW, C2EH													
C2EGE	C2EG													
C2ENE	C2EN													
C2ERE	C2ER													
C2EUE	C2DO, C2EU													
C2KPE	C2KP													
C2KUE	C2KU													
C2DHE	C2DH													
C2KLE	C2KL													
C2KNE	C2KN													
C2EBE	C2EA1, C2EA2, C2EB2, C2EB1, C2KJ													
Totals														

Attachment C – Annual Emissions
Chemours Washington Works – Area (C2) – Permit R13-1953

Current Month:

Emission Point ID	Equipment ID	HF Emissions (lb)												12 Month Total
C2DHE	C2DH													
C2ERE	C2ER													
C2ETE	C2ET													
C2KDE	C2KD													
C2KOE1	C2KO													
C2KUE	C2KU													
C2EBE	C2EA1, C2EA2, C2EB2													
Totals														

Emission Point ID	Equipment ID	Total HAPs (lb)												12 Month Total
C2EVE	C2EV													
C2EFE	C2EF, C2EJ													
C2EJE	C2DG, C2EJ													
C2DHE	C2DH													
C2EBE	C2EA1, C2EA2, C2EB2													
Totals														

Attachment D – Monthly Recordkeeping – Control Devices and Inherent Process Devices
Chemours 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	

Appendix C: R13-2391 Attachments (C3 Area)

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

Month:_____ **Year:** _____

Activity or Equipment Description	Equipment ID No.	Monthly Monitoring	
		Value Recorded	Parameter Monitored
C3 Line 3 Batches Reacted	Facility		# of batches reacted on Line 3
C3 Line 2 Batches Reacted	Facility		# of batches reacted on Line 2
Product A Trailers	Facility		# of Product A trailers loaded
Product A Trailers (T71MC Down)	Facility		# of Product A trailers loaded
Product B Trailers	Facility		# of Product B trailers loaded
Product B Trailers (T71MC Down)	Facility		# of Product B trailers loaded
Product C Trailers	Facility		# of Product C trailers loaded
Product C Trailers (T71MC Down)	Facility		# of Product C trailers loaded
Cleaning Reactor Line 2	C3HI		# of times L2 Reactor cleaned
Cleaning Reactor Line 3	C3HO		# of times L3 Reactor cleaned
Tank	C3HN		# of tank cleanings
Tank	C3IL		# of tank cleanings
Tank	C3HS		# of tank cleanings
Tank	C3HT		# of tank cleanings
Tank	C3IH		# of tank cleanings
Tank	C3ID		# of tank cleanings
Tank	C3IE		# of tank cleanings
Tank	C3HX		# of tank cleanings
Tank	C3IX		# of tank cleanings
Tank	C3IY		# of tank cleanings
Maximum Value for Changing Out Scrubber Fluid	C3HGC (Line 2)		Maximum Value
Number of Times Calculated Variable Exceeded ‘63’	C3HGC (Line 2)		# of Times
Maximum Value for Changing Out Scrubber Fluid	C3HPC (Line 3)		Maximum Value
Number of Times Calculated Variable Exceeded >63’	C3HPC (Line 3)		# of Times

ATTACHMENT B
TELOMERS AREA (C3)
Permit R13-2391
MONTHLY EMISSIONS RECORD

Month: _____ **Year:** _____

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

ATTACHMENT C
Permit R13-2391
Annual Emissions Log

Current Month: _____

Table C.1. – VOC Emissions (pounds)

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

ATTACHMENT C
Permit R13-2391
Annual Emissions Log

Current Month: _____

Table C.2. – HF Emissions (pounds)

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

Table C.3. – PM10 Emissions (pounds)

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

Table C.4. – Annual Production (batches)

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

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

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

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

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

Thermal Converter Feed Rates:

Equipment	Equip. ID	T/C Operating	T/C not Operating	Total		Max /hr
		Max/hr				Units
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
L3 Extruder Vent	C2ES	N/A		N/A	N/A	lb feed
Telomers Vent Accumulator	C3IZ					
Heels Column Process Vent	T4XK			**	**	lb OH
Heels 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

Chemours Washington Works
Teflon Monomers Area

Recordkeeping for Maintenance Emissions

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

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

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

ATTACHMENT C

Chemours Washington Works
Teflon Monomers Area
Recordkeeping for Control Devices

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

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

ATTACHMENT D – Monthly Process Emissions

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

Emission Point Name	Emission Pt. ID	Monthly Process HAP Emissions		
		Max lb/hr	Limit	lb/month
North Tank Farm Scrubber	T2ERE			
Storage Tank	T4GBE			
Brine System Losses	T7XIE			
Portable Container Facility	T7EME			
Thermal Converter Stack - Process	T7IME			
Waste Acid Neutralization Tanks	T7JDE			
South Central Vent Stack - Process	T7XIE			
Total Monthly Process Emissions				

Monthly Maintenance Emissions

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

ATTACHMENT E - Annual Emissions

Annual Emissions - Running 12 Month Totals

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

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

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

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

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

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

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

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

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

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

ATTACHMENT F - Furnace Log

Date	Furnace	Startup	Shutdown

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

ATTACHMENT G - Malfunction Log

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

ATTACHMENT H - Odor Log

Date	Cause	Actions Taken

Appendix E: R13-3223 Attachment A for the Fluoropolymer Production Area

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
C1-P Area	C1FW-3	System Deinventory	None	VOC	R13-2365	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	
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	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	

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
C2EJE	C2EP-1	Ingred. System Maintenance	None	VOC	R13-1953	No	Yes	No	
C3 Area	Section C	Brine System - LDAR	None	TAP-M		No	No	Yes	Consolidated with T Area Brine System
C3HGE	C3HI	Reactor	None	VOC	R13-2391	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	
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	
T6IUE	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.

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
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	
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.
Area	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

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
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	

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
T7XIE	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	
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	

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Affected R13 Permit	Included in Original R21 RACM Plan	Currently Subject to:		Other Applicable Regulations - Citation (MACT/BACT/NSPS/NESHAP etc.)
							R21	R27	
T7XIE	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	
TAAE	T7AA	Brine System Tank	None	TAP-M	R13-1823	No	No	Yes	40 CFR 63.2346 (OLD MACT)

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

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

Note #3 - The WWTP located at Washington Works does not receive any Group 1 Streams as defined by the rule. Hence the applicability of 40 CFR 63.135 and 40 CFR 63.145 are very, very limited.

Note #4 – The Affected R13 Permit refers to the most current version of that Permit.

Appendix F: R13-3645 Attachment (C4 Area)

ATTACHMENT A – MONTHLY EMISSIONS

Chemours Washington Works – Area (C4) – Permit R13-3645

Current Month:

Emission Point ID	Equipment ID	VOC		ODC		PM_{10}		HF		Total HAPs	
		max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month
C4AAE	C4AA Resin Hopper										
C4AAE	C4AB Reclaim Hopper										
C4ACE	C4AC Extruder										
C4ACE	C4AD Treater										
C4AEE	C4AE Cleaner										