Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE
4949-A Cox Road, Glen Allen, Virginia 23060
(804) 527-5020 FAX (804) 698-4178
www.deq.virginia.gov

Andrew R. Wheeler
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

James J. Golden
Regional Director

DRAFT, 2022

Mr. Simon J. Shepherd
Plant Manager
DuPont Teijin Films
3600 Discovery Drive
Chesterfield, VA 23836

Location: Chesterfield County
Registration No.: 50418

Dear Mr. Shepherd:

Attached is a renewal Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning DRAFT, 2022.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on January 28, 2022 and solicited written public comments by placing a newspaper advertisement in the *Richmond Times-Dispatch* newspaper on March 4, 2022. The thirty-day required comment period, provided for in 9VAC 5-80-270 expired on April 4, 2022.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve DuPont Teijin Films – Hopewell Site of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact the regional office at (804) 527-5020.

Sincerely,

James J. Golden
Regional Director

JJG/clm/50418-24 DuPont Teijin Films - Hopewell Site Title V Renewal

Attachment: Permit

cc: Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)
Manager/Inspector, Air Compliance (electronic file submission)

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Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee/Facility Name:	DuPont Teijin Films – Hopewell Site
Facility Location:	3600 Discovery Drive Chester, Virginia 23836
Registration Number:	50418
Permit Number:	PRO50418

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Pages 23 through 60)

DRAFT, 2022
Effective Date

DRAFT minus 1, 2027
Expiration Date

_____
Regional Director

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Facility Information

Permittee
DuPont Teijin Films
3600 Discovery Drive
Chester, Virginia 23836

Responsible Official
Mr. Simon J. Shepherd
Plant Manager

Facility
DuPont Teijin Films – Hopewell Facility
3600 Discovery Drive
Chester, Virginia 23836

Contact Person
Ms. Nicole Kruth
Regional SHE Manager
(804) 950-9533

County-Plant Identification Number: 51-041-00073

Facility Description: NAICS 326113- Film, plastics (except packaging), manufacturing and NAICS 325211 Polyethylene-terephthalate (PET) resins manufacturing. DuPont Teijin Films Division operates a polymer film manufacturing facility in Chesterfield County, Virginia which produces polyester, PET, film as a final product which is used in many diverse applications. The manufacturing operations are divided into two distinct areas, a polymer plant and a film plant. PET polymer is produced in four separate batch process lines in a two-step batch reaction by the Terephthalic Acid (TA) process at the polymer plant. In addition to polymer produced at the plant for the purpose of manufacturing film, polymer chip is also brought into the plant by rail. The film plant is comprised of seven unique film lines labeled Film Lines 40 and 42 through 47. The basic process for each line is similar, manufacturing bulk polyester film rolls from virgin polymer chip, but there are key differences in equipment and equipment capacity, which allow different products to be run on each line.

Significant Emission Units

Equipment to be operated consists of:

Fuel Burning Equipment - Boilers

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
1001	1001	Cleaver Brooks Model DL52E distillate oil/natural gas-fired boiler	51 MMBtu/hr	N/A	N/A	N/A	N/A
1002	1002	Cleaver Brooks Model DL52E distillate oil/natural gas-fired boiler	51 MMBtu/hr	N/A	N/A	N/A	N/A
1003	1003	Cleaver Brooks Model DL48E distillate oil/natural gas-fired boiler	47 MMBtu/hr	N/A	N/A	N/A	2/25/1988
1004	1004	Struther-Wells distillate oil/natural gas-fired Dowtherm heater	14 MMBtu/hr	N/A	N/A	N/A	N/A
1005	1005	Struther-Wells distillate oil/natural gas-fired Dowtherm heater	14 MMBtu/hr	N/A	N/A	N/A	N/A

Fuel Burning Equipment – Engines

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
1007	1007	East Fire Water Pump (Cummins Diesel - installed 1971)	340 hp	N/A	N/A	N/A	N/A
1008	1008	West Fire Water Pump (Cummins Diesel - installed 1971)	340 hp	N/A	N/A	N/A	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
1009	1009	North Fire Water Pump (Cummins - installed 1995)	340 hp	N/A	N/A	N/A	N/A
1010	1010	Emergency Generator (Kohler model 15ROY61 - installed 2003)	27.4 hp	N/A	N/A	N/A	N/A

Polymer Plant Process Equipment

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
0101	0100	**L1 Polymer Plant** (consisting of two-stage polymer reactor system with demister, including but not limited to one EI batch reactor (with a total operating vapor space of 190 cubic feet), one capacity vessel, one methanol/ethylene glycol distillation column, one autoclave batch reactor, and two condensers/heat exchangers)	1000 gals/batch (raw materials)	Polymer Lines 1-4 Scrubber	0100	VOC, HAP	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
0102	0100	**L2 Polymer Plant** (consisting of two-stage polymer reactor system with demister, including but not limited to one EI batch reactor (with a total operating vapor space of 190 cubic feet), one capacity vessel, one methanol/ethylene glycol distillation column, one autoclave batch reactor, and two condensers/heat exchangers)	1000 gals/batch (raw materials)	Polymer Lines 1-4 Scrubber	0100	VOC, HAP	9/3/2020
0103	0100	**L3 Polymer Plant** (consisting of two-stage polymer reactor system with demister, including but not limited to one EI batch reactor (with a total operating vapor space of 190 cubic feet), one capacity vessel, one methanol/ethylene glycol distillation column, one autoclave batch reactor, and two condensers/heat exchangers)	1000 gals/batch (raw materials)	Polymer Lines 1-4 Scrubber	0100	VOC, HAP	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
0104	0100	**L4 Polymer Plant** (consisting of two-stage polymer reactor system with demister, including but not limited to one EI batch reactor (with a total operating vapor space of 190 cubic feet), one capacity vessel, one methanol/ethylene glycol distillation column, one autoclave batch reactor, and two condensers/heat exchangers)	1000 gals/batch (raw materials)	Polymer Lines 1-4 Scrubber	0100	VOC, HAP	9/3/2020
0110	Fugitive	One (1) Hotwell	12,300 gallons	N/A	N/A	N/A	N/A
0115	0115	L1 Polymer Chip Blender	1.25 tons/hr	Baghouses, Young Industries 3353	0115	PM	N/A
0116	0116	L2 Polymer Chip Blender	1.25 tons/hr	Baghouses, Young Industries 3353	0116	PM	N/A
0117	0117	L3 Polymer Chip Blender	1.25 tons/hr	Baghouses, Young Industries 3353	0117	PM	N/A
0118	0118	L4 Polymer Chip Blender	1.25 tons/hr	Baghouse, Flex-Kleen 58-CT-14-III	0118	PM	9/3/2020
0119D	0119D	L4 Polymer Hold Up Hopper	1.25 tons/hr	Baghouse, Flex-Kleen 58 CT 18 III	0119D	PM	9/3/2020
0120	0120	One (1) Polymer Plant Process Contact Cooling Tower	600 gallons per minute	N/A	N/A	N/A	N/A
0122	0122	Multi-use Storage Tank (Crude EG/Wastewater)	13,000 gallons	N/A	N/A	N/A	9/3/2020
0123	0123	Multi-use Storage Tank (Crude EG/Wastewater)	13,000 gallons	N/A	N/A	N/A	9/3/2020
0126-0128	0126-0128	Three (3) Crude Glycol Tanks	21,300 gal each	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
0151, 0152	0151, 0152	Two (2) Ethylene glycol stills and associated ejector vents	5,000 gal each	Non-contact condensers	0151, 0152	VOC	N/A
0190	Fugitive	Polymer Plant Equipment Leak Components	N/A	N/A	N/A	N/A	N/A
0191	Fugitive	Dowtherm Equipment Leak Components	N/A	N/A	N/A	N/A	N/A
1028	Fugitive	One (1) Effluent pit	18,000 gallons	N/A	N/A	N/A	N/A
1029	Fugitive	One (1) Collection Sump	3,800 gallons	N/A	N/A	N/A	N/A
1051	1051	One (1) Main Cooling Tower	15,700 gallons per minute	N/A	N/A	N/A	N/A
1061	Fugitive	One (1) Equalization Basin	180,000 gallons	N/A	N/A	N/A	N/A
1062	Fugitive	One (1) Bio-treatment Plant(Two Aeration Basins; 220,000 gallons each)	440,000 gallons	N/A	N/A	N/A	N/A

Railroad Car Chip Unloading Operations

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
2040	2040a	No. 1 Railroad Car Chip Unloading Station	7.5 tons/hr	Baghouse, Ultra Industries, #CB-24-84-ARR III	2040a	Particulate	9/3/2020
	2040b	No. 1 Railroad Car Chip Unloading Station	7.5 tons/hr	Baghouse, Flex-Kleen 84CTBC	2040b	Particulate	9/3/2020
2041	2041	No. 2 Railroad Car Chip Unloading Station	7.5 tons/hr	Baghouse, Ultra Industries #CB-24-84-ARR III	2041	Particulate	9/3/2020

Polymer Chip House Vacuum System

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
2050	2050	Polymer Chip House Vacuum System	0.1 tons/hr	Baghouse, Hi-Vac 840	2050	Particulate	N/A

Virgin Chip Bunkers

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
2001	2001	Virgin Chip Bunker #1	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2002	2002	Virgin Chip Bunker #2	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2003	2003	Virgin Chip Bunker #3	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2004	2004	Virgin Chip Bunker #4	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2005	2005	Virgin Chip Bunker #5	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2006	2006	Virgin Chip Bunker #6	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2007	2007	Virgin Chip Bunker #7	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2008	2008	Virgin Chip Bunker #8	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2009	2009	Virgin Chip Bunker #9	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2010	2010	Virgin Chip Bunker #10	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2011	2011	Virgin Chip Bunker #11	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2012	2012	Virgin Chip Bunker #12	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2013	2013	Virgin Chip Bunker #13	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2014	2014	Virgin Chip Bunker #14	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2015	2015	Virgin Chip Bunker #15	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2016	2016	Virgin Chip Bunker #16	7.5 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
2017	2017	Virgin Chip Bunker #17	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2018	2018	Virgin Chip Bunker #18	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2019	2019	Virgin Chip Bunker #19	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2020	2020	Virgin Chip Bunker #20	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2021	2021	Virgin Chip Bunker #21	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2022	2022	Virgin Chip Bunker #22	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2023	2023	Virgin Chip Bunker #23	7.5 tons/hr	N/A	N/A	N/A	9/3/2020
2024	2024	Virgin Chip Bunker #24	7.5 tons/hr	N/A	N/A	N/A	9/3/2020

Film Line 40 – L40

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4001	4001	L40 Virgin Head Hopper Cyclone	11.3 ton/hr	N/A	N/A	N/A	9/3/2020
4002	4002	L40 Virgin Head Hopper Vent	11.3 ton/hr	N/A	N/A	N/A	9/3/2020
4003	4003	L40 Reclaim Head Hopper Cyclone	11.3 ton/hr	N/A	N/A	N/A	9/3/2020
4004	4004	L40 Reclaim Head Hopper Vent	11.3 ton/hr	N/A	N/A	N/A	9/3/2020
4011	4011	L40 Crystallizer Filter Receiver	1.75 tons/hr	Baghouse, Young Industries 8813	4011	Particulate	9/3/2020
4012	4012	L40 Main Dryer System	1.75 tons/hr	Baghouse, Flex Kleen	4012	Particulate	9/3/2020
4021	4021	L40 Casting Drum (no external vent)	1.75 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4031	4031	L40 Stenter Oven - Neutral Zone	1.75 tons/hr	N/A	N/A	N/A	9/3/2020
4032	4032	L40 Stenter Oven - Fume Exhaust	1.75 tons/hr	N/A	N/A	N/A	9/3/2020
4033	4033	L40 Stenter Oven - Clip Cooling Exhaust	1.75 tons/hr	N/A	N/A	N/A	9/3/2020
4034	4034	L40 Stenter 3rd Crystallizer	1.75 tons/hr	N/A	N/A	N/A	9/3/2020
4035	4035	L40 Stenter Cooling Zone	1.75 tons/hr	N/A	N/A	N/A	9/3/2020

Film Line 42 – L42

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4201a	4201a	L42 Virgin Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4201b	4201b	L42 Virgin Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4203a	4203a	L42 Reclaim Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4203b	4203b	L42 Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4204	4204	L42 Master Batch Dryer Vacuum Loader Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4205a	4205a	L42 Master Batch Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4205b	4205b	L42 Master Batch Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4211	4211	L42 Main Dryer System - Rotary Type Chip Crystallization Dryer	1.25 tons/hr	N/A	N/A	N/A	9/3/2020
4212	4212	L42 Master Batch Dryer	1.25 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4221	4231	L42 Casting Drum	1.25 tons/hr	N/A	N/A	N/A	9/3/2020
4231	4231	L42 Stenter - Neutral Zone	1.25 tons/hr	N/A	N/A	N/A	9/3/2020
4232	4232	L42 Stenter - Fume Exhaust	1.25 tons/hr	N/A	N/A	N/A	9/3/2020
4261	4261a	L42 Air Classifier	1.25 tons/hr	Baghouse, Flex-Kleen 84CT-I8	4261a	Particulate	9/3/2020
	4261b			Baghouse, Young Industries	4261b	Particulate	9/3/2020
4271	4271	L42/L43 House Vacuum System	0.009 tons/hr	Baghouse, Hoffman GS33481	4271	Particulate	9/3/2020

Film Line 43 – L43

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4301a	4301a	L43 Virgin Head Hopper #1 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4301b	4301b	L43 Virgin Head Hopper #1 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4303a	4303a	L43 Reclaim Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4303b	4303b	L43 Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4304	4304	L43 Virgin Head Hopper #2 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4305a	4305a	L43 Co-extrusion Head Hopper #1 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4305b	4305b	L43 Co-extrusion Head Hopper #1 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4306	4306	L43 Co-extrusion Head Hopper #2	11.3 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4307	4307	L43 Co-extrusion Chip Convey System	1.25 tons/hr	Baghouse, Flex-Kleen 56 CTBS8 III	4307	Particulate	9/3/2020
4308	4308	L43 Master Batch Head Hopper Vacuum Loader Cyclone	4.0 tons/hr	N/A	N/A	N/A	9/3/2020
4309	4309	L43 Master Batch Dryer Vacuum Loader Cyclone	4.0 tons/hr	N/A	N/A	N/A	9/3/2020
4311	4311	L43 Main Dryer System - Rotary Type Chip Crystallization Dryer	1.25 tons/hr	N/A	N/A	N/A	9/3/2020
4313	4313	L43 Co-extrusion Dryer System	1.25 tons/hr	Baghouse, Flex-Kleen 58BVBC-9 III	4313	Particulate	9/3/2020
4314	4314	L43 Main Extruder Vacuum Pump	2.5 tons/hr	Baghouse, Sprout Waldorn	4314	Particulate	9/3/2020
4322	4322a	L43 Casting Drum	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
	4322b	L43 Casting Drum Air Horn Exhaust		N/A	N/A	N/A	9/3/2020
4331	4331	L43 Stenter Oven - Clip Cooling Zone	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4332	4332	L43 Stenter Oven – 1st Preheat	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4333	4333	L43 Stenter Oven - Neutral Zone	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4335	4335	L43 Stenter Oven - Cooling Zone	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4372	4372	L43 House Vacuum System	0.006 tons/hr	Baghouse, Hoffman HPC 10-58	4372	Particulate	9/3/2020

Film Line 44 – L44

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4401	4401	L44 Virgin and Reclaim Head Hoppers Cyclone System	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4402	4402	L44 Virgin Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4403	4403	L44 Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4404a	4404a	L44 Co-Extrusion Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4404b	4404b	L44 Co-Extrusion Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4405a	4405a	L44 Master Batch Head Hopper #1 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4405b	4405b	L44 Master Batch Head Hopper #1 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4406	4606	L44 Air Classifier (vents to common baghouse located on Line 46)	11.3 tons/hr	Baghouse, Flex-Kleen 100-WSBS-100 IIIG	4606	Particulate	9/3/2020
4407a	4407a	L44 Master Batch Head Hopper #2 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4407b	4407b	L44 Master Batch Head Hopper #2 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4408a	4408a	L44 Master Batch Head Hopper #3 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4408b	4408b	L44 Master Batch Head Hopper #3 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4409a	4409a	L44 Master Batch Head Hopper #4 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4409b	4409b	L44 Master Batch Head Hopper #4 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4411	4411	L44 Main Dryer System	2.05 tons.hr	Baghouse, Flex Kleen 58-CT-14-III	4411	Particulate	9/3/2020
4412	4412	L44 Co-extrusion Dryer System	2.05 tons.hr	Baghouse, Flex Kleen 58CTBC-8-III	4412	Particulate	9/3/2020
4422	4422	L44 Casting Drum	2.05 tons.hr	N/A	N/A	N/A	9/3/2020
4431	4431	L44 Stenter - Preheat Make-up Exhaust	2.05 tons.hr	N/A	N/A	N/A	9/3/2020
4432	4432	L44 Stenter - Fume Exhaust	2.05 tons.hr	N/A	N/A	N/A	9/3/2020
4433	4433	L44 Stenter - Neutral Zone Exhaust	2.05 tons.hr	N/A	N/A	N/A	9/3/2020
4434	4434	L44 Stenter - Clip Cooling Exhaust	2.05 tons.hr	N/A	N/A	N/A	9/3/2020
4435	4435	L44 Stenter - 6th Crystallizer	2.05 tons.hr	N/A	N/A	N/A	9/3/2020
4461	4461	L44 Cutters	1.025 tons/hr	Baghouse, Flex-Kleen #100-WRC-144-III-G	4461	Particulate	9/3/2020
4474	4474	L44 Global Baghouse and House Vacuum System	0.021 tons/hr	Baghouse, Hoffman 40 x 166	4474	Particulate	9/3/2020

Film Line 45 – L45

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4500a	4500a	L45 Virgin Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4500b	4500b	L45 Virgin Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4502a	4502a	L45 Reclaim Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4502b	4502b	L45 Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4504a	4504a	L45 Master Batch Head Hopper #1 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4504b	4504b	L45 Master Batch Head Hopper #1 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4505a	4505a	L45 Master Batch Head Hopper #2 Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4505b	4505b	L45 Master Batch Head Hopper #2 Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4506a	4506a	L45 Co-extrusion Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4506b	4506b	L45 Co-extrusion Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4507a	4507a	L45 Master Batch Head Hopper #3 Cyclone	4.0 tons/hr	N/A	N/A	N/A	9/3/2020
4507b	4507b	L45 Master Batch Head Hopper #3 Vent	4.0 tons/hr	N/A	N/A	N/A	9/3/2020
4508a	4508a	L45 Master Batch Head Hopper #4 Cyclone	4.0 tons/hr	N/A	N/A	N/A	9/3/2020
4508b	4508b	L45 Master Batch Head Hopper #4 Vent	4.0 tons/hr	N/A	N/A	N/A	9/3/2020
4511	4511	L45 Main Dryer System	2.5 tons/hr	Baghouse, Flex-Kleen 58 CTBG 14 III	4511	Particulate	9/3/2020
4512	4512	L45 Co-extrusion Dryer System	2.5 tons/hr	Baghouse, Flex-Kleen 58 BVBS-9 III	4512	Particulate	9/3/2020
4513	4513	L45 Master Batch Dryer System	2.5 tons/hr	Baghouse, Young Ind. VC60-9-32	4513	Particulate	9/3/2020
4514	4514	L45 Main Extruder Vacuum Pump	2.5 tons/hr	Cartridge Filter, SIDCO	4514	Particulate	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4522	4522	L45 Casting Drum (no external vent)	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4531	4531	L45 Stenter Oven - Fume and Neutral Zone	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4532	4532	L45 Stenter Oven - Cooling Zone	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4533	4533	L45 Stenter Oven - Clip Cooling Zone	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4534	4534	L45 Stenter Oven - Preheat Oven 1	2.5 tons/hr	N/A	N/A	N/A	9/3/2020
4561	4561	L45 Cutters	1.25 tons/hr	Baghouse, Flex-Kleen 84 WRB- 64 IIIG	4561	Particulate	9/3/2020
4571	4571	L40/L45 House Vacuum System	0.011 tons/hr	Baghouse, Hoffman 30695	4571	Particulate	9/3/2020

Film Line 46 – L46

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4601a	4601a	L46 Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4601b	4601b	L46 Virgin Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4601c	4601c	L46 Master Batch Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4601d	4601d	L46 Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4601e	4601e	L46 Co-extrusion Virgin Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4601f	4601f	L46 Co-extrusion Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4601g	4601g	L46 Auxiliary Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	N/A
4606	4606	L46 Air Classifier	11.3 tons/hr	Baghouse, Flex-Kleen 100-WSBS-100 IIIG	4606	Particulate	9/3/2020
4611	4611	L46 Main and Co-extrusion Dryer Systems	3.7 tons/hr	Baghouse, Flex-Kleen 58CT-14	4611	Particulate	9/3/2020
4621	4621	L46 Casting Drum (no external vent)	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4631	4631	L46 Stenter Oven - Preheat Oven Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4632	4632	L46 Stenter Oven - Fume and Neutral Zone	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4633	4633	L46 Stenter Oven - Clip Cooling Zone	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4634	4634	L46 Stenter Oven - Oven Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4661	4661a	L46 Cutters	1.85 tons/hr	Baghouse, Flex-Kleen No. 100 MRC-144	4661a	Particulate	9/3/2020
	4661b			Baghouse, Flex-Kleen 84 WRBC-48	4661b	Particulate	9/3/2020
4671	4671	L46 House Vacuum System	0.034 tons/hr	Baghouse, Hoffman 36 x 144	4671	Particulate	9/3/2020

Film Line 47 – L47

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4701a	4701a	L47 Virgin Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4701b	4701b	L47 Virgin Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4703a	4703a	L47 Reclaim Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4703b	4703b	L47 Reclaim Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4705a	4705a	L47 Master Batch Head Hopper Cyclone	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4705b	4705b	L47 Master Batch Head Hopper Vent	11.3 tons/hr	N/A	N/A	N/A	9/3/2020
4711	4711	L47 Main Dryer System	3.7 tons/hr	Baghouse, Sprout Bauer CB-14-58	4711	Particulate	9/3/2020
4712	4712	L47 Main Extruder Vacuum Pump	3.7 tons/hr	Baghouse, Flex-Kleen 08 CTBC 8 III	4712	Particulate	9/3/2020
4721	4721	L47 Casting Drum (no external vent)	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4732	4732	L47 Stenter Oven - Neutral Zone Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4733	4733	L47 Stenter Oven - 1st Preheat Oven Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4734	4734	L47 Stenter Oven - Cooling Zone Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4735	4735	L47 Stenter Oven - Clip Cleaning Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4736	4736	L47 Stenter Oven - 4th Crystallizer & 1st Cooling Zone Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4737	4737	L47 Stenter Oven - Clip Cooling Exhaust	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4738	4738	L47 Stenter Oven - Clip Debris Removal System	3.7 tons/hr	N/A	N/A	N/A	9/3/2020
4761	4761	L47 Cutters	1.85 tons/hr	Baghouse, Sprout Bauer RS-144-100	4761	Particulate	9/3/2020
4763	4763	L47 House Vacuum System	0.009 tons/hr	Baghouse, Hoffman 36 x 120	4763	Particulate	9/3/2020

Film Coating Systems

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
4025	Fugitive	L40 Film Coating Application System (41 inch)	20 gallons/hr	N/A	N/A	N/A	9/3/2020
4225	Fugitive	L42 Film Coating Application System (41 inch)	20 gallons/hr	N/A	N/A	N/A	9/3/2020
4325	Fugitive	L43 Film Coating Application System (41 inch)	20 gallons/hr	N/A	N/A	N/A	9/3/2020
4425	Fugitive	L44 Film Coating Application System (41 inch)	20 gallons/hr	N/A	N/A	N/A	9/3/2020
4525	Fugitive	L45 Film Coating Application System (45 inch)	20 gallons/hr	N/A	N/A	N/A	9/3/2020
4625	Fugitive	L46 Film Coating Application System (80 inch)	30 gallons/hr	N/A	N/A	N/A	9/3/2020
4725	Fugitive	L47 Film Coating Application System (45 inch)	20 gallons/hr	N/A	N/A	N/A	9/3/2020

Primary Flake Bunkers

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6001-6004	6074	Primary Flake Bunkers #1 - #4	4.5 tons/hr	Baghouse, Young Industries 96 120	6074	Particulate	9/3/2020
	6078			Baghouse, Flex-Kleen 100 WRWC 80 III	6078	Particulate	9/3/2020
6005	6005	Primary Flake Bunker #5	4.5 tons/hr	Baghouse, Flex-Kleen WRC 48M36 II	6005	Particulate	9/3/2020
6006	6006	Primary Flake Bunker #6	4.5 tons/hr	Baghouse, Flex-Kleen 100 CT 64 II	6006	Particulate	9/3/2020
6007	6007	Primary Flake Bunker #7	4.5 tons/hr	Baghouse, Flex-Kleen 100 CT 64 II	6007	Particulate	9/3/2020
6008	6008	Primary Flake Bunker #8	4.5 tons/hr	Baghouse, Flex-Kleen 100 CT 64 II	6008	Particulate	9/3/2020
6009	6009	Primary Flake Bunker #9	4.5 tons/hr	Baghouse, Flex-Kleen 100 CT 64 II	6009	Particulate	9/3/2020
6010	6010	Primary Flake Bunker #10	4.5 tons/hr	Baghouse, Flex-Kleen WRC 48M36 II	6010	Particulate	9/3/2020
6011	6011	Primary Flake Bunker #11	4.5 tons/hr	Baghouse, Flex-Kleen 100 CT 64 II	6011	Particulate	9/3/2020
6012	6012	Primary Flake Bunker #12	4.5 tons/hr	Baghouse, Flex-Kleen 100 CT 64 II	6012	Particulate	9/3/2020
6013	6013	Primary Flake Bunker #13	4.5 tons/hr	Baghouse, Flex-Kleen WRC 48M36 II	6013	Particulate	9/3/2020
6014	6014	Primary Flake Bunker #14	4.5 tons/hr	Baghouse, Flex-Kleen WRC 48M36 II	6014	Particulate	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6015	6015	Primary Flake Bunker #15	4.5 tons/hr	Baghouse, Flex-Kleen 100 CTBC 64 II G	6015	Particulate	9/3/2020
6016	6016	Primary Flake Bunker #16	4.5 tons/hr	Baghouse, Flex-Kleen 100 CTBC 64 II G	6016	Particulate	9/3/2020
6017	6017	Primary Flake Bunker #17	4.5 tons/hr	Baghouse, Flex-Kleen 100 CTBC 64 II G	6017	Particulate	9/3/2020
6018	6018	Primary Flake Bunker #18	4.5 tons/hr	Baghouse, Flex-Kleen 100 CTBC 64 II G	6018	Particulate	9/3/2020
6019	6019	Primary Flake Bunker #19	4.5 tons/hr	Baghouse, Flex-Kleen 100 CTBC 64 II G	6019	Particulate	9/3/2020
6020	6020	Primary Flake Bunker #20	4.5 tons/hr	Baghouse, Flex-Kleen 100 CTBC 64 II G	6020	Particulate	9/3/2020
6021	6021	Primary Flake Bunker #21 (located at Film Line 45)	1.25 tons/hr	Baghouse, Ultra Industries CB 65 100 II G	6021	Particulate	9/3/2020

Intermediate Flake Bunkers

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6041	6041	Intermediate Flake Bunker #1	1.75 tons/hr	Baghouse, Flex-Kleen 100 CT 18 II	6041	Particulate	9/3/2020
6042	6042	Intermediate Flake Bunker #2	1.75 tons/hr	Baghouse, Flex-Kleen 100 CT 18 II	6042	Particulate	9/3/2020
6043	6043	Intermediate Flake Bunker #3	1.75 tons/hr	Baghouse, Flex-Kleen 100 CT 18 II	6043	Particulate	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6044	6044	Intermediate Flake Bunker #4	1.75 tons/hr	Baghouse, Flex-Kleen 100 CT 18 II	6044	Particulate	9/3/2020
6045	6045	Intermediate Flake Bunker #5	1.75 tons/hr	Baghouse, Ultra Industries CB 34 100 II G	6045	Particulate	9/3/2020

Scrap Bunker

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6051	6051	Scrap Bunker	1.75 tons/hr	Baghouse, Flex-Kleen 30 PCBL 24 II G	6051	Particulate	N/A

Flake Dryers

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6066 and 6073	6066	Flake Dryer #1 #4	1.75 tons/hr	Baghouse, Flex-Kleen 84 BVBC 16 III G	6066	Particulate	9/3/2020
	6073		1.75 tons/hr	Baghouse, Young Industries VC 96 54 84 Style B	6073	Particulate	9/3/2020
6067 and 6073	6067	Flake Dryer #2 and #3	1.75 tons/hr	Baghouse, Flex-Kleen 84 BVBC 16 III G	6067	Particulate	9/3/2020
	6073		1.75 tons/hr	Baghouse, Young Industries VC 96 54 84 Style B	6073	Particulate	9/3/2020

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6070	6070	Flake Dryer # 5	1.75 tons/hr	Baghouse, Flex-Kleen 84 BVBS 16 III	6070	Particulate	9/3/2020

Recycle House Vacuum Systems

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description **	PCD ID	Pollutant Controlled	Applicable Permit Date
6071	6071	Recovery House Vacuum System	0.1 tons/hr	Baghouse, Hoffman GS 22052B	6071	Particulate	N/A
6090	6090	Pelletizing Flake and Chip House Vacuum System	0.1 tons/hr	Baghouse, Hi-Vac 840	6090	Particulate	N/A

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

** The Pollution Control Device Description is provided for informational purposes only. Inclusion in the above table does not constitute a requirement that the devices be used.

Fuel Burning Equipment – Boilers and Dowtherm Heaters (ID#s 1001-1005)

1. **Fuel Burning Equipment Requirements - Boilers (ID#'s 1001-1002) and Dowtherm Heaters (ID#'s 1004-1005) - Limitations -** Emissions shall not exceed the limits specified below:

Particulate Matter	0.307 pounds per million BTU
Sulfur Dioxide	2.64 pounds per million BTU

   (9 VAC 5-80-110 and 9 VAC 5, Chapter 40, Article 8)

2. **Fuel Burning Equipment Requirements – Boilers (ID#'s 1001-1002) and Dowtherm Heaters (ID#'s 1004-1005) - Limitations -** Visible emissions from the emission units shall not exceed 20 percent opacity, except for one six-minute period in any one hour of not more than 60 percent opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
   (9 VAC 5-40-940, 9 VAC 5-80-110 and 9 VAC 5-40-20 A4)

3. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** Visible emissions shall not exceed 20 percent opacity, except for one six-minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
   (9 VAC 5-50-80, 9 VAC 5-80-110 and 9 VAC 5-50-20 A4)

4. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** The annual fuel usage shall not exceed 402.6 x 10^6 cubic feet of natural gas or 2.85 x 10^6 gallons of No. 2 fuel oil.
   (9 VAC 5-80-110 and Condition 4 of the 2/25/1988 NSR permit)

5. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** Filterable particulate emissions shall not exceed 0.7 or 0.14 pounds per hour when using No. 2 oil or natural gas, respectively, or 2.85 tons per year total.
   (9 VAC 5-80-110 and Condition 5 of the 2/25/1988 NSR permit)

6. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** Sulfur dioxide emissions shall not exceed 9.5 or 0.03 pounds per hour when using No. 2 oil or natural gas, respectively, or 40.47 tons per year total.
   (9 VAC 5-80-110 and Condition 6 of the 2/25/1988 NSR permit)

7. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** Nitrogen oxide emissions shall not exceed 6.8 or 6.5 pounds per hour when using No. 2 oil or natural gas, respectively, or 28.5 tons per year total.
   (9 VAC 5-80-110 and Condition 7 of the 2/25/1988 NSR permit)

8. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** The approved fuels are natural gas and No. 2 oil. A change in the fuel may require a permit to modify and operate. (9 VAC 5-80-110 and Condition 8 of the 2/25/1988 NSR permit)

9. **Fuel Burning Equipment Requirements - Boiler (ID# 1003) - Limitations –** The average sulfur content of the No. 2 oil to be burned shall not exceed 0.20 percent by weight, per shipment. (9 VAC 5-80-110 and Condition 9 of the 2/25/1988 NSR permit)

10. **Fuel Burning Equipment Requirements - Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) - Monitoring –** Each boiler and Dowtherm heater shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units, if any, have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. (9 VAC 5-80-110)

11. **Fuel Burning Equipment Requirements - Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) - Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. The monthly and annual consumption of natural gas and distillate oil by each boiler and Dowtherm heater. Annual consumption shall be calculated monthly as the sum of each consecutive 12-month period.

    b. Records of all shipments of No. 2 fuel oil purchased, indicating sulfur content per shipment.

    c. Records necessary to demonstrate compliance with Condition #1.

    d. The results of the monthly visible emission observations required by Condition #10 and details of any corrective action taken as a result of these inspections.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110 and Condition 9 of the 2/25/1988 NSR permit)

12. **Fuel Burning Equipment Requirements - Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) - Reporting –** The permittee shall report the results of any 40 CFR Part 60 Appendix A Method 9 opacity test performed as a result of Condition #10 above. If the test indicates the facility is out of compliance with the applicable standard contained in either Condition #2 or #3, the source shall also report the length of time associated with any exceedance of a standard and the

corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition #74.
(9 VAC 5-80-110)

MACT SUBPART DDDDD – NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR MAJOR SOURCES: INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS

13. **MACT SUBPART DDDDD - Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) – Limitations –** Unless otherwise specified, these emission units shall be in compliance with all applicable provisions of 40 CFR 63, Subparts A and DDDDD. Notwithstanding the requirements of Condition #8, these emission units are currently in the gas 1 fuels subcategory. If any emission unit is operated such that it no longer qualifies for the gas 1 fuels subcategory, the permittee shall comply with all applicable requirements of the appropriate subcategory instead of the work practice standard in Condition #14.
(9 VAC 5-80-110 and 40 CFR 63 Subparts A and DDDDD)

14. **MACT SUBPART DDDDD - Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) – Limitations –** The permittee shall conduct a tune-up of each boiler and heater annually as specified in 40 CFR 63.7540(a)(10). Tune-ups shall be conducted no later than 13 months from the previous tune-up. If the unit is not operating on the required date for a tune-up, then the tune-up must be conducted within 30 calendar days of re-startup. These tune-ups shall consist of the following:

    a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or 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, but each burner must be inspected at least once every 12 months.

    b. 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.

    c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown).

    d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOx requirement to which the unit is subject.

    e. 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).

f. Maintain on-site and submit, if requested by the Administrator, a report containing the information in §63.7540(a)(10)(vi)(A) through (C).

(9VAC5-80-110, 40 CFR 63.7500(a)(1), §63.7505(a), §63.7540(a)(10), and Table 3 to Subpart DDDDD of Part 63)

15. **MACT SUBPART DDDDD – Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) - Recordkeeping** – The permittee shall maintain records of each notification and report submitted to comply with the applicable requirements under 40 CFR 63, Subpart DDDDD including all supporting documentation (records of annual tune-ups and one-time energy assessment performed).
(9 VAC 5-80-110 and 40 CFR 63.7555(a))

16. **MACT SUBPART DDDDD – Boilers (ID#'s 1001-1003) and Dowtherm Heaters (ID#'s 1004-1005) - Reporting –** The permittee shall submit annual compliance reports electronically to the EPA via the CEDRI in accordance with 40 CFR 63.7550.
(9 VAC 5-80-110 and 40 CFR 63.7550(b), (c), and (h)(3))

Fuel Burning Equipment – Emergency Diesel Engines (ID#s 1007-1010)

17. **Fuel Burning Equipment Requirements – Emergency Diesel Engines (ID#'s 1007-1010) – Limitations -** Visible emissions from these emission units shall not exceed 20 percent opacity, except for one six-minute period in any one hour of not more than 30 percent opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-80-110 and 9 VAC 5-50-80)

18. **Fuel Burning Equipment Requirements – Emergency Diesel Engines (ID#'s 1007-1010) - Monitoring** – Each engine shall be observed visually at least once each operating month for at least a brief time period to determine which emissions units, if any, have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A, Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9 VAC 5-80-110)

19. **Fuel Burning Equipment Requirements – Emergency Diesel Engines (ID#'s 1007-1010) - Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. The results of the monthly visible emission observations required by Condition #18 and details of any corrective action taken as a result of these inspections.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110)

20. **Fuel Burning Equipment Requirements – Emergency Diesel Engines (ID#'s 1007-1010) - Reporting –** The permittee shall report the results of any 40 CFR Part 60 Appendix A Method 9 opacity test performed as a result of Condition #18 above. If the test indicates the facility is out of compliance with a standard contained in Condition #17, the source shall also report the length of time associated with any exceedance of a standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition #74.
(9 VAC 5-80-110)

MACT SUBPART ZZZZ – NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES – Engines (ID#'s 1007-1010)

21. **MACT SUBPART ZZZZ – Engines (ID#'s 1007-1010) – Limitations -** The permittee shall operate in compliance with all applicable requirements of 40 CFR 63 Subparts A and ZZZZ for existing stationary RICE located at a major source of HAP emissions. Table 8 to Subpart ZZZZ of Part 63 shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply to the permittee.
(9 VAC 5-80-110 and 40 CFR 63, Subparts A and ZZZZ)

22. **MACT SUBPART ZZZZ – Engines (ID#'s 1007-1010) – Limitations -** Each emergency diesel engine shall each be equipped with a non-resettable hour meter.
(9VAC5-80-110 and 40 CFR 63.6625(f))

23. **MACT SUBPART ZZZZ – Engines (ID#'s 1007-1010) – Limitations –** As required by 40 CFR 63.6602 for an existing stationary RICE located at a major source of HAP emissions, the permittee shall, as a minimum:

    a. Change the oil and oil filter every 500 hours of operation or annually, whichever comes first, for each engine.

    b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

    c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

    The permittee has the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Table 2c(1). The facility shall minimize the

engines' time spent at idle during startup and minimize the engines' startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
(9 VAC 5-80-110, 40 CFR 63.6602, 63.6625(h) and Table 2c (1) of 40 CFR 63 Subpart ZZZZ)

24. **MACT SUBPART ZZZZ – Engines (ID#'s 1007-1010) – Limitations -** For emergency engines, any operation other than emergency operation (described in (a)), maintenance and testing (described in (b)), and operation in non-emergency situations for 50 hours per year (described in (c)), as permitted in this condition, shall be prohibited:

    a. There shall be no time limit on the use of emergency engines in emergency situations.

    b. The permittee may operate emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the unit. Maintenance checks and readiness testing of such units shall be limited to 100 hours per year. The permittee may petition the Piedmont Regional Office for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency engines beyond 100 hours per year.

    c. The permittee may operate each emergency engine up to 50 hours per year in non-emergency situations, but those 50 hours shall be counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations shall not be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

    (9 VAC 5-80-110 and 40 CFR 63.6640(f))

25. **MACT SUBPART ZZZZ – Engines (ID#'s 1007-1010) – Recordkeeping -** The facility shall maintain records documenting conformance with applicable operating limitations, work practice, and management practice standards found in 40 CFR 63, Subpart ZZZZ. These records shall include but are not limited to:

    a. Records of the hours of operation of each engine as recorded through the non-resettable hour meter. Records of how many hours each engine was operated in an emergency operation and what classified the operation as an emergency. Records of how many hours each engine spent in a non-emergency operation.

    b. Records of oil and filter changes and inspections of air cleaners, hoses, and belts, as they occur.

    c. Records of maintenance done on each engine which demonstrates that the engine is operated or maintained according to the manufacturer's emission related operation and maintenance instructions or your own maintenance plan for minimizing emissions and operating the engine in a manner consistent with good air pollution control practices.

d. Records of occurrence and duration of each malfunction of operation and the corrective actions taken to minimize the emissions and restore the malfunctioning engine.

The above records must be kept for five years in hard copy or electronic format and must be readily accessible.
(9 VAC 5-80-110, 40 CFR 63.6655, and 40 CFR 63.6660)

Polymer Plant Process Equipment (ID# 0101-0104, 0110, 0116-0120, 0126-0134, 0139, 0151-0152, 0177 1027-1029, 1051, 1061-1062)

26. **Process Equipment Requirements - Polymer Plant Process Equipment (ID#'s 0122-0123, 0126-0128, 0101-0104) - Limitations –** The yearly production (in Terephthalic Acid (TA) process batches) for the following operations shall not exceed the specified amounts, calculated as the sum of each consecutive 12 month period:

Total Crude Glycol Tanks (Total for ID#'s 0122-0123 and #0126-0128)	17,520 TA batches/yr
L1 Polymer Reactor/Demister System (ID# 0101)	4380 TA batches/yr
L2 Polymer Reactor/Demister System (ID# 0102)	4380 TA batches/yr
L3 Polymer Reactor/Demister System (ID# 0103)	4380 TA batches/yr
L4 Polymer Reactor/Demister System (ID# 0104)	4380 TA batches/yr

(9 VAC 5-80-110 and Condition 3 of the 9/3/2020 NSR permit)

27. **Process Equipment Requirements - Polymer Plant Process Equipment (ID#'s 0122-0123, 0126-0128, 0101-0104) - Limitations –** Volatile Organic Compound (VOC) emissions from the operation of the following equipment/operations shall not exceed the limits specified below:

	lb/hr	**tons/yr**
Crude Glycol Tanks (Total for ID#'s 0122-0123 and 0126-0128)	1.70	7.49
L1 Polymer Reactor System (ID# 0101)	2.46	5.4
L2 Polymer Reactor System (ID# 0102)	2.46	5.4
L3 Polymer Reactor System (ID# 0103)	2.46	5.4

	lb/hr	tons/yr
L4 Polymer Reactor System (ID# 0104)	2.46	5.4

(9 VAC 5-80-110 and Condition 3 of the 9/3/2020 NSR permit)

28. **Process Equipment Requirements - Polymer Plant Process Equipment (ID#'s 0151-0152) - Limitations –** VOC emissions from the Ethylene Glycol stills' vacuum systems shall be controlled by the use of non-contact condensers and by diverting the resulting condensate away from the hotwell/cooling tower system. The facility shall conduct an annual inspection to verify that non-contact condensers are being used.
(9 VAC 5-80-110 and Condition E.3 of the 5/30/1996 RACT Agreement)

29. **Polymer Plant Process Equipment (ID#'s 0190-0191) - Limitations –** Fugitive VOC emissions from the polymer plant equipment leak components shall be controlled by a Leak Detection and Repair (LDAR) Program in accordance with 40 CFR 60, Subpart VV as if the polymer plant was considered an "affected facility" under 40 CFR 60.480 and as if all raw materials, intermediate and final products used/produced at the facility were listed in 40 CFR 60.489. The permittee shall comply with all applicable procedures and standards and all test, recordkeeping and reporting requirements of 40 CFR 60, Subpart VV. The required reports of 40 CFR 60.487 shall not be submitted to the Administrator, but instead, shall be kept at the site for the most recent 5 year period and shall be available for inspection during normal working hours.
(9 VAC 5-80-110 and Condition E.2 of the 5/30/1996 RACT Agreement)

30. **Process Equipment Requirements – Polymer Plant Process Equipment (ID#'s 0101-0104, 0122-0123, 0126-0128, 0151-0152, 0190-0191) - Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. The yearly production (in batches) for each polymer line and the total production (in batches) for all polymer lines (combined), calculated as the sum of each consecutive 12 month period, as well as any other information required to demonstrate compliance with the emission limits contained in Condition #27.

    b. Records of annual inspections demonstrating compliance with the requirements of Condition #28.

    c. LDAR records required by 40 CFR 60, Subpart VV and Condition #29.

    (9 VAC 5-80-110 and Condition 7 of the 9/3/2020 NSR permit)

MACT SUBPART JJJ – NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS (ID#'s 0101-0104, 0122-0123, 0126-0128, 0151-0152, 0190-0191)

31. **MACT SUBPART JJJ – Polymer Plant Process Equipment (ID#'s 0101-0104, 0110, 0120, 0122-0123, 0126-0128, 0190-0191, 1028-1029, 1061-1062) - Limitations –** Except where this permit is more restrictive than the applicable requirement, the polymer plant shall operate in compliance with all requirements of 40 CFR 63 Subparts A and JJJ. All batch process vents, storage tanks and wastewater streams are currently identified as Group 2 and have no control requirements. Any batch process vent, storage tank or wastewater stream that no longer qualifies as Group 2 shall meet all applicable Group 1 requirements for the appropriate emission unit type. Any process changes, as defined in 40 CFR 63.1323(i), which may change the Group 2 status of the batch process vents will be recorded. All heat exchange systems are not subject to the monitoring requirements in 40 CFR 63.104 provided the conditions in 40 CFR 63.104(a)(5) are met.
(9 VAC 5-80-110 and 40 CFR 63 Subparts A and JJJ)

32. **MACT SUBPART JJJ – Polymer Plant Process Equipment (ID# 0190)-Limitations –** Fugitive Hazardous Air Pollutant (HAP) emissions shall be controlled by a Leak Detection and Repair (LDAR) Program in accordance with 40 CFR 63.1331. Where the LDAR requirements of this condition differ from those of Condition #29, the more stringent requirement shall apply.
(9 VAC 5-80-110 and 40 CFR 63.1331)

33. **MACT SUBPART JJJ – Polymer Plant Process Equipment (ID#'s 0101-0104, 0122-0123, 0126-0128, 0151-0152, 0190-0191) - Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. LDAR records required by 40 CFR 63.1331.

    b. For each Group 2 storage vessel, as defined in 40 CFR 63.1312, records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel as required by 40 CFR 63.123(a).
    (40 CFR 63.1314(a))

    c. For each Group 2 wastewater stream, records required by 40 CFR 63.147(b)(8)(i) through (iv).
    (40 CFR 63.1330(b))

    d. Records of any process changes, as defined in 40 CFR 63.1323(i), affecting the Group 2 status of the batch process vents.

    e. For each Group 2 batch process vent, the records required by 40 CFR 63.1326(a)(9) (maximum design capacity and mass of HAP charged annually).

The records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110, 40 CFR 63.1314(a), 40 CFR 63.1323(i), 40 CFR 63.1326, 40 CFR 63.1330, and 40 CFR 63.1331)

34. **MACT SUBPART JJJ – Polymer Plant Process Equipment (ID# 0190) - Reporting –** The permittee shall submit periodic reports containing the information required by 40 CFR 63.1335(e)(6); including the information specified in 40 CFR 63.182(d) for equipment leaks subject to 40 CFR 63.1331. These reports shall be submitted semiannually, no later than 60 days after the end of each 6-month period. Records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110)

Additional Polymer Plant Process Equipment (ID#'s 0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); and Film Plant Process Equipment including Film Line 40 (ID#'s 4011, 4012), Film Line 42 (ID#'s 4261, 4271), Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073)

35. **Process Equipment Requirements – Additional Polymer Plant Process Equipment (ID#'s 0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); and Film Plant Process Equipment including Film Line 40 (ID#'s 4011, 4012), Film Line 42 (ID#'s 4261, 4271), Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Limitations –** Particulate matter emissions from the equipment listed below shall be controlled as described in the following table, or equivalent:

Ref. No.	Equipment Description	Pollutant Controlled	Control Equipment Type	Control Equipment Model
0118	L4 Polymer Chip Blender	PM/PM-10	Baghouse	Flex-Kleen 58-CT-14-III 58-CT-14-III
0119D	L4 Polymer Hold Up Hopper	PM/PM-10	Baghouse	Flex-Kleen 58 CT 18 III
2040	Railroad Car Chip Unloading Station (two baghouses operated in parallel but not at the same time)	PM/PM-10	Baghouse	Ultra Industries #CB-24-84-ARR III & Flex-Kleen 84CTBC

Ref. No.	Equipment Description	Pollutant Controlled	Control Equipment Type	Control Equipment Model
2041	Railroad Car Chip Unloading Station	PM/PM-10	Baghouse	Ultra Industries #CB-24-84-ARR III
4011	L40 Crystallizer Filter Receiver	PM/PM-10	Baghouse	Young Industries #8813
4012	L40 Main Dryer System	PM/PM-10	Baghouse	Flex Kleen
4261	L42 Air Classifier	PM/PM-10	Two baghouses	Flex-Kleen 84CT-18 & Young Industries
4271	L42/L43 House Vacuum System	PM/PM-10	Baghouse	Hoffman GS33481
4307	L43 Co-extrusion Chip Convey System	PM/PMIO	Baghouse	Flex-Kleen 56 CTBS8 III
4313	L43 Co-extrusion Dryer System	PM/PM-10	Baghouse	Flex-Kleen 58BVBC-9 III
4314	L43 Main Extruder Vacuum Pump	PM/PM-10	Baghouse	Sprout Waldorn
4372	L43 House Vacuum System	PM/PM-10	Baghouse	Hoffman HPC 10-58
4406, 4606	L44 and L46 Air Classifiers (shared baghouse)	PM/PM-10	Baghouse	Flex-Kleen 100-WSBS-100 IIIG
4411	L44 Main Dryer System	PM/PM-10	Baghouse	Flex-Kleen 58-CT-14-III
4412	L44 Co-extrusion Dryer System	PM/PM-10	Baghouse	Flex-Kleen 58CTBC-8-III
4461	L44 Cutters	PM/PM-10	Baghouse	Flex-Kleen #100-WRC-144-III-G
4474	L44 Global Baghouse and House Vacuum System	PM/PM-10	Baghouse	Hoffman 40 x166
4511	L45 Main Dryer System	PM/PM-10	Baghouse	Flex-Kleen 58 CTBG 14 III
4512	L45 Co-extrusion Dryer System	PM/PM-10	Baghouse	Flex-Kleen 58 BVBS-9 III
4513	L45 Master Batch Dryer System	PM/PM-10	Baghouse	Young Ind. VC60-9-32
4514	L45 Main Extruder Vacuum Pump	PM/PM-10	Cartridge Filter	SIDCO
4561	L45 Cutters	PM/PM-10	Baghouse	Flex-Kleen 84 WRB 64 IIIG
4571	L40/L45 House Vacuum System	PM/PM-10	Baghouse	Hoffman 30695
4611	L46 Main and Co-extrusion Dryer Systems	PM/PM-10	Baghouse	Flex-Kleen No. 58CT-14

Ref. No.	Equipment Description	Pollutant Controlled	Control Equipment Type	Control Equipment Model
4661	L46 Cutter	PM/PM-10	Two Baghouses	Flex-Kleen No. 100 MRC-144 Flex-Kleen No. 84 WRBC-48
4671	L46 House Vacuum System	PM/PM-10	Baghouse	Hoffman 36 x 144
4711	L47 Main Chip Dryer	PM/PM-10	Baghouse	Sprout Bauer CB-14-58
4712	L47 Main Extruder Vacuum Pump	PM/PM-10	Baghouse	Flex-Kleen 08 CTBC 8 III
4761	L47 Cutters	PM/PM-10	Baghouse	Sprout Bauer RS-144-100
4763	L47 House Vacuum System	PM/PM-10	Baghouse	Hoffman 36 x 120
6001-6004	Primary Flake Bunkers #1-4	PM/PM-10	Two baghouses for the four bunkers	Young Industries #96 120 and Flex-Kleen #100 WRWC 80 III
6005	Primary Flake Bunker #5	PM/PM-10	Baghouse	Flex-Kleen #WRC 48M36 II
6006	Primary Flake Bunker #6	PM/PM-10	Baghouse	Flex-Kleen #100 CT 64 II
6007	Primary Flake Bunker #7	PM/PM-10	Baghouse	Flex-Kleen #100 CT 64 II
6008	Primary Flake Bunker #8	PM/PM-10	Baghouse	Flex-Kleen #100 CT 64 II
6009	Primary Flake Bunker #9	PM/PM-10	Baghouse	Flex-Kleen #100 CT 64 II
6010	Primary Flake Bunker #10	PM/PM-10	Baghouse	Flex-Kleen #WRC 48M36 II
6011	Primary Flake Bunker #11	PM/PM-10	Baghouse	Flex-Kleen #100 CT 64 II
6012	Primary Flake Bunker #12	PM/PM-10	Baghouse	Flex-Kleen #100-CT-64-II
6013	Primary Flake Bunker #13	PM/PM-10	Baghouse	Flex-Kleen #WRC 48M36 II
6014	Primary Flake Bunker #14	PM/PM-10	Baghouse	Flex-Kleen #WRC 48M36 II
6015	Primary Flake Bunker #15	PM/PM-10	Baghouse	Flex-Kleen #100 CTBC 64 II G
6016	Primary Flake Bunker #16	PM/PM-10	Baghouse	Flex-Kleen #100 CTBC 64 II G
6017	Primary Flake Bunker #17	PM/PM-10	Baghouse	Flex-Kleen #100 CTBC 64 II G

Ref. No.	Equipment Description	Pollutant Controlled	Control Equipment Type	Control Equipment Model
6018	Primary Flake Bunker #18	PM/PM-10	Baghouse	Flex-Kleen #100 CTBC 64 II G
6019	Primary Flake Bunker #19	PM/PM-10	Baghouse	Flex-Kleen #100 CTBC 64 II G
6020	Primary Flake Bunker #20	PM/PM-10	Baghouse	Flex-Kleen #100 CTBC 64 II G
6021	Primary Flake Bunker #21	PM/PM-10	Baghouse	Ultra Industries #CB 65 100 II G
6041	Intermediate Flake Bunker #1	PM/PM-10	Baghouse	Flex-Kleen #100 CT 18 II
6042	Intermediate Flake Bunker #2	PM/PM-10	Baghouse	Flex-Kleen #100 CT 18 II
6043	Intermediate Flake Bunker #3	PM/PM-10	Baghouse	Flex-Kleen #100 CT 18 II
6044	Intermediate Flake Bunker #4	PM/PM-10	Baghouse	Flex-Kleen #100 CT 18 II
6045	Intermediate Flake Bunker #5	PM/PM-10	Baghouse	Ultra Industries #CB 34 100 II G
6066 and 6073	Flake Dryers #1 and #4 (#1 and #4 share a common vent)	PM/PM-10	Two baghouses	Flex-Kleen #84 BVBC 16 III G and Young Industries #VC 96 54 84 Style B.
6067 and 6073	Flake Dryers #2 and #3 (#2 and #3 share a common vent)	PM/PM-10	Two baghouses	Flex-Kleen #84 BVBC 16 III G and Young Industries #VC 96 54 84 Style B.
6070	Flake Dryer #5	PM/PM-10	Baghouse	Flex-Kleen 84 BVBS 16 III

Each unit shall be provided with adequate access for inspection. Each baghouse shall be equipped with a device to continuously measure the differential pressure drop across the baghouse. The devices shall be installed in accessible locations and shall be maintained by the permittee such that they are in proper working order at all times.
(9 VAC 5-80-110 and Condition 1 of the 9/3/2020 NSR permit)

36. **Process Equipment Requirements - Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) – Limitations –** Volatile Organic Compound (VOC) emissions from the film coating application systems (L40-L47) shall be controlled by using coatings with VOC content no greater than 1.0 pound VOC per gallon coating, as applied, on a monthly average basis.
(9 VAC 5-80-110 and Condition 2 of the 9/3/2020 NSR permit)

37. **Process Equipment Requirements - Railroad Car Chip Unloading Operations (ID#'s 2040-2041) and Film Plant Process Equipment including Virgin Chip Bunkers (ID#'s 2001-2024), Film Line 40 (ID#'s 4001, 4002, 4003, 4004, 4011, 4012, 4021, 4031, 4032, 4033, 4034, 4035), Film Line 43 (ID#'s 4301a, 4301b, 4303a, 4303b, 4304, 4305a, 4305b, 4306, 4307, 4308, 4309, 4311, 4313, 4314, 4322, 4331, 4332, 4333, 4335, 4372), Film Line 44 (ID#'s 4401, 4402, 4403, 4404a, 4404b, 4405a, 4405b, 4406, 4407a, 4407b, 4408a, 4408b, 4409a, 4409b, 4411, 4412, 4422, 4431, 4432, 4433, 4434, 4435, 4461, 4474), Film Line 45 (ID#'s 4500a, 4500b, 4502a, 4502b, 4504a, 4504b, 4505a, 4505b, 4506a, 4506b, 4507a, 4507b, 4508a, 4508b, 4511, 4512, 4513, 4514, 4522, 4531, 4532, 4533, 4534, 4561, 4571), Film Line 46 (ID#'s 4601a, 4601b, 4601c, 4601d, 4601e, 4601f, 4601g, 4606, 4611, 4621, 4631, 4632, 4633, 4634, 4661, 4671), Film Line 47 (ID#'s 4701a, 4701b, 4703a, 4703b, 4705a, 4705b, 4711, 4712, 4721, 4732, 4733, 4734, 4735, 4736, 4737, 4738, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073)– Limitations –** The annual throughput of chip, flake, film, or batches for the following operations shall not exceed the specified amounts, calculated as the sum of each consecutive 12 month period:

Film Line 40	15,330 tons/yr
Film Line 43	17,520 tons/yr
Film Line 44	18,000 tons/yr
Film Line 45	21,900 tons/yr
Film Line 46	32,412 tons/yr
Film Line 47	32,412 tons/yr
Virgin Chip Bunkers	90,000 tons/yr
Total for Primary Flake Bunkers (#1-21)	75,000 tons/yr
Total for Railroad Car Chip Unloading Operations (#2040-2041)	131,400 tons/yr
Total for Flake Dryers (#6066-6070)	75,000 tons/yr
Total for Intermediate Flake Bunkers (#6041-6045)	75,000 tons/yr

Regardless of the throughput limits listed above, the yearly throughput of chip, flake, or film for the following individual emission units shall not exceed the specified amounts, calculated as the sum of each consecutive 12-month period.

ID# 4372	L43 House Vacuum System	44 tons/yr
ID# 4307	L43 Co-extrusion Chip Convey System	8,760 tons/yr
ID# 4474	L44 House Vacuum System	157.5 tons/yr
ID# 4461	L44 Cutters	9,000 tons/yr
ID# 4561	L45 Cutters	10,950 tons/yr
ID# 4571	L40/L45 House Vacuum System	94 tons/yr

ID# 4661	L46 Cutters	16,206 tons/yr
ID# 4671	L46 House Vacuum System	284 tons/yr
ID# 4761	L47 Cutters	16,206 tons/yr
ID# 4763	L47 House Vacuum System	81 tons/yr

Note: Compliance with the throughput limits specified above for House Vacuum Systems (ID#'s 4372, 4571 and 4763) shall be determined based upon 0.25% of the vacuum systems respective Film Line throughputs.

(9 VAC 5-80-110 and Condition 3 of the 9/3/2020 NSR permit)

38. **Process Equipment Requirements - Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) – Limitations –** The yearly throughput of VOCs for all Film Coating Systems shall not exceed 16.3 tons (combined), calculated as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 4 of the 9/3/2020 NSR permit)

39. **Process Equipment Requirements - Film Plant Process Equipment including Film Line 40 (ID#'s 4001, 4002, 4003, 4004, 4011, 4012, 4021, 4031, 4032, 4033, 4034, 4035), Film Line 43 (ID#'s 4301a, 4301b, 4303a, 4303b, 4304, 4305a, 4305b, 4306, 4307, 4308, 4309, 4311, 4313, 4314, 4322, 4331, 4332, 4333, 4335, 4372), Film Line 44 (ID#'s 4401, 4402, 4403, 4404a, 4404b, 4405a, 4405b, 4406, 4407a, 4407b, 4408a, 4408b, 4409a, 4409b, 4411, 4412, 4422, 4431, 4432, 4433, 4434, 4435, 4461, 4474), Film Line 45 (ID#'s 4500a, 4500b, 4502a, 4502b, 4504a, 4504b, 4505a, 4505b, 4506a, 4506b, 4507a, 4507b, 4508a, 4508b, 4511, 4512, 4513, 4514, 4522, 4531, 4532, 4533, 4534, 4561, 4571), Film Line 46 (ID#'s 4601a, 4601b, 4601c, 4601d, 4601e, 4601f, 4601g, 4606, 4611, 4621, 4631, 4632, 4633, 4634, 4661, 4671), Film Line 47 (ID#'s 4701a, 4701b, 4703a, 4703b, 4705a, 4705b, 4711, 4712, 4721, 4732, 4733, 4734, 4735, 4736, 4737, 4738, 4761, 4763), Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Limitations –** Emissions from the operation of the following equipment/operations shall not exceed the limits specified below:

	PM lb/hr - tons/yr	PM-10 lb/hr - tons/yr	VOC lb/hr - tons/yr
Film Line 40	1.5 - 1.1	1.5 - 1.1	1.6 - 6.3**
Film Line 43	3.3 - 5.7	3.3 - 5.7	4.2 - 9.5**
Film Line 44	3.6 - 1.5*	3.6 - 1.5*	1.7 - 7.3**
Film Line 45	2.8 - 1.7	2.8 - 1.7	4.6 - 11.5**
Film Line 46	1.0 - 2.6*	1.0 - 2.6*	3.0 - 13.2**
Film Line 47	1.9 - 1.7	1.9 - 1.7	3.9 - 17.0**

	PM lb/hr - tons/yr	PM-10 lb/hr - tons/yr	VOC lb/hr - tons/yr
Film Coating Systems (Total)	N/A	N/A	170.0 - 16.3
Primary Flake Bunkers (Total)	9.2 - 3.8	9.2 - 3.8	N/A
Intermediate Flake Bunkers (Total)	0.9 - 3.8	0.9 - 3.8	N/A
Flake Dryers (Total)	0.9 - 3.8	0.9 - 3.8	N/A

*Emission Limits also represent PM-2.5 for Film Lines 44 and 46.

**VOC emissions are caused by the Film Line processing operations and are separate from the VOC emissions from the coating operations.

(9 VAC 5-80-110 and Condition 5 of the 9/3/2020 NSR permit)

40. **Process Equipment Requirements – Additional Polymer Plant Process Equipment (ID#'s 0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); and Film Plant Process Equipment including Film Line 40 (ID#'s 4011, 4012), Film Line 42 (ID#'s 4261, 4271), Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711,4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Limitations –** Visible emissions from these emission units shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 6 of the 9/3/2020 NSR permit)

41. **Process Equipment Requirements - Additional Polymer Plant Equipment (ID#'s 0115-0117) and Film Plant Process Equipment including Virgin Chip Bunkers (ID#'s 2001-2024), Film Line 40 (ID#'s 4001, 4002, 4003, 4004, 4031, 4032, 4033, 4034, 4035), Film Line 42 (ID#'s 4201a, 4201b, 4203a, 4203b, 4204, 4205a, 4205b, 4211, 4212, 4221, 4231, 4232), Film Line 43 (ID#'s 4301a, 4301b, 4303a, 4303b, 4304, 4305a, 4305b, 4306, 4308, 4309, 4311, 4322, 4331, 4332, 4333, 4335), Film Line 44 (ID#'s 4401, 4402, 4403, 4404a, 4404b, 4405a, 4405b, 4407a, 4407b, 4408a, 4408b, 4409a, 4409b, 4422, 4431, 4432, 4433, 4434, 4435), Film Line 45 (ID#'s 4500a, 4500b, 4502a, 4502b, 4504a, 4504b, 4505a, 4505b, 4506a, 4506b, 4507a, 4507b, 4508a, 4508b, 4531, 4532, 4533, 4534), Film Line 46 (ID#'s 4601a, 4601b, 4601c, 4601d, 4601e, 4601f, 4601g, 4631, 4632, 4633, 4634), Film Line 47 (ID#'s 4701a, 4701b, 4703a, 4703b, 4705a, 4705b, 4732, 4733, 4734, 4735, 4736, 4737, 4738), Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725), Scrap Bunker (ID# 6051), and Polymer Chip and Recycle House Vacuum Systems (ID#'s 2050, 6071, 6090) – Limitations –** Visible emissions from these emission units shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 6 of the 9/3/2020 NSR Permit)

42. **Process Equipment Requirements - Additional Polymer Plant Equipment (ID#'s 0115-0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); Film Plant Process Equipment including Virgin Chip Bunkers (ID#'s 2001-2024), Film Line 40 (ID#'s 4001, 4002, 4003, 4004, 4011, 4012, 4031, 4032, 4033, 4034, 4035), Film Line 42 (ID#'s 4201a, 4201b, 4203a, 4203b, 4204, 4205a, 4205b, 4211, 4212, 4221, 4231, 4232, 4261, 4271), Film Line 43 (ID#'s 4301a, 4301b, 4303a, 4303b, 4304, 4305a, 4305b, 4306, 4308, 4309, 4311, 4322, 4331, 4332, 4333, 4335), Film Line 44 (ID#'s 4401, 4402, 4403, 4404a, 4404b, 4405a, 4405b, 4407a, 4407b, 4408a, 4408b, 4409a, 4409b, 4422, 4431, 4432, 4433, 4434, 4435), Film Line 45 (ID#'s 4500a, 4500b, 4502a, 4502b, 4504a, 4504b, 4505a, 4505b, 4506a, 4506b, 4507a, 4507b, 4508a, 4508b, 4531, 4532, 4533, 4534), Film Line 46 (ID#'s 4601a, 4601b, 4601c, 4601d, 4601e, 4601f, 4601g, 4631, 4632, 4633, 4634), Film Line 47 (ID#'s 4701a, 4701b, 4703a, 4703b, 4705a, 4705b, 4732, 4733, 4734, 4735, 4736, 4737, 4738), Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725), Scrap Bunker (ID# 6051), and Polymer Chip and Recycle House Vacuum Systems (ID#'s 2050, 6071, 6090) – Monitoring –** The exhausts associated with these emission units shall be observed visually at least once each operating month, while the emission units are operating, for at least a brief time period to determine which emissions units, if any, have any visible emissions (does not include condensed water vapor/steam), unless a 40 CFR 60 Appendix A Method 9 visible emissions evaluation is performed on the emissions unit. Each emissions unit observed having any visible emissions shall be followed up with a 40 CFR 60 Appendix A, Method 9 visible emissions evaluation unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded.
(9 VAC 5-80-110)

43. **Process Equipment Requirements - Polymer Plant Process Equipment (ID#'s 0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); and Film Plant Process Equipment including Film Line 40 (ID#'s 4011, 4012), Film Line 42 (ID#'s 4261, 4271) – Monitoring –** For each monthly visible emission observation required by Condition #42, the permittee shall also measure and record the differential pressure drop across the baghouse or fabric filter.
(9 VAC 5-80-110)

44. **Process Equipment Requirements – Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) -** The facility shall perform annual operational status inspections of the equipment that is important to the performance of the baghouses or cartridge filter associated with these emissions units. This inspection shall include observations of the physical appearance of the equipment, including, but not limited to, presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, fan erosion, and a check of the pressure drop gauges to ensure they are functioning as designed. Any deficiencies shall be noted and proper maintenance performed.
(9 VAC 5-80-110d 40 CFR 64.6)

45. **Process Equipment Requirements – (Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) –** The permittee shall monitor, operate, calibrate, and maintain the CAM control devices listed in the CAM plan attached to this permit according to the attached CAM Plan. Visible emission observations using EPA Method 22-like procedures shall be conducted on the exhausts of the baghouses or cartridge filter associated with these emission units at least once per day when the film coating lines are operating.
(9 VAC 5-80-110 and 40 CFR 64.6 (c))

46. **Process Equipment Requirements - Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) -** The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9VAC5-80-110 and 40 CFR 64.6 (c))

47. **Process Equipment Requirements – Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) -** Upon detecting any visible emissions, the permittee shall restore operation of the emission unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 and 40 CFR 64.7 (d)(1))

48. **Process Equipment Requirements – Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) -** Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 and 40 CFR 64.7(d)(2))

49. **Process Equipment Requirements – Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) -** If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Piedmont Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 and 40 CFR 64.7(e))

50. **Process Equipment Requirements – Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) -** If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the film coating lines and associated emission units for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:

    a. Improved preventative maintenance practices;

    b. Process operation changes;

    c. Appropriate improvements to control methods;

    d. Other steps appropriate to correct control performance; and

    e. More frequent or improved monitoring.

    (9 VAC 5-80-110 and 40 CFR 64.8(a) and (b))

51. **Process Equipment Requirements - Additional Polymer Plant Equipment (ID#'s 0115-0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); Film Plant Process Equipment including Virgin Chip Bunkers (ID#'s 2001-2024), Film Line 40 (ID#'s 4001, 4002, 4003, 4004, 4011, 4012, 4031, 4032, 4033, 4034, 4035), Film Line 42 (ID#'s 4201a, 4201b, 4203a, 4203b, 4204, 4205a, 4205b, 4211, 4212, 4221, 4231, 4232, 4261, 4271), Film Line 43 (ID#'s 4301a, 4301b, 4303a, 4303b, 4304, 4305a, 4305b, 4306, 4308, 4309, 4311, 4322, 4331, 4332, 4333, 4335), Film Line 44 (ID#'s 4401, 4402, 4403, 4404a, 4404b, 4405a, 4405b, 4407a, 4407b, 4408a, 4408b, 4409a, 4409b, 4422, 4431, 4432, 4433, 4434, 4435), Film Line 45 (ID#'s 4500a, 4500b, 4502a, 4502b, 4504a, 4504b, 4505a, 4505b, 4506a, 4506b, 4507a, 4507b, 4508a, 4508b, 4531, 4532, 4533, 4534), Film Line 46 (ID#'s 4601a, 4601b, 4601c, 4601d, 4601e, 4601f, 4601g, 4631, 4632, 4633, 4634), Film Line 47 (ID#'s 4701a, 4701b, 4703a, 4703b, 4705a, 4705b, 4732, 4733, 4734, 4735, 4736, 4737, 4738), Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725), Scrap Bunker (ID# 6051), and Polymer Chip and Recycle House Vacuum Systems (ID#'s 2050, 6071, 6090) – Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. The yearly throughput of chip, flake, or film (as appropriate) for each process line and piece of equipment listed in Condition #37, calculated as the sum of each consecutive 12 month period,

as well as any other information required to demonstrate compliance with the emission limits contained in Condition #39.

b. The VOC content, as applied (lb/gal), of each coating formulation used in the film coating operations on a monthly basis.

c. For each month where a coating formulation is applied in the film coating operation which exceeds the VOC content specified in Condition #36, the amount (gallons) of each coating formulation applied in the film coating operation that month and the volume weighted average VOC content (lb/gal), as applied, of the coating formulations used in the film coating operation for that month.

d. The combined (for all coating lines) yearly throughput of coating operation VOCs, calculated as the sum of each consecutive 12 month period, as well as any other information required to demonstrate compliance with the emission limit contained in Condition #38.

e. The results of the monthly visible emission observations and differential pressure readings required by Conditions #42 and #43 and details of any corrective action taken.

The records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 and Condition 7 of the 9/3/2020 NSR permit)

52. **Process Equipment Requirements - Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) Recordkeeping -** The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

a. Results of annual CAM inspections conducted in accordance with Condition #44.

b. Daily CAM visible emission observation results and details of any maintenance or corrective actions taken in accordance with Conditions #45 and #47.

(9VAC5-80-110 and 40 CFR 64.9(b))

53. **Process Equipment Requirements - Additional Polymer Plant Equipment (ID#'s 0115-0118, 0119D); Railroad Car Chip Unloading Operations (ID#'s 2040-2041); and Film Plant Process Equipment including Virgin Chip Bunkers (ID#'s 2001-2024), Film Line 40 (ID#'s 4001, 4002, 4003, 4004, 4011, 4012, 4031, 4032, 4033, 4034, 4035), Film Line 42 (ID#'s 4201a, 4201b, 4203a, 4203b, 4204, 4205a, 4205b, 4211, 4212, 4221, 4231, 4232, 4261, 4271), Film Line 43 (ID#'s 4301a, 4301b, 4303a, 4303b, 4304, 4305a, 4305b, 4306, 4308, 4309, 4311, 4322, 4331, 4332, 4333, 4335), Film Line 44 (ID#'s 4401, 4402, 4403, 4404a, 4404b, 4405a, 4405b, 4407a, 4407b, 4408a, 4408b, 4409a, 4409b, 4422, 4431, 4432, 4433, 4434, 4435), Film Line 45 (ID#'s 4500a, 4500b, 4502a, 4502b, 4504a, 4504b, 4505a, 4505b, 4506a, 4506b, 4507a, 4507b, 4508a, 4508b, 4531, 4532, 4533, 4534), Film Line 46 (ID#'s 4601a, 4601b, 4601c, 4601d, 4601e, 4601f, 4601g, 4631, 4632, 4633, 4634), Film Line 47 (ID#'s 4701a, 4701b, 4703a, 4703b, 4705a, 4705b, 4732, 4733, 4734, 4735, 4736, 4737, 4738), Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725), Scrap Bunker (ID# 6051), and Polymer Chip and Recycle House Vacuum Systems (ID#'s 2050, 6071, 6090) – Reporting –** The permittee shall report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of Condition #42. If the test indicates the facility is out of compliance with a standard contained in Condition #40 or #41, the source shall also report the length of time associated with any exceedance of a standard and the corrective actions taken to correct the exceedance. This report shall be sent to the Piedmont Regional Office within seven days of the applicable test unless otherwise noted in Condition #74.
(9 VAC 5-80-110)

54. **Process Equipment Requirements – Film Plant Process Equipment including Film Line 43 (ID#'s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073) – Compliance Assurance Monitoring (CAM) Reporting –** The permittee shall submit semiannual CAM reports as part of the Title V semi-annual monitoring reports according to 40 CFR 64.9(a) as required by Condition #72 of this permit to the Piedmont Regional Office. These reports shall include:

    a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken.

    b. If applicable, a description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the next report shall document that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

    (9 VAC 5-80-110 and 40 CFR 64.9(a))

MACT SUBPART JJJJ (NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: PAPER AND OTHER WEB COATING) – (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725)

55. **MACT SUBPART JJJJ – Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) - Limitations –** Except where this permit is more restrictive than the applicable requirement, the film coating systems shall operate in compliance with all applicable provisions of 40 CFR 63, Subparts A and JJJJ.
(9 VAC 5-80-110 and 40 CFR 63 Subparts A and JJJJ)

56. **MACT SUBPART JJJJ – Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) - Limitations –** The permittee shall comply with the emission standard in 40 CFR 63.3320(b)(2) or (b)(3) for all periods of operation, including startup, shutdown, and malfunction (SSM).
(9 VAC 5-80-110 and 40 CFR 63.3320)

57. **MACT SUBPART JJJJ – Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) - Limitations –** The permittee shall demonstrate compliance each month with 63.3320(b)(2) or (b)(3) in accordance with one of the following compliance approaches:

    a. Use of "as-purchased" compliant coating materials in accordance with 40 CFR 63.3370(a)(1)(i) or 40 CFR 63.3370(a)(1)(ii).

    b. Use of "as-applied" compliant coating materials in accordance with 40 CFR 63.3370(a)(2)(i) – 40 CFR 63.3370(a)(2) (iv).
    c. Tracking total monthly organic HAP applied in accordance with 40 CFR 63.3370(a)(3).

    (9 VAC 5-80-110 and 40 CFR 63.3370)

58. **MACT SUBPART JJJJ – Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) – Limitations –** As necessary to demonstrate compliance with 40 CFR 63.3320(b) or (c), the permittee shall determine the organic HAP content of coating materials by following the procedures in 40 CFR 63.3360(c) and shall determine the volatile organic content and coating solids content of coating materials by following the procedures in 40 CFR 63.3360(d).
(9 VAC 5-80-110 and 40 CFR 63.3370(b & c))

59. **MACT SUBPART JJJJ - Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) – Recordkeeping –** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

a. If complying with 40 CFR 63.3320(b)(2), the organic HAP content of each film coating to demonstrate compliance in accordance with the procedures contained in 40 CFR 63.3370.
(40 CFR 63.3410(a)(1)(iii))

b. If complying with 40 CFR 63.3320(b)(3), the organic HAP content, volatile matter and coating solids content of each film coating to demonstrate compliance in accordance with the procedures contained in 40 CFR 63.3370.
(40 CFR 63.3410(a)(1)(iv))

c. If necessary for demonstrating compliance with 40 CFR 63.3320(b)(2) or (b)(3), material usage, organic HAP usage, coating solids usage, and compliance demonstrations using these data for all film coatings applied.
(40 CFR 63.3410(a)(vi))

d. If the facility determines by its monthly compliance demonstration, in accordance with 40 CFR 63.3370, as applicable, that the source failed to meet an applicable emission limit of Subpart JJJJ, the permittee shall record the following for the corresponding affected equipment:

   i. Record an estimate of the quantity of HAP (or VOC if used as a surrogate in accordance with 40 CFR 63.3360(d)) emitted in excess of the emission limit for the month, and a description of the method used to estimate the emissions.
   ii. Record actions taken to minimize emissions in accordance with 40 CFR 63.3340(a), and any corrective actions taken to return the affected unit to its normal or usual manner or operation.

   (40 CFR 63.3410(c)(3))

e. Any records required to be maintained by this part that are submitted electronically via EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to DEQ or the EPA as part of an on-site compliance evaluation.
(40 CFR 63.3410(e))

The records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and 40 CFR 63.3410)

60. **MACT SUBPART JJJJ – Film Coating Systems (ID#'s 4025, 4225, 4325, 4425, 4525, 4625, 4725) – Reporting –** The permittee shall submit semiannual compliance reports according to 40 CFR 63.3400(c) as required by Condition #72 of this permit to the Piedmont Regional Office. Electronic reports submitted to EPA via CEDRI must follow the procedures specified in 40 CFR 63.3400(h).
(9 VAC 5-80-110 and 40 CFR 63.3400)

Facility Wide Conditions

61. **Facility Wide Conditions - Limitations -** Emissions from the operation of the entire facility shall not exceed the limits specified below:

    Volatile Organic Compounds 223.3 tons/yr

    (9 VAC 5-80-110 and Condition D.4 of the 11/30/1999 Consent Order)

62. **Facility Wide Conditions - Monitoring –** At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-80-110 and Condition 11 of the 9/3/2020 NSR permit)

63. **Facility Wide Conditions - Recordkeeping -** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Piedmont Regional Office. These records shall include, but are not limited to:

    a. All information (production records, emission factors, material consumption) required to demonstrate compliance with the emission limit contained in Condition #61.

    b. All records required by Condition #62.

    The records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110)

64. **Facility Wide Conditions - Testing -** The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110)

65. **Facility Wide Conditions - Testing -** If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ**.**
(9 VAC 5-80-110)

Insignificant Emission Units

66. **Insignificant Emission Units -** The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720B)
0105	Polymer Plant L1 Monomer Filter Vent	5-80-720 B	VOC
0106	Polymer Plant L2 Monomer Filter Vent	5-80-720 B	VOC
0107	Polymer Plant L3 Monomer Filter Vent	5-80-720 B	VOC
0108	Polymer Plant L4 Monomer Filter Vent	5-80-720 B	VOC
0111	Polymer Plant L1 Chip Water Dryer Vent	5-80-720 B	PM/PM-10
0112	Polymer Plant L2 Chip Water Dryer Vent	5-80-720 B	PM/PM-10
0113	Polymer Plant L3 Chip Water Dryer Vent	5-80-720 B	PM/PM-10
0114	Polymer Plant L4 Chip Water Dryer Vent	5-80-720 B	PM/PM-10
0121	Wastewater Contingency Tank #3	5-80-720 B	VOC
0124	Virgin Glycol Tank A Vent	5-80-720 B	VOC
0125	Virgin Glycol Tank B Vent	5-80-720 B	VOC
0129	Recovered Glycol Tank A Vent	5-80-720 B	VOC
0130	Recovered Glycol Tank B Vent	5-80-720 B	VOC
0131	Recovered Glycol Tank C Vent	5-80-720 B	VOC
0132	Recovered Glycol Tank D Vent	5-80-720 B	VOC
0133	Recovered Glycol Tank E Vent	5-80-720 B	VOC
0134	Recovered Glycol Tank F Vent	5-80-720 B	VOC
0135	Fores Tank	5-80-720 B	VOC
0136	Blended Glycol Tank Vent	5-80-720 B	VOC
0139	Effluent Tank	5-80-720 B	VOC
0140	Polymer Plant Caustic Tank	5-80-720 B	VOC
0141	Dowtherm Tank	5-80-720 B	VOC

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720B)
0153	Still #1 Seal Pot Vent	5-80-720 B	VOC
0154	Still #2 Seal Pot Vent	5-80-720 B	VOC
0162	Polymer QC Lab Hood	5-80-720 B	VOC
0163	Polymer QC Lab Hood	5-80-720 B	VOC
0164	Polymer QC Lab Hood	5-80-720 B	VOC
0165	Polymer QC Lab Hood	5-80-720 B	VOC
0166	Autoclave Agitator Motor Air Vent	5-80-720 B	VOC
0167	Autoclave Agitator Motor Air Vent	5-80-720 B	VOC
0168	Autoclave Agitator Motor Air Vent	5-80-720 B	VOC
0169	Autoclave Agitator Motor Air Vent	5-80-720 B	VOC
0170	Ball Mill/Slurry Room Exhaust	5-80-720 B	VOC
0171	Polymer Maintenance Shop Room Vent	5-80-720 B	PM/PM-10
0172	Polymer Shop Welding Hood Vent	5-80-720 B	PM/PM-10
0174	Catalyst Preproom Hood	5-80-720 B	VOC
0175	Blue Dye Exhaust Hood	5-80-720 B	VOC
0176	Syloid Mix Area	5-80-720 B	PM/PM-10
0178	Propane Tank	5-80-720 B	VOC
0192	TA Unloading, Storage and Feed System Polymer	5-80-720 B	PM/PM-10
0193	TA Unloading, Storage and Feed System Polymer	5-80-720 B	PM/PM-10
0194a	IPA Unloading and Feed System for Line 1	5-80-720 B	PM/PM-10
0194b	Azelaic Acid Unloading and Feed System for Line 1	5-80-720 B	PM/PM-10
0195	IPA Unloading and Feed System for Line 2	5-80-720 B	PM/PM-10
0196	IPA Unloading and Feed System for Line 3	5-80-720 B	PM/PM-10
0200	Inorganic Solid Additive System for Lines 2 and 3	5-80-720 B	PM/PM-10
1021	Fuel Oil Tank #1	5-80-720 B	VOC
1022	Fuel Oil Tank #2	5-80-720 B	VOC
1023	Utilities Caustic Tank	5-80-720 B	VOC
1027	Wastewater Surge Tank	5-80-720 B	VOC
2042a	B83 Crystallizer Cyclone Vent	5-80-720 B	PM/PM-10
2042b	B83 Crystallizer	5-80-720 B	PM/PM-10
2043	Truck Loading Station Cyclone	5-80-720 B	PM/PM-10/VOC
2044	Chip Container Unloading System	5-80-720 B	PM/PM-10
3001-3019	Reclaim Chip Bunkers #1-19	5-80-720 B	PM/PM-10

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720B)
3020	Chip Transfer Cyclone	5-80-720 B	PM/PM-10
3021	Chip Transfer Cyclone #2	5-80-720 B	PM/PM-10
3022	Reclaim Tote System	5-80-720 B	PM/PM-10
4041	L40 Corona Treater	5-80-720 B	VOC
4071	L40 Extruder Area Vent	5-80-720 B	PM/PM-10
4274	L42 Clip & Web Cleaner Exhaust	5-80-720 B	PM/PM-10
4275	L42 Mezzanine Exhaust (relocated from L41)	5-80-720 B	PM/PM-10
4276	L42 Clip Cleaner Exhaust	5-80-720 B	PM/PM-10
4312	L43 Crystallizer – Steam	5-80-720 B	PM/PM-10
4441	L44 Corona Treater	5-80-720 B	VOC
4472	L44 Extruder Area Vent #1	5-80-720 B	PM/PM-10
4473	L44 Extruder Area Vent #2	5-80-720 B	PM/PM-10
4572	L45 Latex Prep. Room Vent	5-80-720 B	VOC
4573	L45 Latex Room Flex Exhaust Vent	5-80-720 B	VOC
4575	L45 Extruder Area Vent	5-80-720 B	PM/PM-10
4613	L46 Crystallizer – Steam	5-80-720 B	PM/PM-10
4641	L46 Web Slitting and Edge Trim Exhaust	5-80-720 B	PM/PM-10
4672	L46 Extruder Area Vent	5-80-720 B	PM/PM-10
4722	L47 Tinuvin Vent	5-80-720 B	VOC
4731	L47 Corona Treater #1	5-80-720 B	VOC
4741	L47 Corona Treater #2	5-80-720 B	VOC
4764	L47 Lab Hood Exhaust	5-80-720 B	VOC
4765	L47 QC Lab Oven Vent	5-80-720 B	VOC
4771	L47 Latex Prep Room Exhaust	5-80-720 B	VOC
4773	L47 Extruder Area Vent	5-80-720 B	PM/PM-10
5001	Heat Stabilizing Oven Zone 1 Burner Vent	5-80-720 B	PM/PM-10/VOC
5002	Heat Stabilizing Oven Zone 2 Burner Vent	5-80-720 B	PM/PM-10/VOC
5003	Heat Stabilizing Oven Zone 3 Burner Vent	5-80-720 B	PM/PM-10/VOC
5004	Heat Stabilizing Oven Zone 4 Burner Vent	5-80-720 B	PM/PM-10/VOC
5005	Heat Stabilizing Oven Zone 5 Burner Vent	5-80-720 B	PM/PM-10/VOC
5011	Heat Stabilizing Oven Zone 1 Exhaust	5-80-720 B	PM/PM-10/VOC
5012	Heat Stabilizing Oven Zone 2 Exhaust	5-80-720 B	PM/PM-10/VOC
5013	Heat Stabilizing Oven Zone 3 Exhaust	5-80-720 B	PM/PM-10/VOC

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720B)
5014	Heat Stabilizing Oven Zone 4 Exhaust	5-80-720 B	PM/PM-10/VOC
5015	Heat Stabilizing Oven Zone 5 Exhaust	5-80-720 B	PM/PM-10/VOC
6061-6065	Pelletizer Chip Water Dryers	5-80-720 B	PM/PM-10
6075	Flake and Fines Box-Out	5-80-720 B	PM/PM-10
6076	Railcar/Truck Chip Transfer	5-80-720 B	PM/PM-10
6079	Pelletizing Area Exhaust	5-80-720 B	PM/PM-10/VOC
6080	Pelletizing Area Exhaust	5-80-720 B	PM/PM-10/VOC
6081	Pelletizing Automatic Die/Filter Exhaust	5-80-720 B	PM/PM-10/VOC
6082	Pelletizing Automatic Die/Filter Exhaust	5-80-720 B	PM/PM-10/VOC
7001	Filter Shop Sump	5-80-720 B	VOC
7002	Pack Shop Caustic Tank	5-80-720 B	VOC
7005	Die Shop Sink Feed	5-80-720 B	VOC
7006	Die Shop A/C Hood	5-80-720 B	VOC
7007	Pack Shop Pump Room , 1st Floor	5-80-720 B	VOC
7008	Pack Shop Pump Room, 2nd Floor	5-80-720 B	VOC
7021	Ultrasonic Cleaner	5-80-720 B	PM/PM-10
7022	Main Shop Welding	5-80-720 B	PM/PM-10
7023	Forktruck Battery Hood (West)	5-80-720 B	VOC
7024	Forktruck Battery Hood (East)	5-80-720 B	VOC
8000	Innovation Center (I.C.) Ball Mill A	5-80-720 B	PM/PM-10
8001	I.C. Ball Mill B	5-80-720 B	PM/PM-10
8002	I.C. 1st Floor Fume Hoods	5-80-720 B	VOC
8003	I.C. 2nd Floor Fume Hoods	5-80-720 B	VOC
8004	I.C. Maintenance Shop	5-80-720 B	PM/PM-10
8005	I.C. Ball Mill Flex Vent	5-80-720 B	VOC
8006	I.C. Eductor Hood 1” Extruder	5-80-720 B	VOC
8007	I.C. Instrument Hood	5-80-720 B	VOC
8008	I.C. Technical Dryer Vent	5-80-720 B	VOC
8010	I.C. Storage Building Flex Line	5-80-720 B	VOC
8021	Tech Service Wet Lab	5-80-720 B	VOC
8022	Tech Service High Bay	5-80-720 B	VOC
8023	Tech Service Solvent Storage Exhaust	5-80-720 B	VOC
8031	Film QC Lab	5-80-720 B	VOC
8032	Main Latex Stirrer	5-80-720 B	VOC
8033	Main Latex Tank	5-80-720 B	VOC
8034	L40/L45 Stirrer	5-80-720 B	VOC
8035	L40/L45 Flex Line	5-80-720 B	VOC
8036	L40/L45 Lab Hood	5-80-720 B	VOC

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720B)
9060	P6 Slitter Blade Exhaust	5-80-720 B	PM/PM-10
9080	P8 Slitter Blade Exhaust	5-80-720 B	PM/PM-10
9090	P9 Slitter Blade Exhaust	5-80-720 B	PM/PM-10
9100	P10 Slitter Blade Exhaust	5-80-720 B	PM/PM-10
9112	P11 Slitter Blade Exhaust	5-80-720 B	PM/PM-10
9122	P12 Slitter Blade Exhaust	5-80-720 B	PM/PM-10
9123	P12 Slitter Main Drive	5-80-720 B	PM/PM-10
9131	P13 Slitter Blade Exhaust (cabinet)	5-80-720 B	PM/PM-10
9132	P13 Slitter Corona Treater	5-80-720 B	VOC
9510	P8-10 Slitter Edge Trim Cyclone	5-80-720 B	PM/PM-10
9520	Core Cutter	5-80-720 B	PM/PM-10

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.
(9 VAC 5-80-110)

Permit Shield & Inapplicable Requirements

67. **Permit Shield & Inapplicable Requirements -** Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
No inapplicable requirements identified.	-	-

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-110 and 9 VAC 5-80-140)

General Conditions

68. **General Conditions - Federal Enforceability -** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-110)

69. **General Conditions - Permit Expiration**

    a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

    b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

    c. If an applicant submits a timely and complete application for an initial permit or renewal under 9 VAC 5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

    d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

    e. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

    f. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

    (9 VAC 5-80-80, 9 VAC 5-80-110 and 9 VAC 5-80-170)

70. **General Conditions -Recordkeeping and Reporting -** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the 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 such analyses; and

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

(9 VAC 5-80-110)

71. **General Conditions -Recordkeeping and Reporting -** Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. 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.
(9 VAC 5-80-110)

72. **General Conditions -Recordkeeping and Reporting -** The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

    a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and

    b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

        i. Exceedances of emissions limitations or operational restrictions;

        ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

        iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."

(9 VAC 5-80-110)

73. **General Conditions - Annual Compliance Certification -** Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9 VAC 5-80-110, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110)

74. **General Conditions - Permit Deviation Reporting -** The permittee shall notify the Piedmont Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence

should also be reported in the next semiannual compliance monitoring report pursuant to Condition #72 of this permit.
(9 VAC 5-80-110 F.2)

75. **General Conditions - Failure/Malfunction Reporting -** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Piedmont Regional Office such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Piedmont Regional Office.
(9 VAC 5-80-110 and 9VAC5-20-180)

76. **General Conditions - Severability -** The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110)

77. **General Conditions - Duty to Comply -** The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110)

78. **General Conditions - Need to Halt or Reduce Activity not a Defense -** 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.
(9 VAC 5-80-110)

79. **General Conditions - Permit Modification -** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-110, 9 VAC 5-80-190 and 9 VAC 5-80-260)

80. **General Conditions - Property Rights -** The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110)

81. **General Conditions - Duty to Submit Information -** The permittee shall furnish to the Board, within a reasonable time, any information that the Board 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 Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110)

82. **General Conditions - Duty to Submit Information -** Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110)

83. **General Conditions - Duty to Pay Permit Fees -** The owner of any source for which a permit was issued under 9 VAC 5-80-50 through 9 VAC 5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9 VAC 5-80-2310 through 9 VAC 5-80-2350.
(9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

84. **General Conditions - Fugitive Dust Emission Standards -** During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

    e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

    (9 VAC 5-80-110 and 9 VAC 5-40-90)

85. **General Conditions - Startup, Shutdown, and Malfunction -** At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (9 VAC 5-80-110 and 9 VAC 5-40-20 E)

86. **General Conditions - Alternative Operating Scenarios -** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110)

87. **General Conditions - Inspection and Entry Requirements -** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

    a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

    b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

    c. Inspect at reasonable times 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 for the purpose of assuring compliance with the permit or applicable requirements.

    (9 VAC 5-80-110)

88. **General Conditions - Reopening for Cause -** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 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 9 VAC 5-80-80 F. The conditions for reopening a permit are as follows:

a. The permit shall be reopened if the Board or the administrator 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.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110)

89. **General Conditions - Permit Availability -** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-110 and 9 VAC 5-80-150)

90. **General Conditions - Transfer of Permits**

a. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-110 and 9 VAC 5-80-160)

91. **General Conditions - Permit Revocation or Termination for Cause -** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-110, 9 VAC 5-80-190 C, and 9 VAC 5-80-260)

92. **General Conditions - Duty to Supplement or Correct Application -** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall,

upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-110 and 9 VAC 5-80-80 E)

93. **General Conditions - Stratospheric Ozone Protection -** If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(9 VAC 5-80-110 and 40 CFR Part 82)

94. **General Conditions - Asbestos Requirements -** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110)

95. **General Conditions - Accidental Release Prevention -** If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(9 VAC 5-80-110 and 40 CFR Part 68)

96. **General Conditions - Changes to Permits for Emissions Trading -** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110)

97. **General Conditions - Emissions Trading -** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

    (9 VAC 5-80-110)

ATTACHMENT – CAM PLAN (PM/PM10) FOR FILM PLANT PROCESSING EQUIPMENT

Film Line 43 (ID#s 4307, 4313, 4314, 4372), Film Line 44 (ID#'s 4406, 4411, 4412, 4461, 4474), Film Line 45 (ID#'s 4511-4514, 4561, 4571), Film Line 46 (ID#'s 4606, 4611, 4661, 4671), Film Line 47 (ID#'s 4711, 4712, 4761, 4763), Primary Flake Bunkers (ID#'s 6001-6021), Intermediate Flake Bunkers (ID#'s 6041-6045), and Flake Dryers (ID#'s 6066, 6067, 6070, 6073)

CAM PLAN

Introduction and CAM Applicability

The 40 CFR Part 64 provisions address compliance assurance monitoring (CAM) for major stationary sources required to obtain Title V operating permits. The CAM rule is directed at emission units that rely on air pollution control equipment to achieve compliance with applicable standards. Monitoring requirements are established to ensure that affected control devices maintain a level of control that provides a reasonable assurance of compliance with applicable requirements. In accordance with §64.2(a) of the rule, CAM requirements apply to pollutant-specific emission units that meet all of the following criteria:

- The unit is subject to an emission limitation or standard for a regulated air pollutant (or surrogate of the regulated pollutant).
- A control device is used by the emission unit to achieve compliance with the emission limitation or standard.
- Pre-control device potential emissions of the regulated air pollutant are equal to or greater than 100 percent of the major source threshold (in tons per year).
- The unit is not otherwise exempt in accordance with §64.2(b) of the CAM rule.

CAM plans defining the monitoring approach for providing a reasonable assurance of compliance with emission limitations or standards are required for emission units meeting the above criteria. Deadlines for the submittal of CAM plans for affected emission units are based on the magnitude of emissions associated with the emission units. For large pollutant-specific emission units, those with potential emissions greater than 100 percent of the major source threshold taking into account the effect of controls (post-control emissions), CAM plan submittals are required as part of initial Title V permit applications filed on or after April 20, 1998, as part of an application for a significant Title V permit revision on or after April 20, 1998, or as part of an application for Title V permit renewal if not previously submitted. For other pollutant-specific emission units, CAM plan submittals are required as part of an application for Title V permit renewal.

DTF operates fabric filter (baghouse) air pollution control systems to reduce air pollutant emissions from various production operations. To determine which emission units are subject to CAM requirements, a CAM applicability assessment was completed prior to issuance of the current Title V permit. For the emission units determined to be subject to CAM requirements, a CAM plan was submitted as part of the previous Title V permit renewal process and subsequently incorporated in the current Title V permit. No changes to the existing CAM plan with respect to the monitoring approach are proposed in this Title V permit application for the renewal permit and the existing CAM plan is provided below for reference in Section 4.2. The CAM plan specifies the monitoring approach for all affected emission units and associated fabric filter control systems.

CAM Plan for Fabric Filter Control Systems

Emission Unit Information

Facility**:** DuPont Teijin Films (DTF), Chesterfield County, Virginia

Emission Unit Information:

Unit Ref. No.	Equipment Description
4307	L43 Coextrusion Convey System
4313	L43 Coextrusion Dryer System
4314	L43 Main Extruder Vacuum Pump
4372	L43 House Vacuum System
4406 & 4606	L44 / L46 Air Classifier (Common Baghouse 4606)
4411	L44 Main Dryer System
4412	L44 Coextrusion Dryer System
4461	L44 Cutters
4474	L44 Global Baghouse and House Vacuum System
4511	L45 Main Dryer System
4512	L45 Coextrusion Dryer System
4513	L45 Master Batch Dryer System
4514	L45 Main Extruder Vacuum Pump
4561	L45 Cutters
4571	L40 / L45 House Vacuum System
4611	L46 Main and Coextrusion Dryer Systems
4661	L46 Cutters
4671	L46 House Vacuum System
4711	L47 Main Dryer System
4712	L47 Main Extruder Vacuum Pump
4761	L47 Cutters
4763	L47 House Vacuum System
6001-6004	Primary Flake Bunkers #1 - #4 (Common Baghouses 6074 & 6078)
6005-6021	Primary Flake Bunker #5 - #21
6041-6045	Intermediate Flake Bunker #1 - #5
6066 & 6073	Flake Dryers #1 and #4 (Common Baghouses)
6067 & 6073	Flake Dryers #2 and #3 (Common Baghouses)
6070	Flake Dryer #5

Applicable Requirement(s):	NSR Permit (09/03/2020) - Conditions 5 and 6; 9 VAC 5 Ch. 40, Article 1 and 9 VAC 5 Ch. 50, Article 1
Regulated Pollutant:	PM, PM10
Emission Limits:	PM/PM10 emission limits and 5% opacity limit for each fabric filter
Monitoring Requirements:	Visible emissions

Monitoring Approach

The primary elements of the monitoring approach are summarized in the table below:

Monitoring Approach	
Indicator	Visible emissions.
Measurement Approach	Visible emissions from the exhaust of each fabric filter exhaust stack are to be monitored daily based on EPA Method 22-like procedures.
Indicator Range	A monitoring excursion is indicated by the presence of visible emissions. If visible emissions are observed equipment inspections and corrective actions are required.
Performance Criteria: Data Representatives	Visual observations are to be made at the emission point (at the exhaust location for each fabric filter baghouse).
Verification of Operational Status	Not applicable.
Quality Assurance and Control Practices	The visual emissions observer is to be familiar with conducting visual observations following Method 22-like procedures.
Monitoring Frequency	A visual observation is to be performed daily (each operating day) for each fabric filter exhaust.
Data Collection Procedures	Visual observations are to be recorded daily (on each operating day).
Averaging Periods	Not applicable.
Reporting	Monitoring excursions and information related to corrective actions taken are to be reported in Title V semiannual reports.

Justification for the Proposed Monitoring Approach

Fabric filter (baghouse) systems are used to control particulate matter emissions from various process operations at the DTF facility. Opacity or visible emissions observation is the commonly used method for baghouse performance monitoring. Daily visible emissions monitoring has been selected as the performance indicator since

it is indicative of proper operation and maintenance of baghouses. A properly operating baghouse (as applied to the types of emissions units present at the facility) will exhibit no visible emissions in its exhaust. An increase in visible emissions indicates reduced performance and efficiency of the baghouse.

The indicator range of no visible emissions was selected for two primary reasons. First, an increase in visible emissions is indicative of an increase in particulate matter emissions and second; a monitoring approach that does not rely on facility personnel to maintain Method 9 certification is desired. Although Method 22 directly applies to fugitive emission sources, the visible emissions observation approach specified by Method 22 is appropriate for application to stack emissions and does not require the observer to be Method 9 certified.