West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Title V Operating Permit Revision

For Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number: MM02 **SIC:** 2819, 2821, 2824
Name of Permittee: Celanese Polymer Products, LLC
Facility Name/Location: Washington Works
County: Wood County
Permittee Mailing Address: P.O. Box 2600, Washington, WV 26181-2600

Description of Permit Revision: This permit revision includes the changes made under R13-3574A which clarify that the Company is a minor source of Hazardous Air Pollutants (HAPs).

Title V Permit Information:
Permit Number: R30-10700208-2021 (5 of 14)
Issued Date: December 13, 2021
Effective Date: December 27, 2021
Expiration Date: December 13, 2026

Directions To Facility: From I-77, take Exit 176 to U.S. Route 50W toward Athens, Ohio. At the last exit prior to the bridge, exit from Route 50 Bypass onto DuPont Road (Route 892). At the light, turn left onto DuPont Road. Approximately one mile from the turn, the facility is on the right.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

Laura M. Crowder Laura M. Crowder Digitally signed by: Laura M. Crowder DN: CN = Laura M. Crowder email = Laura.M.Crowder@wv.gov C = US O = WV DEP OU = DAQ Date: 2025.03.21 10:28:22 -04'00'

Laura M. Crowder
Director, Division of Air Quality

March 21, 2025
Date Issued

Permit Number: **R30-10700208-2021 (5 of 14)**

Permittee: **~~DuPont~~ Celanese Polymer Products, LLC**

Facility Name: **Washington Works**

Business Unit: **Nylon Resins Production**

Mailing Address: **P. O. Box 2600, Washington, WV 26181-2600**

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

Facility Location:	Washington, Wood County, West Virginia
Mailing Address:	P. O. Box 2600, Washington, WV 26181-2600
Telephone Number:	(304) 863- 4240
Type of Business Entity:	Corporation
Facility Description:	Chemicals and Plastic Resins Manufacturing
SIC Codes:	2819, 2821, 2824
UTM Coordinates:	442.27 km Easting • 4,346.57 km Northing • Zone 17

Permit Writer: Jonathan Carney, P.E.

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

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

Table of Contents

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

1.1. Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Year Installed
		Salt Plant		
152Z-6T1E	None	152Z-6T1S	6T Feed Tank	2010
152Z-6T2E	None	152Z-6T2S	6T Salt Reactor	2010
155-T14E	None	155-T14S	Tanks #13-14	1988
157-1E	None	157-1S	Nylon Continuous Salt Conveyor #1	1978
157-2E	None	157-2S	Nylon Continuous Salt Conveyor #2	1978
157-3E	157-3C Scrubber	157-3S	Primary Reactor	1978
157-4E	157-4C Baghouse	157-4S	DDDA Unloading System	1988
157-6E	157-6C Scrubber	157-6S	612 Reactor	1988
Z107E	None	Z107	Secondary Salt Strike Reactor	1978
Z109E	None	Z109	Tank #15-16	1962
Z110E	None	Z110	Tanks #17-18	1962
Z111E	None	Z111	Tank #1	1946
Z112E	None	Z112	Tank #2	1946
Z113E	None	Z113	Tank #5	1946
Z114E	None	Z114	Tank #6	1946
Z115E	None	Z115	Tank #7	1946
Z116E	None	Z116	Tank #19	1946
Z118E	None	Z118	Ethylene Glycol – H_2O System	1957
Z125E	None	Z125	Sebacic Acid Conveyor	1998
Z128E	Z128C Roto-clone	Z128	Dump Station on Reactor #1 (East)	1973
Z128eastE	Z128eastC Scrubber	Z128east	Reactor #1 (East)	1973/2015
Z128westE	Z128westC Scrubber	Z128west	Reactor #2 (West)	1973/2015
Z131	None	Z131S	610 Salt Run Tank CV	1979
Z132	None	Z132S	Amorphous Salt Storage Tank CV	1979

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Year Installed
Z733E	None	Z733	HMD Storage Tank (includes two seal pots)	1973
Z744E	None	Z744	Tank #3	1946
Z745E	None	Z745	Tank #4	1946
		Autoclave Plant		
152Z-33E	None	152Z-V3	Dowtherm Vaporizer #3	1962
152Z-44E	None	152Z-V4	Dowtherm Vaporizer #4	1962
152Z-1E	152Z-1C Scrubber	152Z-AC1	Autoclave AC1	1946
		152Z-AC2	Autoclave AC2	1946
		152Z-AC3	Autoclave AC3	2001
		152Z-1S	Evaporator 1	1946
152Z-2E	152Z-2C Scrubber	152Z-AC4	Autoclave AC4	2001
		152Z-AC5	Autoclave AC5	2001
		152Z-AC6	Autoclave AC6	2001
		152Z-2S	Evaporator 2	1946
152Z-3E	152Z-3C Scrubber	152Z-AC7	Autoclave AC7	1946
		152Z-AC8	Autoclave AC8	1946
		152Z-AC9	Autoclave AC9	1955
		152Z-3S	Evaporator 3	1946
152Z-4E	152Z-4C Scrubber	152Z-AC10	Autoclave AC10	1955
		152Z-AC11	Autoclave AC11	1955
		152Z-AC12	Autoclave AC12	1962
		152Z-4S	Evaporator 4	1955
152Z-5E	152Z-5C Scrubber	152Z-AC13	Autoclave AC13	1962
		152Z-AC14	Autoclave AC14	1962
		152Z-AC15	Autoclave AC15	1965
		152Z-AC16	Autoclave AC16	1964
		152Z-5S	Evaporator 5	1963
152Z-42E	152Z-42C Scrubber	152Z-42S	Evaporator 6	1989
152Z-45E	152Z-45C Demister	152Z-45S	Extrusion Dies 1, 2, 6-15	1946
Fugitive	-----	152-45-1S	Extrusion Dies 3-5	1946
152Z-46E	152Z-46C Cyclone	152Z-46S	Autoclave Dry Air System	1960

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Year Installed
152Z-47E	None	152Z-47S	D Blenders Loading Conveying System	1969
153Z-2-E	None	153Z-B2S	D Unloading Conveying System	1969
153Z-3-E	None	153Z-B3S	#3 Bagline Feed Conveying System	1985
Z222E	None	Z222	Maintenance B/O Facility 500 lbs/hr	1970
Z256E	None	Z256	A/C Welding Booth 100 lbs/hr	1946
Z506E	None	Z506	Dow Storage Tank	1992
Z731E	None	Z731	Vacuum Pumps	1962
Z732E	None	Z732	Vacuum Jet	
Z803E	None	Z803	Additive Prep Facility Hood 2,400 cfm	1974
Z901E	None	Z901	A Drying System	1969
Z904E	None	Z904	B Loading System	1969
Z905E	None	Z905	B Unloading System	1969
Z907E	None	Z907	B & C Nitrogen System	1969
Z908E	None	Z908	C Loading System	1969
Z909E	None	Z909	C Unloading System	1969
Z915E	None	Z915	E Loading System	1969
Z916E	None	Z916	E Unloading System	1969
Z918E	None	Z918	E Drying System	1969
Z920E	None	Z920	F Loading System	1969
Z921E	None	Z921	F Unloading System	1969
Z923E	None	Z923	F Drying System	1969
Z925E	None	Z925	G Loading System	1969
Z926E	None	Z926	G Unloading System	1969
Z928E	None	Z928	H-1 Loading System	1971
Z929E	None	Z929	H-1 Drying System	1971
Z931E	None	Z931	H-2 Loading System	1971
Z932E	None	Z932	H-2 Drying System	1971
Z940E	None	Z940	Portable Blend Exhaust	1971
Z941E	None	Z941	A Unloading System	1969
Fugitive	None	ZAF	A/C Antifoam System	1984
Fugitive	None	ZLDAR	Autoclave Acetic Acid Addition System	1964 (Modified 2001)

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Year Installed
		MPW1		
Fugitive	None	Z308S	Reactor Scrubber Settling Tank	1968
Z403	None	Z403S	10A Conveyor System	1968
Z404	None	Z404S	TRX Conveyor System	1968
Z405	None	Z405S	Auxiliary Resin Conveyor	1968
Z406	None	Z406S	Rework Conveyor System	1968
Z410	Z410C Bagfilter	Z410S	Additive Feeders Exhaust	1968
Z411	Z411C Cyclone	Z411S	Cooler Screener Exhaust	1968
Z412	None	Z412S	#11 Conveyor	1968
Z610	None	Z610S	MPW1 #1 Conveyor	1968
Z614	None	Z614S	#3 Conveyor System	1968
Z623	None	Z623S	#12 Conveyor	1968
Z643	None	Z643S	SPP Heat System	1968
Z644	None	Z644S	SPP Cool System	1968
Z702	None	Z702S	Evaporator	1968
Z737	None	Z702S	Column Bypass	
Z703	Z703C Spray Condenser	Z703S	Reactor	1968
Z742	None	Z703S	Reactor Scrubber Bypass Auto	1968
Z743	None	Z703S	Reactor Scrubber Bypass Manual	1968
Z704	Z704C Condenser	Z704S	Separator (East & West)	1968
Z746	None	Z704S	Separator Sleeve Change	1968
Z705	None	Z705S	Finisher (East & West)	1968
Z707	None	Z707S	MPW-A Pelletizer & Cooler	1968
Z710	None	Z710S	Z-1 Extruder Vacuum System	1968
Z725	None	Z725S	Z-1 Extruder Die Exhaust	1968
		MPW-2		
252-60	None	252-60S	MPW2 Z2 PCS Filter Receiver (#17 Vac Conveyor)	1991
252-61	None	252-61S	MPW2 #14/17 Recycle PCS	1991
252-63	None	252-63S	MPW2 N Hold N2 Loop (North MPW2 Dryer)	1991
252-64	None	252-64S	MPW2 S Hold N2 Loop (South MPW2 Dryer)	1991

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Year Installed
252-73	None	252-73S	MPW2 Packout	1968
252-80	252-80-C Bagfilter	252-80S	MPW2 5th Level S/C Exhaust	1991
252-81	252-81-C Bagfilter	252-81S	MPW 5th Level S/C Vacuum	1976
254-01	None	254-01S	Vaporizer #1 14 MMBtu/hr	1968
254-02	None	254-02S	Vaporizer #2 14 MMBtu/hr	1968
254-05	None	254-05S	Vaporizer #5 16.5 MMBtu/hr	1977
254-06	None	254-06S	Vaporizer #6 18 MMBtu/hr	1991
254-07	None	254-07S	MPW2 West Dow Vacuum Pump	1994
254-08	None	254-08S	MPW2 East Dow Vacuum Pump	1994
255-06	None	255-06S	MPW2 #11 Recycle PCS	1977
255-07	None	255-07S	MPW2 #12/14 Recycle PCS	1977
255-08	None	255-08S	MPW2 #15 Recycle PCS	1977
255-56	None	255-56S	MPW2 #4 PCS	1977
255-57	None	255-57S	MPW2 #5 PCS	1977
255-58	None	255-58S	MPW2 #6 PCS	1977
255-59	None	255-59S	MPW2 Z-1 Box Line Vacuum PCS	1976
256-03	256-03-C Bagfilter	256-03S	MPW2 Insulation Room	1977
256-04	256-04-C Bagfilter	256-04S	MPW2 Satellite Dust Hood	1977
256-05	None	256-05S	MPW2 Satellite Exhaust	1977
256-06	None	256-06S	MPW2 Satellite Feed PCS	1977
256-110	None	256-110S	MPW2 Z-2 Feed PCS A	1991
256-111	None	256-111S	MPW Z-2 Feed PCS R	1991
256-112	None	256-112S	MPW2 Z-2 Feed PCS S	1991
256-113	None	256-113S	MPW2 Z-2 Feed PCS T	1991
256-114	256-114-C HEAF	256-114S	MPW2 Z-2 Extruder Die Exhaust	1991
256-115	None	256-115S	MPW2 Z-2 Extruder Vacuum Vent	1991
256-116	256-116-C Bagfilter	256-116S	MPW2 Z-2 Cooler Conveying System	1991
256-117	256-117-C Cyclone	256-117S	MPW2 Z-2 Cooler	1991

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Year Installed
256-119	256-119-C Cyclone	256-119S	MPW2 Dryer	1991
256-120	256-120-C Bagfilter	256-120S	MPW2 Z2 Feeder Exhaust	1991
256-70	None	256-59S	MPW2 Evaporator #2	1991
256-60	None	256-60S	MPW2 Evaporator #2	1977
256-62	256-62-C Condenser	256-62S	MPW2 Vessel #1	1991
256-71	None	256-71S	MPW2 Vessel #2	1976
256-72	None	256-72S	MPW2 Die Exhaust Hood	1976
Z612	None	Z612S	MPW1 #2 Conveyor System	1968
		Packout/Maintenance		
Fugitive	None	AC box fill	AC Box Fill from Tote Bins	1950
Fugitive	None	Z10BIN	AC Finished Product Blender	1989
Z329E	None	Z329	MPW Burnout Oven 500 lbs/hr	1978
Z330E	None	Z330	MPW Welding Booth 100 lbs/hr	1978
Fugitive	None	Z331-1	MPW-1 Solvent Parts Cleaner	1970's
Fugitive	None	Z331-2	MPW-2 Solvent Parts Cleaner	1980's
Fugitive	None	Z331-3	Autoclave Solvent Parts Cleaner	1960's
Fugitive	None	Z331-4	B-144 Solvent Parts Cleaner	2015
Fugitive	None	Z338	A/C Maintenance Bead Blast Unit	1990
Fugitive	None	Z339	MPW Maintenance Bead Blast Unit	1972
Fugitive	None	Z629	MPW Packout – Vibrating Conveyors	1978
Z801E	None	Z801	AC Zytel® Orbital Blender System	1981
Z804E	None	Z804	AC Bulk Truck Loading Facility	1979
Fugitive	None	Z809S	#3 Bagline Loading Conveyor	1972
Fugitive	None	Z810	AC No. 1 Bagline (Tote Bins)	1974
Fugitive	None	Z811S	#3 Bagline Rework Conveyor	1972
Fugitive	None	ZIJP	AC and MPW Packaging – Ink Jet Printers	1978
Z805E	None	Z805S	MPW-1 Sampling Ventilation Port	2019

1.2. Active R13, R14, and R19 Permits

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

Permit Number	Date of Issuance
R13-0278	01-14-1977
R13-0985	01-21-1988
R13-1686H	05-29-2018
R13-1145G	11-16-2018
R13-3574A	~~09-26-2022~~ 08-14-2024

2.0. General Conditions

2.1. Definitions

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

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

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

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

2.2. Acronyms

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

2.3. Permit Expiration and Renewal

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

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

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

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

2.4. Permit Actions

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

2.5. Reopening for Cause

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

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

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

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

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

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

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

2.7. Minor Permit Modifications

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

2.8. Significant Permit Modification

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

2.9. Emissions Trading

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

2.10. Off-Permit Changes

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

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

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

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

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

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

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

[45CSR§30-5.9.]

2.11. Operational Flexibility

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

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

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

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

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

[45CSR§30-5.8.c.]

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

2.12. Reasonably Anticipated Operating Scenarios

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

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

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

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

[45CSR§30-5.1.i.]

2.13. Duty to Comply

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

2.14. Inspection and Entry

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

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

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

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

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

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

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

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

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

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Reserved

2.18. Federally-Enforceable Requirements

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

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

2.19. Duty to Provide Information

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

2.20. Duty to Supplement and Correct Information

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

2.21. Permit Shield

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

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

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

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

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

[45CSR§30-5.6.c.]

2.22. Credible Evidence

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

2.23. Severability

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

2.24. Property Rights

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

2.25. Acid Deposition Control

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

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

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

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

[45CSR§30-5.1.d.]

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

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

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

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

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

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

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

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

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

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

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

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

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

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

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

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

In order to clarify the interrelationship of the two standards cited above, Section 3.7 is paraphrased as follows: If your storage structure incorporates reasonably achievable control measures in accordance with 45CSR§7-5.1., consisting of a full enclosure and particulate matter control device then the permittee shall operate the structure with no fugitive, visible emissions.
[45CSR13, R13-0985, B; 45CSR13, R13-1686, 4.1.3.4, 4.1.3.2; 45CSR§§7-5.1. and 3.7]

3.1.10. **Fugitives.** The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
[45CSR13, R13-0985, B; 45CSR13, R13-1686, 4.1.3.5; 45CSR§7-5.2.]

3.1.11. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR13, R13-0985, B; 45CSR§7-4.12.]

3.1.12. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR13, R13-0985, B; 45CSR13, R13-1686, 4.1.3.8; 45CSR§7-9.1.]

3.1.13. **Maintenance of Air Pollution Control Equipment.** The permittee shall install, operate, and maintain all air pollution control equipment in accordance with the manufacturer's specifications so as to provide the guaranteed minimum control efficiency, or with any more stringent control requirements as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§30-5.1.c]

3.1.14. The heavy-liquid LDAR streams within the Nylon Resin Manufacturing area are subject to the applicable requirements of the latest revision of the site wide permit R13-3574.
[45CSR13, R13-1145, B.10]

3.1.15. The permittee shall maintain total Hazardous Air Pollutant (HAP) emissions below 25 tons per year combined or 10 tons per year of any single HAP.
[45CSR13, R13-3574, 4.1.6]

3.2. Monitoring Requirements

3.2.1. Reserved.

3.3. Testing Requirements

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

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

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.

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

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to

determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

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

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

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

[WV Code §§ 22-5-4(a)(1~~4~~5-1~~5~~6) and 45CSR13]

3.4. Recordkeeping Requirements

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

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

[45CSR§30-5.1.c.2.A., 45CSR13, R13-1686, 4.4.1]

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

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

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

3.4.5. **Fugitives.** The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by 3.1.10 applied at the facility. These records shall be maintained on site.
[45CSR§30-5.1.c.]

3.4.6. **Record of Maintenance of Air Pollution Control Equipment.**

a. The permittee shall maintain maintenance records relating to the failure and/or repair of air pollution control devices and fugitive emissions control systems. Such records shall contain, at a minimum, the equipment ID number, a brief description of the equipment, the date of failure and/or repair, the nature of the problem, actions taken, and the name or initials of the person making the record entry. In the event of air pollution control equipment, fugitive emissions control system, or system failure, these records shall document the permittee's effort to maintain proper and effective operation of such equipment and/or systems;

b. Air pollution control equipment maintenance records shall be retained on-site. Certified records, signed by a Responsible Official or an Authorized Representative shall be made available to the Secretary or a duly authorized representative upon request; and

c. Maintenance records may be kept in electronic format. The document(s) shall be printed and certified by a Responsible Official or Authorized Representative upon request.

[45CSR§30-5.1.c.]

3.4.7. In order to comply with 45CSR7 the permittee shall maintain documentation of the date and time of each visible emission check, the name of the responsible observer, the results of the check, and if necessary, all corrective actions taken. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent. These records shall be made available to the Director or his duly authorized representative upon request.
[45CSR§30-5.1.c.]

3.4.8. The permittee shall maintain the site-wide Hazardous Air Pollutant (HAP) emissions records in accordance with condition 3.1.15 on a twelve (12) month rolling total. These records shall be made available for inspection upon request of the Secretary in accordance with Section 2.0 and shall be maintained in accordance with Section 3.0.
[45CSR13, R13-3574, 4.4.6]

3.5. Reporting Requirements

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

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

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

DAQ:

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

US EPA:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air, RCRA, and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8. **[45CSR§30-8.]**

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:

DEPAirQualityReports@wv.gov

US EPA:

R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:

DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

3.5.8. **Deviations.**

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

1. Reserved.

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

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

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

[45CSR§30-5.1.c.3.C.]

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

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

3.6. Compliance Plan

3.6.1. Reserved.

3.7. Permit Shield

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

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

a. 40 C.F.R. 60, Subpart K - "Standards of Performance For Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978." There are no petroleum liquid storage tanks in the Nylon Resins Production Area.

b. 40 C.F.R. 60, Subpart Ka - "Standards of Performance for Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984." There are no petroleum liquid storage tanks in the Nylon Resins Production Area.

c. 40 C.F.R. 60, Subpart Kb - "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984." There are no volatile organic liquid storage tanks in the Nylon Resins Production Area.

d. 40 C.F.R. 60, Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." The Nylon Resins Production Area does not produce as intermediates or final products any of the materials listed in 40 C.F.R. §60.489.

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

f. 40 C.F.R. 60, Subpart RRR - "Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes." The Nylon Resins Production Area does not produce any of the chemicals listed in 40 C.F.R. §60.707 as a product, co-product, by-product, or intermediate.

g. 40 C.F.R. 61, Subpart V - "National Emission Standards for Equipment Leaks (Fugitive Emissions Sources)." Applies to sources in VHAP service as defined in 40 C.F.R. §61.241. VHAP service involves chemicals that are not used in a manner that qualifies them under the rule in the Nylon Resins Production Area.

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

i. 40 C.F.R. 63, Subpart JJJ - "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins." The Nylon Resins Production Area does not produce the materials listed in 40 C.F.R. §63.1310.

j. 40 C.F.R 63, Subpart DDDDD – "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters." The site is no longer a major source of HAPs and is not subject to the major source MACT requirements.

~~j~~k. 40 C.F.R. 63, Subpart EEEE – "National Emission Standard for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)." The Nylon Resins Production Area does not distribute organic

liquids as defined by 40 C.F.R. §63.2406.

l. 40 C.F.R 63, Subpart GGGGG – "National Emission Standards for Hazardous Air Pollutants: Site Remediation." The site is no longer a major source of HAPs and is not subject to the major source MACT requirements in accordance with §63.7881(a)(3).

~~k~~m. 40 C.F.R.63, Subpart FFFF – "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing." The Nylon Resins Production Area does not manufacture any material or family of materials defined in 40 C.F.R. §63.2435(b)(1)(i) through (v).

n. 40 C.F.R 63, Subpart JJJJJJ – "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources." Subpart JJJJJJ states under the Boiler definition "Waste heat boilers, process heaters, and autoclaves are excluded from the definition of Boiler". The site's vaporizers and autoclaves do not meet the definition of boiler for this regulation.

~~l~~o. 40 C.F.R. 63, Subpart PPPP – "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products." The Nylon Resins Production Area does not produce an intermediate or final product that meets the definition of "surface coated" plastic part.

~~m~~p. 40 C.F.R. 63, Subpart WWWW - "National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production." The Nylon Resins Production Area does not engage in reinforced plastics composites production as defined in 40 C.F.R. §63.5785 and does not manufacture composite material as defined in 40 C.F.R. §63.5935.

~~n~~q. 40 C.F.R. 82, Subpart B - "Protection of Stratospheric Ozone." Requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing equipment need to be licensed. The Nylon Resins Production Area does not conduct motor vehicle maintenance involving CFCs on site.

~~o~~r. 40 C.F.R. 82, Subpart C – "Protection of Stratospheric Ozone." Bans non-essential products containing Class I substances and bans non-essential products containing or manufactured with Class II substances. The Nylon Resins Production Area does not use, manufacture, nor distribute these materials.

~~p~~s. 40 C.F.R. Part 64 – "Compliance Assurance Monitoring." At the time of this renewal there are no emission units at the facility that meet all three applicability criteria in 40 C.F.R. §§64.2(a)(1) through (3); therefore, CAM is not applicable.

4.0. Salt Plant Requirements

4.1. Limitations and Standards

4.1.1. Hourly and annual emissions from the nylon salt preparation and storage facility shall not exceed the amounts set forth as follows:

Emission Point	Source	Pollutant	Maximum lb/hr	Maximum lb/yr
157-4E	Conveying System/Bag Filter	Dodecanedioic Acid	0.0062	50
157-6E	Salt Reactor/Scrubber	Dodecanedioic Acid	0.01	15
		1,6 Hexanediamine	0.013	27
155-T14E	Salt Storage Tanks	1,6 Hexanediamine	0.20	267

Compliance with the above emission limits shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points 157-4E, 157-6E, and 155-T14E.
[45CSR13, R13-0985, A, Table 1, and B; 45CSR§7-4.1]

4.1.2. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(152Z-6T1E, 152Z-6T2E, 157-1E, 157-2E, 157-3E, 157-4E, 157-6E, Z733E, 155-T14E, Z744E, Z745E, Z109E, Z110E, Z111E, Z112E, Z113E, Z114E, Z115E, Z116E, Z107E, Z125E, Z128E, Z128eastE, Z128westE, Z131, and Z132)*
[45CSR13, R13-0985, B; 45CSR§§7-3.1. and 3.2]

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

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
152Z-6T1E	8.9
152Z-6T2E	3.39
157-1E	31.3
157-2E	31.3
157-3E	32.3
Z733E	29.2
Z744E	33.3
Z745E	33.7
Z109E	37.7

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
Z110E	37.7
Z111E	33.5
Z112E	33.2
Z113E	33.4
Z114E	33.1
Z115E	32.4
Z116E	37.6
Z107E	37.7
Z125E	5
Z128E	4.9
Z128eastE	16.4
Z128westE	13.6
Z131	7.5
Z132	17.8

(152Z-6T1E, 152Z-6T2E, 157-1E, 157-2E, 157-3E, Z733E, Z744E, Z745E, Z109E, Z110E, Z111E, Z112E, Z113E, Z114E, Z115E, Z116E, Z107E, Z125E, Z128E, Z128eastE, Z128westE, Z131, and Z132)
[45CSR13, R13-0985, B; 45CSR§7-4.1.]

4.1.4. Control devices 157-3C, 157-6C, and Z128C shall be operated in accordance with 3.1.13.
[45CSR§30-5.1.c.]

4.2. Monitoring Requirements

4.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2, the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within seventy-two (72) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.
[45CSR§30-5.1.c.]

4.3. Testing Requirements

4.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[**45CSR13, R13-0985, B; 45CSR§7-8.1]**

4.4. Recordkeeping Requirements

4.4.1. Records of the visible emission observations required by 4.2.1 shall be maintained in accordance with the facility wide recordkeeping provisions of 3.4.7.
[45CSR§30-5.1.c.]

4.4.2. The permittee shall maintain annual baghouse maintenance records for the baghouse on the DDDA Unloading System (157-4S). These records shall include the type(s) of maintenance conducted and the date(s) and time(s) it was conducted. Records shall be maintained on-site for a period of no less than five (5) years and made available to the Director or his duly authorized representative upon request. **[45CSR§30-5.1.c.]**

4.4.3. The permittee shall maintain control device maintenance records for 157-3C, 157-6C, and Z128C in accordance with 3.4.6.
[45CSR§30-5.1.c.]

4.5. Reporting Requirements

4.5.1. Reserved.

4.6 Compliance Plan

4.6.1. Reserved.

5.0 Autoclave Plant Requirements

5.1. Limits and Standards

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

Emission Limitations					
Emission Point	Source	Pollutant	Lb/hr	ton/yr	Phase
152Z-44E	152Z-V4	NO_x	2.66	11.66	Gas
		PM_{10}	0.17	0.74	Solid
		SO_2	0.09	0.10	Gas
		CO	0.11	0.47	Gas
		VOC	0.03	0.13	Gas
152Z-33E	152Z-V3	NO_x	2.66	11.66	Gas
		PM_{10}	0.17	0.74	Solid
		SO_2	0.09	0.10	Gas
		CO	0.11	0.47	Gas
		VOC	0.03	0.13	Gas
152Z-45E	152Z-45S	PM_{10}	2.98	7.50	Solid
		Butanal	0.02	0.05	Liquid
		CO	0.08	0.22	Gas
153Z-3-E	153Z-B3S	PM	0.04	0.18	Solid
153Z-2-E	153Z-B2S	PM	0.02	0.08	Solid
152Z-47E	152Z-47S	PM	0.51	2.24	Solid
152Z-46E	152Z-46S	PM	0.24	1.07	Solid
152Z-2E	152Z-2S	PM_{10}	0.09	0.38	Solid
	152Z-AC4	PM_{10}	0.09	0.20	Solid
	152Z-AC5	PM_{10}	0.09	0.20	Solid
	152Z-AC6	PM_{10}	0.151	0.33	Solid
	TOTAL	PM_{10}	0.328*	1.11	Solid
152Z-1E	152Z-1S	PM_{10}	0.10	0.42	Solid
	152Z-AC1	PM_{10}	0.63	0.69	Solid
	152Z-AC2	PM_{10}	0.63	0.69	Solid
	152Z-AC3	PM_{10}	0.09	0.20	Solid
	TOTAL	PM_{10}	0.82*	2.00	Solid
152Z-42E	152Z-42S	PM_{10}	0.48	2.1	Solid

*Total hourly emissions reflect scheduling limitations between autoclave pairs producing the same product. Thus totals for 152Z-2E are derived from the following maximum combination of simultaneously venting sources 152Z-2S, 152Z-AC4 or 152Z-AC5, and 152Z-AC6. Autoclave AC1 and AC2 also encounter the same scheduling limitations when totaling hourly emissions for 152Z-1E.

Compliance with the above hourly particulate emission limits shall demonstrate compliance with the less stringent 45CSR§2-4.1.b hourly particulate emission limits and the 45CSR§10-3.1.e hourly sulfur dioxides emission limits for emission points 152Z-33E and 152Z-44E; and the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points 152Z-45E, 153Z-3-E, 153Z-2-E, 152Z-47E, 152Z-46E, 152Z-2E, 152Z-1E, and 152Z-42E.
[45CSR13, R13-1145, A.1; 45CSR§2-4.1.b; 45CSR§7-4.1; 45CSR§10-3.1.e]

5.1.2. Production of Nylon on Autoclaves 3, 4, and 5 (152Z-AC3, 4, 5) shall be limited to producing only “type A” products as defined in permit application R13-1145C.
[45CSR13, R13-1145, A.2]

5.1.3. Production of Nylon on Autoclaves 1, 2, and 6 (152Z-AC1,2,6) shall be limited to producing "type A, 3C, and 7C" products as defined in permit application R13-1145C. This excludes any "type C" products.
[45CSR13, R13-1145, A.3]

5.1.4. Emissions, prior to release into the atmosphere, from sources 152Z-1S, 152Z-AC1,2,3, shall be routed through Scrubber 152Z-1C. Emissions prior to release into the atmosphere, from sources 152Z-2S, 152Z-AC4,5,6, shall be routed through Scrubber 152Z-2C. Emissions, prior to release into the atmosphere, from source 152Z-42S, shall be routed through Scrubber 152Z-42C. The scrubbers, referenced above, shall be maintained and operated to perform to the specifications addressed in permit application R13-1145C (see 5.4.2).
[45CSR13, R13-1145, A.4]

5.1.5. Emissions, prior to release into the atmosphere, from sources 152Z-45S (Polymer Dies) shall be routed through demister 152Z-45C. The demister, referenced above, shall be maintained and operated to perform to the specifications addressed in permit application R13-1145C (see 5.4.6).
[45CSR13, R13-1145, A.5]

5.1.6. During operation of the permitted facilities described in R13-1145C, the following conditions apply to the polymer casting lines, emission sources 152Z-45S (Polymer Dies).

The following matrix shall govern the casting of the Polymer types C, 3C and 7C. Not more than the indicated number of lines shall be allowed to cast a particular Polymer type at any one time. If the casting line is not processing one of the indicated polymer types, it shall be permitted to cast any of the Polymer A type resins.

Casting Matrix			
	Polymer C	Polymer 3C	Polymer 7C
Number of Casting Lines Permitted to Process Indicated Polymer Type	1	1	2
	1	3	1
	1	5	0
	0	2	3
	0	4	2
	0	6	1
	0	9	0

[45CSR13, R13-1145, A.6]

5.1.7. Emissions, prior to release to atmosphere, from source 152Z-46S shall be routed through cyclone 152Z-46C. The cyclone, referenced above, shall be maintained and operated to perform to the specifications addressed in permit application R13-1145C.
[45CSR13, R13-1145, A.7]

5.1.8. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(152Z-1E, 152Z-2E, 152Z-3E, 152Z-4E, 152Z-5E, 152Z-42E, 152Z-45E, 152Z-46E, 152Z-47E, 153Z-2-E, 153Z-3-E, Z901E, Z941E, Z904E, Z905E, Z908E, Z909E, Z907E, Z915E, Z918E, Z916E, Z920E, Z923E, Z921E, Z925E, Z942E, Z926E, Z928E, Z929E, Z931E, Z932E, Z940E, Z803E, Z731E, Z506E, Z222E, and Z256E)*
[45CSR§§7-3.1. and 3.2.]

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

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
152Z-3E	12.7
152Z-4E	12.7
152Z-5E	12.7
Z901E	5
Z941E	5
Z904E	5
Z905E	5
Z908E	5
Z909E	5
Z907E	5
Z915E	5
Z918E	5
Z916E	5
Z920E	5
Z923E	5
Z921E	5
Z925E	5
Z942E	5
Z926E	5
Z928E	5
Z929E	5
Z931E	5
Z932E	5
Z940E	11.2
Z803E	1
Z731E	0.2

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
Z506E	1
Z222E	0.6

(152Z-3E, 152Z-4E, 152Z-5E, Z901E, Z941E, Z904E, Z905E, Z908E, Z909E, Z907E, Z915E, Z918E, Z916E, Z920E, Z923E, Z921E, Z925E, Z942E, Z926E, Z928E, Z929E, Z931E, Z932E, Z940E, Z803E, Z731E, Z506E, and Z222E) **[45CSR§7-4.1.]**

5.1.10. Maintenance operations shall be exempt from the provisions of 45CSR§7-4 provided that at all times the owner or operator shall conduct maintenance operations in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source. *(Z256E)*
[45CSR§7-10.3]

5.1.11. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. *(152Z-33E, 152Z-44E)*
[45CSR§2-3.1]

5.1.12. Control devices 152Z-1C, 152Z-2C, 152Z-3C, 152Z-4C, 152Z-5C, 152Z-42C, 152Z-45C, and 152Z-46C shall be operated in accordance with 3.1.13.
[45CSR§30-5.1.c.]

5.2. Monitoring Requirements

5.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2, the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within seventy-two (72) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.
[45CSR§30-5.1.c.]

5.3. Testing Requirements

5.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests.

Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1]

5.3.2. The Z Area Acetic Acid System is exempted from the leak detection and repair requirements under 45 CSR §21-40.3.a.2 for the performance of light-liquid LDAR. Although the Z Area Acetic Acid System is exempted from the frequency of testing as described in § 45-21-37, LDAR testing of this unit or certification of emissions using approved fugitive emission factors will be required every three years, or upon request by the Director or his or her duly authorized representative. Waiver or rescheduling of LDAR testing every three years may be granted by the Director if a written request and justification are submitted by the COMPANY. Units exempted from LDAR monitoring as required by CSR 45 § 21-37, are not exempted from testing which may be required under any other applicable State or Federal regulations, orders or permits. The Director may periodically require verification by the Company that maintenance and repair procedures associated with approved exemptions are continued and practiced.
[45CSR13, R13-1145, Condition B.9 (ZLDAR)]

5.4. Recordkeeping Requirements

5.4.1. Records of the visible emission observations required by 5.2.1 shall be maintained in accordance with the facility wide recordkeeping provisions of 3.4.7.
[45CSR§30-5.1.c.]

5.4.2. In order to demonstrate compliance with Section 5.1.4, the permittee shall monitor and keep the following records on scrubbers 152Z-1C, 152Z-2C, and 152Z-42C:

On a daily basis the following operating parameters shall be recorded for each scrubber: operating hours, liquid flow rate, and liquid temperature. The average liquid flow rate and average temperature will be recorded every hour for 45CSR7 purposes. Equivalent example log sheets are supplied in the Appendix (Attachment #5).

The operating parameters are limited by R13-1145 as follows: The hourly average scrubbing liquid flow rate for scrubbers 152Z-1C and 152Z-2C shall not fall below 170 gpm. The hourly average scrubbing liquid flow for scrubber 152Z-42C shall be maintained at or above 145 gpm. The hourly average of the scrubbing liquid temperature for all three control devices referenced above shall not exceed 55 °C. If the recorded parameters should fall outside the given ranges, while the process is in operation, then the permittee shall calculate the emissions to each impacted vent point using the steps outlined in Attachment #9. If the calculated emissions for this event do not exceed the vent-specific permit limits, then the parameter excursion is not a deviation from the monitoring requirement. The Permittee shall retain the calculations for the event for five years from the date of the event.

If the calculated emissions for the event exceed the permit limit, then the event is a deviation from the emission limit but not from the monitoring requirement. For each emission exceedance, the facility shall prepare a record containing the time and duration of operations outside the given parameter range, any corrective actions taken, and a preventative action plan designed to eliminate future malfunctions or upsets shall be prepared.
[45CSR13, R13-1145, B.1]

5.4.3. Records shall be kept for evaporators 152Z-42S, 152Z-2S, and 152Z-1S in the form of or equivalent to the example log sheets found in the Appendix (Attachment #2).
[45CSR13, R13-1145, B.2]

5.4.4. In order to demonstrate compliance with Section 5.1.6, the casting matrix checklist or equivalent as supplied in the Appendix (Attachment #1) shall be maintained. The casting dies 152Z-45S (Polymer Dies) shall also keep records in the form of or equivalent to the example log sheets found in the Appendix (Attachment #3).
[45CSR13, R13-1145, B.3]

5.4.5. In order to demonstrate compliance with Sections 5.1.2, 5.1.3, and 5.1.4, autoclaves 152Z-AC(1-6) shall keep records in the form of or equivalent to the example log sheets found in the Appendix (Attachment #4).
[45CSR13, R13-1145, B.4]

5.4.6. In order to demonstrate compliance with Section 5.1.5, demister 152Z-45C shall keep records in the form of or equivalent to the example log sheet found in the Appendix (Attachment #6). The daily average pressure drop across the demister filter shall be greater than or equal to 2.5" w.c, (inches water column) or, if below, the daily average gauge pressure (vs. atmosphere) shall be more negative than -17" w.c. (inches water column). If both conditions are not met, the packing shall be inspected for possible replacement or redistribution.
[45CSR13, R13-1145, B.5]

5.4.7. The natural gas fired vaporizers venting to emission points 152Z-44E and 152Z-33E shall demonstrate compliance with 45CSR§2A-7.1.a.1 by maintaining records of the date and time of startups and shutdowns as well as the quantity of fuel consumed on a monthly basis. The quantity of fuel shall be expressed as a combined total of the fuel used by each gas fired vaporizer.
[45CSR13, R13-1145, B.6; 45CSR§2-8.3.c; 45CSR§2A-7.1.a.1]

5.4.8. The D Blender Loading Conveying System, 152Z-47S, shall be required to keep records on the pounds of material transferred and estimated emissions generated on a monthly basis. These records shall be in the form of or equivalent to the example log sheet found in the Appendix (Attachment #7)**.** In addition, the permittee shall also maintain records of the monthly hours of operation.
[45CSR13, R13-1145, B.7; 45CSR§30-5.1.c]

5.4.9. Emission source 152Z-46S, autoclave dry air system, shall be required to record on a monthly basis the amount of nylon fines collected from the 80% efficient cyclone in order to quantify emissions released to the atmosphere. These records shall be in the form of or equivalent to the example log sheet found in the Appendix (Attachment #8). Section 5.1.1 limits the amount of nylon fines collected to 4.28 tons per year.
[45CSR13, R13-1145, B.8]

5.4.10. The permittee shall maintain control device maintenance records for 152Z-1C, 152Z-2C, 152Z-3C, 152Z-4C, 152Z-5C, 152Z-42C, 152Z-45C, and 152Z-46C in accordance with 3.4.6.
[45CSR§30-5.1.c.]

5.4.11. The permittee shall monitor all maintenance operations as required by Section 5.1.10 to ensure that a system to minimize particulate emissions has been installed or implemented. Records shall be maintained on site, which state the types of particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.
[45CSR§30-5.1.c.]

5.5. Reporting Requirements

5.5.1. Reserved.

5.6 Compliance Plan

5.6.1. Reserved.

6.0. Melt Polymer MPW1/MPW2 Requirements

6.1. Limits and Standards

6.1.1. Emission rates shall not exceed the following:

Emission Point	Equipment Description	Pollutant	Emission Limits	
			pph	tpy
252-60	Z-2 PCS Filter Receiver	Particulate	0.02	0.07
252-61	#17 Recycle PCS	Particulate	0.01	0.01
252-63	N Hold N2 Loop	Particulate	0.01	0.01
252-64	S Hold N2 Loop	Particulate	0.01	0.01
252-73	MPW Packout	Particulate	1.30	1.54
252-80	5^{th} Level S/C Exhaust	Particulate	0.01	0.04
252-81	5^{th} Level S/C Vacuum	Particulate	0.01	0.01
254-01	MPW No. 1 Vaporizer	CO NO_x Particulate SO_2 VOC	0.11 2.66 0.17 0.01 0.03	0.47 11.66 0.74 0.04 0.13
254-02	MPW No. 2 Vaporizer	CO NO_x Particulate SO_2 VOC	0.11 2.66 0.17 0.01 0.03	0.47 11.66 0.74 0.04 0.13
254-05	MPW No. 5 Vaporizer	CO NO_x Particulate SO_2 VOC	0.13 3.14 0.20 0.01 0.04	0.55 13.74 0.87 0.05 0.16
254-06	MPW No. 6 Vaporizer	CO NO_x Particulate SO_2 VOC	0.62 5.12 0.14 0.02 0.10	2.71 22.42 0.59 0.05 0.43
254-07	MPW West Dow Vacuum Pump	Particulate	0.36	1.58
254-08	MPW East Dow Vacuum Pump	Particulate	0.36	1.58
255-06	No. 11 Recycle PCS	Particulate	0.01	0.02
255-07	No. 12/14 Recycle PCS	Particulate	0.01	0.02
255-08	No. 15 Recycle PCS	Particulate	0.01	0.02
255-56	MPW No. 4 PCS	Particulate	0.02	0.08
255-57	MPW No. 5 PCS	Particulate	0.02	0.09
255-58	MPW No. 6 PCS	Particulate	0.02	0.08
255-59	Z-2 Box Line Vacuum PCS	Particulate	0.11	0.46
256-03	MPW Insulation Room	Particulate	0.01	0.02
256-04	MPW Satellite Dust Hood	Particulate	0.01	0.04
256-05	MPW-2 Satellite Exhaust	CO Particulate VOC	0.01 0.01 0.01	0.01 0.04 0.01
256-06	MPW Satellite Feed PCS	Particulate	0.01	0.01
256-60	MPW-2 Evaporator No. 2	Particulate	14.50	1.51
256-62	MPW-2 Vessel No. 1	Particulate	0.96	4.18
256-70	MPW-2 HMD Removal Column	Particulate	0.44	1.93
256-71	MPW-2 Vessel No. 2	CO Particulate VOC	0.05 0.42 0.03	0.22 1.81 0.11
256-72	MPW Die Exhaust Hood	CO Particulate VOC	0.06 0.43 0.03	0.23 1.88 0.12

Emission Point	Equipment Description	Pollutant	Emission Limits	
			pph	tpy
256-110	Z-2 Feed PCS A	Particulate	0.01	0.05
256-111	Z-2 Feed PCS R	Particulate	0.01	0.03
256-112	Z-2 Feed PCS S	Particulate	0.02	0.06
256-113	Z-2 Feed PCS T	Particulate	0.01	0.03
256-114	Z-2 Extruder Die Exhaust	CO Particulate VOC	0.03 0.01 0.03	0.11 0.04 0.11
256-115	Z-2 Extruder Vacuum Vent	CO Particulate VOC	0.03 0.08 0.01	0.11 0.35 0.01
256-116	Z-2 Cooler Conveying System	Particulate	0.02	0.07
256-117	Z-2 Cooler	Particulate	0.03	0.11
256-119	MPW-2 Dryer	Particulate	0.16	0.71
256-120	MPW2 Z-2 Feeder Exhaust	Particulate	0.03	0.11

Compliance with the above hourly particulate emission limits shall demonstrate compliance with the less stringent 45CSR§2-4.1.b hourly particulate emission limits and the 45CSR§10-3.1.e hourly sulfur dioxides emission limits for emission points 254-01, 254-02, 254-05, and 254-06; and the less stringent 45CSR§7-4.1 hourly particulate emission limits for emission points 252-60, 252-61, 252-63, 252-64, 252-73, 252-80, 252-81, 254-07, 254-08, 255-06, 255-07, 255-08, 255-56, 255-57, 255-58, 255-59, 256-03, 256-04, 256-05, 256-06, 256-60, 256-62, 256-70, 256-71, 256-72, 256-110, 256-111, 256-112, 256-113, 256-114, 256-115, 256-116, 256-117, 256-119, and 256-120.
[45CSR13, R13-1686, 4.1.1 and 4.1.3.3; 45CSR§2-4.1.b; 45CSR§7-4.1; 45CSR§10-3.1.e]

6.1.2. The permittee shall not exceed maximum hourly production rates and maximum yearly production rates as listed in the following table:

Product Name	**Maximum Hourly (Production Units per Hour)**	**Maximum Annual (Production Units per Year)**
6/6 Nylon		
(a) Virgin Nylon Basis	10.5	91,980
(b) Total Nylon Basis	10.9	95,660
Nylon Compounded Resins	4.8	42,048

[45CSR13, R13-1686, 4.1.2]

6.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(252-60, 252-61, 252-63, 252-64, 252-73, 252-80, 252-81, 254-07, 254-08, 255-06, 255-07, 255-08, 255-56, 255-57, 255-58, 255-59, 256-03, 256-04, 256-05, 256-06, 256-60, 256-62, 256-70, 256-71, 256-72, 256-110, 256-111, 256-112, 256-113, 256-114, 256-115, 256-116, 256-117, 256-119, 256-120, Z702, Z703, Z704, Z705, Z707, Z737, Z742, Z743, Z746, Z610, Z612, Z643, Z644, Z614, Z403, Z404, Z405, Z406, Z710, Z725, Z410, Z411, Z412, Z623, and Z805E)* **[45CSR13, R13-1686, 4.1.3.1; 45CSR§§7-3.1. and 3.2.]**

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

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
Z702	3.6
Z703	2.4
Z704	1.6
Z705	1.4
Z707	7.8
Z737	3.6
Z742	2.4
Z743	2.4
Z746	1.6
Z610	9
Z612	25
Z643	3.4
Z644	3.4
Z614	25
Z403	3.8
Z404	3.4
Z405	3.4
Z406	3.4
Z710	6.5
Z725	6.5
Z410	6.5

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
Z411	6.5
Z412	7.5
Z623	25
Z805E	3.4

(Z702, Z703, Z704, Z705, Z737, Z742, Z743, Z746, Z610, Z612, Z643, Z644, Z614, Z403, Z404, Z405, Z406, Z710, Z725, Z410, Z411, Z412, Z623, and Z805E)
[45CSR13, R13-1686, 4.1.3.3; 45CSR§7-4.1.]

6.1.5. For the natural gas-fired process heaters [254-01S, 254-02S, 254-05S, and 254-06S], the permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR13, R13-1686, 4.1.4., 45CSR§2-3.1]

6.1.6. Control devices 252-80-C, 252-81-C, 256-03-C, 256-04-C, 256-62-C, 256-114-C, 256-116-C, 256-117-C, 256-119-C, and 256-120-C shall be operated in accordance with the following condition:

Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-1686, 4.1.5]

6.1.7. Control devices Z703C, Z704C, Z410C, and Z411C shall be operated in accordance with 3.1.13.
[45CSR§30-5.1.c.]

6.2. Monitoring Requirements

6.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2, for all emission points except Z805E the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within seventy-two (72) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) after the visible emission and the sources are operating at normal conditions.
[45CSR§30-5.1.c.]

6.3. Testing Requirements

6.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR13, R13-1686, 4.1.3.6; 45CSR§7-8.1]

6.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[**45CSR§7-8.2., 45CSR13, R13-1686, 4.1.3.7**]

6.4. Recordkeeping Requirements

6.4.1. Records of the visible emission observations required by 6.2.1 shall be maintained in accordance with the facility wide recordkeeping provisions of 3.4.7.
[45CSR§30-5.1.c.]

6.4.2. In order to verify compliance with annual emission rates set forth in 6.1.1 and the production limits of 6.1.2, the permittee shall submit to the Director of Division of Air Quality upon his request, emission data or have production data available for inspection.
[45CSR13, R13-1686, 4.4.4., 45CSR§30-5.1.c.]

6.4.3. The natural gas fired vaporizers (254-01S, 254-02S, 254-05S, and 254-06S) venting to emission points 254-01, 254-02, 254-05, and 254-06 shall maintain records of maintenance and the date and time of startups and shutdowns as well as the quantity of fuel consumed on a monthly basis. The quantity of fuel shall be expressed as a combined total of the fuel used by each gas fired vaporizer.
[40 C.F.R. §60.48c(g)(2), 45CSR§2-8.3.c; 45CSR§2A-7.1.a.1., 45CSR13, R13-1686, 4.4.5 & 4.4.6; 45CSR16]

6.4.4. The permittee shall maintain control device maintenance and malfunction records for 252-80-C, 252-81-C, 256-03-C, 256-04-C, 256-62-C, 256-114-C, 256-116-C, 256-117-C, 256-119-C, and 256-120-C in accordance with the following conditions:

Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

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

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

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

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

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

[45CSR13, R13-1686, 4.4.2 & 4.4.3]

6.4.5. The permittee shall maintain control device maintenance records for Z703C, Z704C, Z410C, and Z411C in accordance with 3.4.6.
[45CSR§30-5.1.c.]

6.5. Reporting Requirements

6.5.1. Reserved.

6.6 Compliance Plan

6.6.1. Reserved.

7.0. Pack Out / Maintenance Requirements

7.1 Limitations and Standards

7.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. *(Z329E, Z330E, Z803E, Z804E, Z801E)* **[45CSR§§7-3.1. and 3.2.]**

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

Emission Points	45CSR7 Hourly Particulate Emission Limit pph
Z329E	0.6
Z803E	1.8
Z804E	7
Z801E	19

(Z329E, Z803E, Z804E, and Z801E) **[45CSR§7-4.1.]**

7.1.3. Maintenance operations shall be exempt from the provisions of 45CSR§7-4 provided that at all times the owner or operator shall conduct maintenance operations in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source. *(Z330E)*
[45CSR§7-10.3]

7.1.4. The owner or operator of a cold solvent cleaner facility shall:
1. Provide a permanent, legible, conspicuous label, summarizing the operating requirements;
2. Store waste solvent in covered containers;
3. Close the cover whenever parts are not being handled in the cleaner;
4. Drain the cleaned parts until dripping ceases;
5. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge (psig); and
6. Degrease only materials that are neither porous nor absorbent

[45CSR§§21-30.3.a.4 through 9. State-Enforceable only (Z331-1, Z331-2, Z331-3, Z331-4)]

7.2. Monitoring Requirements

7.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2, the permittee shall conduct opacity monitoring and record keeping for all emission points and equipment subject to an opacity limit under 45CSR7. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval (no less than 1 minute) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within seventy-two (72) hours of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) after the visible emission and the sources are operating at normal conditions.
[45CSR§30-5.1.c.]

7.3. Testing Requirements

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

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

7.4. Recordkeeping Requirements

7.4.1. Records of the visible emission observations required by 7.2.1 shall be maintained in accordance with the facility wide recordkeeping provisions of 3.4.7.
[45CSR§30-5.1.c.]

7.4.2. The permittee shall monitor all maintenance operations as required by 7.1.3. to ensure that a system to minimize particulate emissions has been installed or implemented. Records shall be maintained on site stating the types of particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.
[45CSR§30-5.1.c.]

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

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

b. The results of all tests conducted in accordance with the requirements in section 45CSR§21-30.4 (7.3.2).

[45CSR§21-30.5. State-Enforceable only; 45CSR§30-5.1.c.]

7.5. Reporting Requirements

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

a. The name and location of the facility;

b. The subject sources that caused the excess emissions;

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

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

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

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

[45CSR§21-5.2]

7.6 Compliance Plan

7.6.1. Reserved.

~~8.0. 40 C.F.R. 63, Subpart DDDDD Boiler MACT (254-01S, 254-02S, 254-05S, 254-06S, 152Z-V3, and 152Z-V4)~~

~~8.1 Limitations and Standards~~

~~8.1.1. For the Vaporizers 254-01S, 254-02S, 254-05S, 254-06S, 152Z-V3, and 152Z-V4, the permittee shall comply with the requirements of 40 C.F.R. 63, Subpart DDDDD "National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" by January 31, 2016, except as provided in §63.6(i).~~
~~**[45CSR34; 40 C.F.R. §§63.7485 and 63.7495(b)]**~~

~~8.1.2. **Periodic Tune-ups.** The existing process heaters (254-01S, 254-02S, 254-05S, 254-06S, 152Z-V3, and 152Z-V4) have continuous oxygen trim systems that maintain an optimum air-to-fuel ratio, therefore the permittee shall perform a tune-up as specified in 40 C.F.R. §63.7540(a)(12). The tune-up must be conducted every 5 years; the burner inspection specified in paragraph (i) of this condition may be delayed until the next scheduled or unscheduled shut down, but each burner must be inspected once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up.~~

~~(i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;~~

~~(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;~~

~~(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);~~

~~(iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;~~

~~(v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and~~

~~(vi) Maintain on site and submit, if requested by the Administrator, a report containing the information in paragraphs (vi)(A) through (C) of this condition.~~

~~(A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;~~

~~(B) A description of any corrective actions taken as a part of the tune-up; and~~

~~(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.~~

~~[45CSR34; 40 C.F.R. §63.7500(a)(1), Table 3, Item #1; 40 C.F.R. §63.7505(a); 40 C.F.R §63.7515(d); 40 C.F.R. §§63.7540(a)(12) and (13); 40 C.F.R. §§63.7540(a)(10)(i) through (vi)]~~

8.1.3. **~~One-time Energy Assessment.~~** ~~The permittee shall perform a one-time energy assessment performed by a qualified energy assessor meeting the requirements of Table 3 of 40 C.F.R 63, Subpart DDDDD. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to h. of this Condition appropriate for the on-site technical hours listed in 40 C.F.R. §63.7575:~~

~~a. A visual inspection of the boiler or process heater system.~~

~~b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.~~

~~c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.~~

~~d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.~~

~~e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.~~

~~f. A list of cost effective energy conservation measures that are within the facilities control.~~

~~g. A list of the energy savings potential of the energy conservation measures identified.~~

~~h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.~~

~~[45CSR34; 40 C.F.R. §63.7500(a)(1), Table 3, Item #4; 40 C.F.R. §63.7505(a)]~~

~~8.1.4. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.~~
~~[45CSR34; 40 C.F.R. §63.7500(a)(3)]~~

~~8.2 Monitoring Requirements~~

~~8.2.1. Reserved.~~

~~8.3 Testing Requirements~~

~~8.3.1. Reserved.~~

~~8.4 Recordkeeping Requirements~~

~~8.4.1. The permittee shall keep a copy of each notification and report submitted to comply with 40 C.F.R 63 Subpart DDDDD, including all documentation supporting the Initial Notification or Notification of Compliance Status or semiannual compliance reports submitted, according to the requirements in §63.10(b)(2)(xiv) and §63.10(b)(2)(viii).~~
~~[45CSR34; 40 C.F.R. §§63.7555 (a)(1) and (2)]~~

~~8.4.2. The permittee shall keep the records in a form suitable and readily available for expeditious review, according to §63.10(b)(1). Each record will be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. Each record will be kept on site, or accessible from on site, for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). Records may be kept off site for the remaining 3 years~~
~~[45CSR34; 40 C.F.R. §§63.7560(a), (b), and (c)]~~

~~8.4.3. For the Vaporizers 254-01S, 254-02S, 254-05S, 254-06S, 152Z-V3, and 152Z-V4, the permittee shall comply with recordkeeping requirements of 40 C.F.R. §63.7540(a)(10)(vi) and maintain a report containing the tune-up data specified by 40 C.F.R. §§63.7540(a)(10)(vi)(A) through (C):~~

~~a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;~~

~~b. A description of any corrective actions taken as a part of the tune-up; and~~

~~c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.~~

~~[45CSR34; 40 C.F.R. §§63.7540(a)(10)(vi)(A) through (C)]~~

~~8.4.4. If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to 40 C.F.R. 63 Subpart DDDDD, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under part 63, other gas 1 fuel, or gaseous fuel subject to another subpart of part 63 or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.~~
~~[45CSR34; 40 C.F.R. §63.7555(h)]~~

~~8.5 Reporting Requirements~~

~~8.5.1. A compliance report must be submitted by the permittee according to 40 C.F.R. §63.7550(b); the process heaters 254-01S, 254-02S, 254-05S, 254-06S, 152Z-V3, and 152Z-V4 are subject only to a requirement to conduct a 5-year tune-up and not subject to emission limits or operating limits, the compliance reports will be submitted every 5 years instead of a semi-annual compliance report.~~
~~[45CSR34; 40 C.F.R. §63.7550(b)]~~

~~8.5.2. The permittee must report each instance when work practice requirements of Table 3 of 40 C.F.R 63 Subpart DDDDD are not met. These instances are deviations and must be reported according to the requirements in 40 C.F.R §63.7550 (Condition 8.5.3.).~~
~~[45CSR34; 40 C.F.R. §63.7540(b)]~~

~~8.5.3. **Compliance Report.** You must submit a compliance report containing the information in paragraphs a. and b. of this condition, and in accordance with paragraphs c. and d. of this condition.~~

~~a. The information in §63.7550(c)(5)(i) through (iii), (xiv) and (xvii), which is:~~

~~(i) Company and Facility name and address.~~

~~(ii) Process unit information, emissions limitations, and operating parameter limitations.~~

~~(iii) Date of report and beginning and ending dates of the reporting period.~~

~~(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to 40 C.F.R. §63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.~~

~~(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.~~

~~b. If there are no deviations from the requirements for work practice standards in Table 3 to 40 C.F.R. 63 Subpart DDDDD that apply to you (conditions 8.1.2. and 8.1.3.), a statement that there were no deviations from the work practice standards during the reporting period.~~

~~c. You must submit the report every 5 years according to the requirements in 40 C.F.R. §63.7550(b), which are:~~

~~(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 C.F.R. §63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 5 years after the compliance date that is specified for your source in 40 C.F.R. §63.7495 (condition 8.1.1.).~~

~~(2) The first 5-year compliance report must be postmarked or submitted no later than January 31.~~

~~(3) Each subsequent 5-year compliance report must cover the 5-year periods from January 1 to December 31.~~

~~(4) Each subsequent 5-year compliance report must be postmarked or submitted no later than January 31.~~

~~d. You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.~~

~~[45CSR34; 40 C.F.R. §§63.7550(a), (b), and (c)(1); 40 C.F.R. §§63.7550(c)(5)(i) through (iii), (xiv), and (xvii); 40 C.F.R. §63.7550(h)(3)]~~

~~8.6 Compliance Plan~~

~~8.6.1. Reserved.~~

Appendix

Attachment #1

Was the plant in compliance with the Casting Matrix as defined in R13-1145?

Month_____ **Year _____**

Date	Compliance Check	
1	Yes	No
2	Yes	No
3	Yes	No
4	Yes	No
5	Yes	No
6	Yes	No
7	Yes	No
8	Yes	No
9	Yes	No
10	Yes	No
11	Yes	No
12	Yes	No
13	Yes	No
14	Yes	No
15	Yes	No
16	Yes	No
17	Yes	No
18	Yes	No
19	Yes	No
20	Yes	No
21	Yes	No
22	Yes	No
23	Yes	No
24	Yes	No
25	Yes	No
26	Yes	No
27	Yes	No
28	Yes	No
29	Yes	No
30	Yes	No
31	Yes	No

Attachment #1 (Continued)

Was the plant in compliance with the Casting Matrix as defined in R13-1145?

Year _____

Month	Compliance Check	
Jan	Yes	No
Feb	Yes	No
Mar	Yes	No
Apr	Yes	No
May	Yes	No
Jun	Yes	No
Jul	Yes	No
Aug	Yes	No
Sep	Yes	No
Oct	Yes	No
Nov	Yes	No
Dec	Yes	No

Attachment #2

Monthly Production Log
Source I.D. 152Z-42-S / 152Z-1-S / 152Z-2-S (circle one)
Description: #6, #1, and #2 Evaporators

Evaporator I.D. _____

Month _____

Date	Product Type*	A/C batch size*	Controlled PM10 to atm.
mm/dd/yy	Common DuPont Name	lb/hr	lb PM10
		Monthly Totals	lbs/mo.

Emissions presented on this document are calculated from measured production rates applied to engineering estimates. Individual emissions cannot be separated from other sources at the emission point.

* Upon completion of this log DuPont reserves the right to redact the product type and batch size due to the claim of confidentiality presented in permit application R13-1145.

Attachment #2 (continued)

Annual Emission Log
Source I.D. 152Z-42-S / 152Z-1-S / 152Z-2-S (circle one)
Description: #6, #1, and #2 Evaporators

Year _____
Evaporator I.D. _____

Month	Total Monthly Emissions (lbs PM)
Totals for year:	Lb/yr
	Ton/yr

Emissions presented on this document are calculated from measured production rates applied to engineering estimates. Individual emissions cannot be separated from other sources at the emission point.

Attachment #2 (continued)

Total Summation of Evaporators Annual Emission Log
Source I.D. 152Z-42-S / 152Z-1-S / 152Z-2-S
Description: #6, #1, and #2 Evaporators

Year _____

Evaporator I.D.	Total Annual Emissions (tons PM10)
152Z-42-S	
152Z-1-S	
152Z-2-S	
Totals for year:	Lb/yr
	Ton/yr
Permit Application Estimates #1 Evap (152Z-1-S)	0.42 tons of PM10/yr
Permit Application Estimates #2 Evap (152Z-2-S)	0.38 tons of PM10/yr
Permit Application Estimates #6 Evap (152Z-42-S)	2.1 tons of PM10/yr
Combined Evaporator Annual Permit Limit	2.90 tons of PM10/yr

Emissions presented on this document are calculated from measured production rates applied to engineering estimates. Individual emissions cannot be separated from other sources at the emission point.

Attachment #3

Monthly Casting Log: Emission point 152Z-45-E
Affected Source I.D.s: 152Z-45S (Polymer Dies)
Description: Casting dies for autoclaves

Autoclave # _____ Month _____

Date	Batch Size*	Product Cast*	Controlled PM10
mm/dd/yy	lb/hr	Common DuPont Name	Emissions to Atm. (lbs)
Totals for Month		Lbs PM10 Tons PM10	

Emissions presented on this document are calculated from measured production rates applied to engineering estimates.

* Upon completion of this log DuPont reserves the right to redact the batch size and product cast due to the claim of confidentiality presented in permit application R13-1145.

Attachment #3 (continued)

Annual Casting Emissions Log: Emission Pont 152Z-45-E
Source I.D.s: 152Z-45S (Polymer Dies)
Description: Casting die for autoclaves

Autoclave # _____

Year _____

Month	Emissions to Atm.
	tons
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
Totals	
Permit limit for combination of permitted casting dies is 7.5 tons PM10 / calendar year	

Emissions presented on this document are calculated from measured production rates applied to engineering estimates.

Attachment #4

Monthly Autoclave Production Log
Affected Source I.D.s: 152Z-AC(1-6)
Description: Nylon reaction conducted in autoclave reactors

Autoclave I.D. # _____

Month _____

Date	Product*	Batch Size*	PM10 Emiss. to Atmosphere
mm/dd/yy	Common DuPont Name	lb/hr	Pounds PM10
Permit R13-1145 prohibits production of R13-4 Type C on claves #1, 2, and 6. As well as prohibits production of any Type C, 3C or 7C products on claves #3, 4, and 5. These claves are permitted to run R13-6 or comparable.			
Total Monthly Emissions to Atm. _____lbs			
_____tons			

Emissions presented on this document are calculated from measured production rates applied to engineering estimates. Individual emissions cannot be separated from other sources at the emission point.

* Upon completion of this log DuPont reserves the right to redact the batch size and product type due to the claim of confidentiality presented in permit application R13-1145.

Attachment #4 (continued)

Annual Autoclave Emissions Log
Affected Source I.D.s: 152Z-AC(1-6)
Description: Nylon production via autoclave reactors

Year: _____ PM10 Emissions

Month	A/C #1	A/C #2	A/C #3	A/C #4	A/C #5	A/C #6
	tons/mo	tons/mo	tons/mo	tons/mo	tons/mo	tons/mo
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Totals						

Sum of A/Cs 1-6 _____ lbs PM10/yr _____ tons PM10/yr

Permit Limit = 4620 lbs PM10/yr 2.31 tons PM10/yr

Emissions presented on this document are calculated from measured production rates applied to engineering estimates. Individual emissions cannot be separated from other sources at the emission point.

Attachment #5

Monthly Operating Log for Scrubber #1, #2, #6 (Circle one)
Affected Source I.D.s (152Z-1C, 152Z-2C, or 152Z-42C)
Permit # R13-1145

Month:____ / Day: _____ / Year:_____

Hour	Liq. Flow Rate* (gpm)	Liquid Input* Temp (C)
Permit Limitations:	**152Z-1C & 2C shall not fall below 170 gpm 152Z-42C shall not fall below 145 gpm**	**152Z-1C,2C,42C shall not rise above 55 C**

***hourly average**

Attachment #6

Monthly Control Equipment Operation Log
Affected Equipment (152Z-45- C)
Description: Demister controlling emission from casting dies

Month _____

DAY	Delta P across demister (inches w.c)	Corrective Actions Taken and/or Why No Corrective Action Was Taken If Delta P < 2.5 w.c.		DAY	Delta P across demister (inches w.c)	Corrective Actions Taken and/or Why No Corrective Action Was Taken If Delta P < 2.5 w.c.
1				16		
2				17		
3				18		
4				19		
5				20		
6				21		
7				22		
8				23		
9				24		
10				25		
11				26		
12				27		
13				28		
14				29		
15				30		
				31		

Note: The pressure differential should be recorded on a daily basis.

Minimum pressure differential is 2.5 inches water column.

Attachment #7

Annual Product Transfer and Emissions Log
Source I.D. 152Z-47-S
Description - D Blender Loading Conveying System

Month/Year	Pounds(lbs) Transferred*	PM Emissions to Atm. (lbs)
Totals	Lb/yr	Lbs/yr PM
	Ton/yr	Ton/yr PM
Permit R13-1145 limit		4480 Lbs/yr PM
		2.24 Ton/yr PM

Emissions presented on this document are calculated from measured production rates applied to engineering estimates.

* Upon completion of this log DuPont reserves the right to redact the value of pounds transferred due to the claim of confidentiality presented in permit application R13-1145.

Attachment #8

Annual Log of Fines Collected from 152Z-46-C
Source I.D. 152Z-46-C

Description: Cyclone controlling emissions from autoclave dry air system

Month/Year	Pounds of Nylon Fines Collected
Annual Totals	_____ Lbs/yr _____ Ton/yr
Permit Limit	8,560 lbs/yr 4.28 ton/yr Nylon Fines

Note: This surrogate limit is based on the annual limit for emission point 152Z-46-E, which is stated as 1.07 (tons/yr) PM and found in Specific Requirement #1 of R13-1145. The limit also takes into account the cyclone's stated control efficiency of 80% for PM.

Attachment #9

Alternative Emissions Calculations for Scrubbers 152Z-1C, 152Z-2C, and 152Z-42C

During normal operating periods, the emissions from the scrubbers will comply with the permit limits provided the scrubber monitoring parameters are within the permit limits for water flow rate and water temperature. The monitoring limits and permit emission limits were set for maximum load conditions where the evaporator and two of three autoclaves are venting at peak rate in any 60-minute period.

Because the operation of the evaporators and autoclaves must be scheduled in order to use common utilities and product handling equipment, and because each source actively vents for only a part of its batch cycle period, the typical operating scenario is that two sources, the evaporator and one autoclave, are venting at the same time. There are only brief periods when the evaporator and two autoclaves are venting.
If the unit is not venting three sources to the scrubber, then the emission limit might not be exceeded even if the scrubber water flow becomes limited or the water temperature is high. The calculation described here will provide an emission estimate based on the number of units venting and the duration of the venting, water flow, and water temperature. It is not common for all three sources to be venting at max rates in the same hour, and process operators are often able to stop or suspend the initiation of a batch, but it is not possible to immediately cease emissions until temperatures are reduced and it is not advisable to suspend a batch that has been started beyond a certain point.

During periods when the evaporator and the autoclaves associated with Scrubbers 1 [152Z-1C], 2 [152Z-2C], and 6 [152Z-42C] are not venting at peak rate in any 60-minute period, the emissions calculations will be determined as follows in order to determine if the event would be cited as a deviation for the monitoring or emission limit requirements:

1. Construct a timeline for the event beginning at the actual time when the monitored parameter went out of limits and ending when the parameter was restored above the limit or when all sources have ceased venting.
2. Select the worst case 60-minute period of the event based on when the greatest number of sources were venting. This should be at the beginning of the event because no new batches will be started.
3. From vent valve position records, and looking at the worst-case hour, determine the number of minutes during which the sources were actually venting, grouped into periods for “evaporator plus 2 autoclaves”, “evaporator plus one autoclave”, and “evaporator only”. Also determine the number of minutes in that hour when no sources were venting.
4. For each of the identified periods, enter the number of minutes into the time duration column of each table that describes the number of sources that were venting.
5. In each table pick a water temperature based on the average of actual readings at the time of that situation. The normal temperature is 40°C. Use the column for 55°C if the actual average water temperature is above 45°C. Use the column for 25°C water if the actual average water temperature is 30°C or below.
6. For each situation of number of sources venting, refer to the table for that number of sources, enter the number of minutes for the duration of that condition, find the row with the actual water flow rate observed during that period and select the closest temperature column to identify the number of pounds of particulate emitted in that period.
7. Sum up the emission numbers for each period of the hour. If the calculated emission rate in pounds per 60-minute period exceeds the permit limit for that scrubber, then the limit was exceeded, which is a permit deviation but the event is not also a deviation for the monitoring requirement.

   The emission calculation is based on the heat and material balance for scrubber 2 which has the most stringent requirements for flow and temperature of the water. The calculations can be applied to the other scrubbers but will produce conservatively high estimates. The calculation curves have been reduced to a polynomial expression to facilitate the evaluation of emissions as a function of different process conditions.

   Emissions (lb/60 minutes) = $Ax^3 + Bx^2 + Cx + D$, where x = water flow in gpm

Factors:

Sources	Water Temp ºC	A	B	C	D
Evap & 2 A/C	25	0	1.89E-04	-7.09E-02	6.65
Evap & 2 A/C	40	0	1.65E-04	-7.48E-02	8.5
Evap & 2 A/C	55	0	5.48E-05	-4.09E-02	7.08
Evap & 1 A/C	25	0	1.78E-04	-6.48E-02	5.92
Evap & 1 A/C	40	0	2.08E-05	-2.37E-02	3.98
Evap & 1 A/C	55	7.92E-07	-3.72E-04	3.96E-02	1.06
Evap only	25	2.10E-06	-5.35E-04	2.31E-02	1.53
Evap only	40	0	-3.11E-05	-9.36E-03	2.42
Evap only	55	3.59E-07	-1.70E-04	1.22E-02	1.89

The emission numbers resulting from this calculation represent the emissions in a 60-minute period when the sources are venting at maximum rate. The actual periods of maximum emission rate are typically a few minutes, and depend on the autoclave and the product type.