

STATEMENT OF LEGAL AND FACTUAL BASIS

DuPont – Spruance Plant
5401 Jefferson Davis Highway
Richmond, Virginia
Permit No. PRO50397

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, DuPont has applied for a Title V Operating Permit for its Richmond, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: _____ Date:
Stanley Faggert
(804) 527-5078

Air Permit Manager: _____ Date:
James E. Kyle, P.E.

Deputy Regional Director: _____ Date:
Kyle I. Winter, P.E.

FACILITY INFORMATION

Permittee

DuPont – Spruance Plant
5401 Jefferson Davis Highway
Richmond, Virginia 23234

Responsible Official

Joseph N. Internicola
Plant Manager

Facility

DuPont – Spruance Plant
5401 Jefferson Davis Highway
Richmond, Virginia 23234

Contact Person

Joe G. Loschiavo
Environmental Associate
804-383-3911

County-Plant No.: 041-0001

SOURCE DESCRIPTION

NAICS Code 325222 – Noncellulosic Organic Fiber Manufacturing

The facility manufactures synthetic resins, fibers and sheet products, polyamide resins and spunbonded/non-woven fabric through a variety of processes.

The facility is a Title V major source of volatile organic compounds (VOC) and hazardous air pollutants (HAPs). This source is located in an attainment area for all pollutants, and is a NSR major source. Various sections of the facility are currently permitted under multiple permits: a February 25, 2011 Article 8 permit amendment for the NOMEX® process area, a November 19, 2010 Article 6 permit amendment for the Kevlar® process area, a December 28, 2011 Article 6 permit for the Tyvek® process area and a May 14, 2010 Article 6 permit for the Zytel® process area. The facility was issued an initial TV permit on July 14, 2004. Therefore, pursuant to 9 VAC 5-80-80 C3, the facility submitted a TV renewal application on December 2, 2008. The renewal application was deemed administratively complete on January 30, 2009.

COMPLIANCE STATUS

The facility is inspected once a year. The facility reports that they are currently in compliance with all applicable requirements. This is confirmed by the latest compliance evaluation listed in CEDS, dated March 22, 2012, where the facility was judged to be in compliance at the time of the evaluation.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NOMEX® Process Area							
NOE01	NOS02	Polymerization and Deaeration Process Vessels	39.469 NOMEX® Polymerization Units/hr	DuPont designed solvent recovery system including scrubber, extraction and distillation. This system is in operation over the entire NOMEX® process area. (Solvent Recovery)	NOC01 ^a	VOC/HAP	February 25, 2011
NOE02	NOS01	Dissolver	2200 Batches/yr	Industrial Sheet & Mechanical Inc. high velocity spray scrubber (NOMEX® DMAc Scrubber)	NOC03	VOC	February 25, 2011
NOE3-10	NOS01	Eight (8) Misc. Process Tanks	< 4,217 gal each	N/A	N/A	N/A	February 25, 2011
NOE11	NOS05	RP larger room	N/A	N/A	N/A	N/A	February 25, 2011
NOE12-13	NOS06	Two (2) Basement filter presses	2000 lbs/hr polymer each	N/A	N/A	N/A	February 25, 2011
NOE14	NOS07	Waste Dryer	1250 lbs/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE15-18	NOS01	Four (4) Spinning Machines	2.93 tons/hr fiber	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE19-23	NOS01	Five (5) Wash/draw Line	1.35 tons/hr fiber each	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE24	NOS08	Crimpers	6.75 tons/hr fiber	N/A	N/A	N/A	February 25, 2011

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NOE25	N/A	Finish Application	6.75 tons/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE26	N/A	Process Tanks	6.75 tons/hr fiber	N/A	N/A	N/A	February 25, 2011
NOE27-34	NOS01	Eight (8) Fibrillation Machines	2,350 lbs/hr polymer total	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE107-108	NOS01	Two (2) Fibrillation Machines	294 lbs/hr each	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE35	NOS01	3DP ("Belt") Press	3,000 lbs/hr polymer total	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE36-39	NOS01	Four (4) Drum Filters	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE41	NOS11	Paper Machine	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE42-44	N/A	Three (3) Calendering Machines	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE45	NOS01	Slurry process tanks	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE46	NOS08	Fiber Staple Dryer	1.5 tons/hr paper	N/A	N/A	N/A	February 25, 2011
NOE47	NOS09	Fiber Second Floor Room	N/A	N/A	N/A	N/A	February 25, 2011
NOE48	NOS10	Fiber Parts Cleaning Operation	N/A	N/A	N/A	N/A	February 25, 2011
NOE49A	NOS12	Extraction Column	1172.49 DMAc Recovery Units/hr ^b	DuPont Chloroform Constant Level Scrubber/Quench tank (NOMEX® Chloroform Scrubber)	NOC02	VOC/HAP	February 25, 2011
NOE49D	NOS12	Extraction Column	1172.49 DMAc Recovery Units/hr ^b	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE49B	NOS12	Distillation Column	1172.49 DMAc Recovery Units/hr ^b	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE49C	NOS12	Distillation Column	1172.49 DMAc Recovery Units/hr ^b	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOE50A	NOS12	Stripper Column	1172.49 DMAc Recovery Units/hr ^b	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011

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NOE51	NOS12	Quench process tank	1172.49 DMAc Recovery Units/hr ^b	N/A	N/A	N/A	February 25, 2011
NOE52	NOS12	Misc. process vessels	1172.49 DMAc Recovery Units/hr ^b	N/A	N/A	N/A	February 25, 2011
NOE101	NOS01	Spin Position SM5-1	100 lbs/hr virgin polymer	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE102	NOS01	Spin Position SM5-2	100 lbs/hr virgin polymer	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE103	NOS01	SM5 Wash/Draw Line	200 lbs/hr virgin polymer	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE104	NOS02	SM5 Dryer/Crystallizer	200 lbs/hr virgin polymer	N/A	N/A	N/A	February 25, 2011
NOE105	NOS02	Finish Application	275 lbs/hr virgin polymer	N/A	N/A	N/A	February 25, 2011
NOE106	NOS02	SM5 Packaging	200 lbs/hr virgin polymer	N/A	N/A	N/A	February 25, 2011
NOE110	NOS01	SM1 Nitrogen Aspiration System Purge	2.93 tons/hr fiber	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOE111	NOS01	SM2-4 Nitrogen Aspiration System Purge	2.93 tons/hr fiber	NOMEX® DMAc Scrubber	NOC03	VOC	February 25, 2011
NOT01	NOS13	Polymer/solvent OST tank	40,000 gal	N/A	N/A	N/A	February 25, 2011
NOT02	NOS14	Polymer/solvent PMV tank	23,960 gal	N/A	N/A	N/A	February 25, 2011
NOT03-04	NOS03	Two (2) ICL storage tanks	48,000 gal each	N/A	N/A	N/A	February 25, 2011
NOT05-06	NOS04	Two (2) MPD storage tanks	27,100 gal east 18,200 gal west	N/A	N/A	N/A	February 25, 2011
NOT07-08	NOS19 -20	Two (2) DMAc combined feed storage tanks	200,000 gal each	N/A	N/A	N/A	February 25, 2011
NOT09-12	NOS15 -18	Four (4) DMAc storage tanks	3 x 38,000 gal 1 x 68,000 gal	N/A	N/A	N/A	February 25, 2011
NOT13	NOS12	Chloroform storage tank	68,000 gal	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT14	N/A	Spin tank	27,471 gal	N/A	N/A	N/A	February 25, 2011

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NOT15	N/A	Deaerator supply tank	12,325 gal	N/A	N/A	N/A	February 25, 2011
NOT16	N/A	Misc. storage tanks	< 10,568 gal each	N/A	N/A	N/A	February 25, 2011
NOT20	NOS12	Recycle tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT21	NOS12	Start-up tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT22	NOS12	Crud Collection tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT23	NOS12	Pollution Abatement tank		NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT24	N/A	Recovered Solvent No. 3 Tank	37,800 gallons	N/A	N/A	N/A	February 25, 2011
NOT25	N/A	Spin Supply Tank	19,500 gallons	N/A	N/A	N/A	February 25, 2011
NOT26-27	N/A	DMAc Slurry Tanks	400 gallons each	N/A	N/A	N/A	February 25, 2011
NOT28	NOS12	Chloroform Storage Tank	68,400 gallons	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT29	NOS12	Vaporizer Feed Tank	10,000 gallons	NOMEX® Chloroform Scrubber	NOC02	VOC/HAP	February 25, 2011
NOT30	N/A	Chloroform Crud Tank	500 gallons	N/A	N/A	N/A	February 25, 2011
NOT31	N/A	Automatic Pressure Filter Feed Tank	16,000 gallons	N/A	N/A	N/A	February 25, 2011
NOT32	N/A	Automatic Pressure Filter Accepts Tank	16,000 gallons	N/A	N/A	N/A	February 25, 2011
NOT33	N/A	Secondary Filter Feed Tank	13,300 gallons	N/A	N/A	N/A	February 25, 2011
NOT34	N/A	Filter Aid Feed Tank	1,000 gallons	N/A	N/A	N/A	February 25, 2011
Note: a: Not a control device as the solvent recovery is inherent process equipment.							
Note: b: This is the capacity of the system. This applies to NOE49A through NOE52.							
Kevlar® Process Area							
SEE01	SES04	Polymerization/Mixer	25.5 Kevlar® Polymerization Units/hr	DuPont designed solvent recovery system including scrubber, extraction and distillation; covers the entire Kevlar® process area.	SCD06	VOC/HAP	November 19, 2010

SEE02	SES04	Milling	Same as SEE01	N/A	N/A	N/A	November 19, 2010
SEE03	SES04	Polymer Washing	Same as SEE01	N/A	N/A	N/A	November 19, 2010
SEE04	SES04	Polymer Dryer	Same as SEE01	N/A	N/A	N/A	November 19, 2010
SEE11(A)	SES05, 12, 13, 15, 21-23	Plant 2 Mixers	12.64 Kevlar® Solution Prep Units/hr	N/A	N/A	N/A	November 19, 2010
SEE11(B)	SES05, 12, 13, 15, 21-23	Plant 3 Mixers	Same as SEE11A	N/A	N/A	N/A	November 19, 2010
SEE12(A)	SES05, 12, 13, 15, 21-23	Plant 2 Solution/Blending	Same as SEE11A	N/A	N/A	N/A	November 19, 2010
SEE12(B)	SES05, 12, 13, 15, 21-23	Plant 3 Solution/Blending	Same as SEE11A	N/A	N/A	N/A	November 19, 2010
SEE21	SES08-11, 14, 16-20	Spinning Machine 6	56.23 Kevlar® Spinning Units/hr	N/A	N/A	N/A	November 19, 2010
SEE22	SES08-11, 14, 16-20	Spinning Machine 7	Same as SEE21	N/A	N/A	N/A	November 19, 2010
SEE23	SES08-11, 14, 16-20	Spinning Machine 31	Same as SEE21	N/A	N/A	N/A	November 19, 2010
SEE24	SES08-11, 14, 16-20	Spinning Machine 32	Same as SEE21	N/A	N/A	N/A	November 19, 2010

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SEE25	SES08-11, 14, 16-20	Spinning Machine RD	Same as SEE21	N/A	N/A	N/A	November 19, 2010
SEE26	SES08-11, 14, 16-20	Spinning Machine LD1	Same as SEE21	N/A	N/A	N/A	November 19, 2010
SEE31	SES01	Extraction Column	270 Kevlar® Solvent Recovery Units/hr	DuPont designed scrubber	SCD01	VOC/HAP	November 19, 2010
SEE32	SES01	Stripper Column	Same as SEE31	DuPont designed scrubber	SCD01	VOC/HAP	November 19, 2010
SEE33	SES01	Distillation Column	Same as SEE31	N/A	N/A	N/A	November 19, 2010
SEE34	SES01	Chloroform Column	Same as SEE31	DuPont designed scrubber	SCD01	VOC/HAP	November 19, 2010
SEE35	SES27	Sulfuric Acid tank	Same as SEE31	N/A	N/A	N/A	November 19, 2010
SET01	SES01	Chloroform storage tank	193,536 Kevlar® Storage Units (KSU)	DuPont designed scrubber or dedicated storage tank scrubber	SCD01 or SCD07	VOC/HAP	November 19, 2010
SET02	SES28	PPD storage tank	72,964 KSU	DuPont designed scrubber	SCD04	VOC/HAP	November 19, 2010
SET03	SES30	TCL – North storage tank	156,620 KSU	DuPont designed scrubber	SCD02	VOC	November 19, 2010
SET04	SES31	TCL – South storage tank	85,950 KSU	DuPont designed scrubber	SCD03	VOC	November 19, 2010
SET05	N/A	NMP storage tank	72,962 KSU	N/A	N/A	N/A	November 19, 2010
SET06	N/A	Premix Feed tank	1031 KSU	N/A	N/A	N/A	November 19, 2010
SET07	N/A	Premix Reclaim tank	17,190 KSU	N/A	N/A	N/A	November 19, 2010
SET08	N/A	Filter Feed tank	10,505 KSU	N/A	N/A	N/A	November 19, 2010

SET09	N/A	Mother Liquor Receiver tank	2,674 KSU	N/A	N/A	N/A	November 19, 2010
SET10	N/A	Mother Liquor tank	4,966 KSU	N/A	N/A	N/A	November 19, 2010
SET11	N/A	Wash Receiver No. 1 tank	1,910 KSU	N/A	N/A	N/A	November 19, 2010
SET12	N/A	Weak Feed tank	522,767 KSU	N/A	N/A	N/A	November 19, 2010
SET13	N/A	Intercept tank	7,124 KSU	N/A	N/A	N/A	November 19, 2010
SET14	N/A	Solvent Premix tank	33,014 KSU	N/A	N/A	N/A	November 19, 2010
SET15	N/A	Premix Mix tank	27,888 KSU	N/A	N/A	N/A	November 19, 2010
SET16	N/A	Premix storage tank	245,435 KSU	N/A	N/A	N/A	November 19, 2010
SET17	SES29	PPD storage tank	124,150 KSU	DuPont designed scrubber	SCD05	VOC/HAP	November 19, 2010
SET18	N/A	West Wash Receiver No. 1 Tank	2,894 KSU	N/A	N/A	N/A	November 19, 2010
SET19	N/A	Wet Mother Liquor Receiver Tank	4,259 KSU	N/A	N/A	N/A	November 19, 2010
SET20	N/A	Mother Liquor Neutralization Tank	9,710 KSU	N/A	N/A	N/A	November 19, 2010
SET21	N/A	Dhy Feed Tank (also backup to SET 12)	322,790 KSU	N/A	N/A	N/A	November 19, 2010
SEE36	N/A	Cooling Tower Cell #1	2600 Kevlar® Cooling Units	N/A	N/A	N/A	November 19, 2010
SEE37	N/A	Cooling Tower Cell #2	2600 Kevlar® Cooling Units	N/A	N/A	N/A	November 19, 2010
SEE38	N/A	Cooling Tower Cell #3	2600 Kevlar® Cooling Units	N/A	N/A	N/A	November 19, 2010
SEE39	N/A	PPD Unloading Station #1	180,510 PPD Loading Units	N/A	N/A	N/A	November 19, 2010

SEE40	N/A	PPD Unloading Station #2	180,510 PPD Loading Units	N/A	N/A	N/A	November 19, 2010
SEE41	N/A	S.M. Yarn Processor No. 5	3.75 Kevlar® Spinning Units/hr	N/A	N/A	N/A	July 8, 1987
Tyvek® Process Area							
TYE01	TYS04	Line 1 T-10 Coater/Finishing Line	2 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE02	TYS04	Line 2 T-10 Coater/Finishing Line	2 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE03	TYS04	T-12 Coater/Finishing Line	1.6 tons/hr Tyvek®	N/A	N/A	N/A	N/A
TYE04	TYS03	L1 – Mix tank	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE05-08	TYS03	L1 – Mixers (4)	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE09	TYS03	L1 – Spin Cell	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE10	TYS03	L1 – Blow Down Cell	1 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE11	TYS03	L2 – Mix tank	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE12-13	TYS03	L2 – Mixers (2)	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE14	TYS03	L2 – Spin Cell	2.8 tons/hr Tyvek®	L1-2 Carbon Adsorption System	TYC07	Spin Agent	N/A
TYE16	TYS01	L4 – Spin Solution Mixer	3.5 tons/hr Tyvek®	L4 Condenser L4 Absorption Sys. L4 Thermal Oxidizer (controls TYE16-20)	TYC01 TYC02 TYC03	VOC	December 28, 2011
TYE17	TYS01	L4 – Spin Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE18	TYS01	L4 – Nitrogen Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011

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TYE19	TYS01	L4 – Absorbant Carry-Over	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE20	TYS01	L4 – Air Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE16	Same as TYE16	VOC	December 28, 2011
TYE21	TYS02	L7 – Spin Solution Mixer	3.5 tons/hr Tyvek®	L7 Condenser L7 Absorption Sys. L7 Thermal Oxidizer (controls TYE21-25)	TYC04 TYC05 TYC06	VOC	December 28, 2011
TYE22	TYS02	L7 – Spin Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYE23	TYS02	L7 – Nitrogen Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYE24	TYS02	L7 – Absorbant Carry-Over	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYE25	TYS02	L7 – Air Stripper Cell	3.5 tons/hr Tyvek®	Same as TYE21	Same as TYE21	VOC	December 28, 2011
TYT01-02	TYS05	L4 Spin Agent Storage tanks (2)	15,000 gal each	N/A	N/A	N/A	December 28, 2011
TYT03	TYS06	L7 Spin Agent Storage tank	6,250 gal	N/A	N/A	N/A	December 28, 2011
TYT04-08	TYS03	L1-2 Spin Agent Storage tanks (5)	1 – 25,000 gal 4 – 10,800 gal	N/A	N/A	N/A	N/A
TYT09	TYS09	Misc. Storage tanks	<19,815 gal	N/A	N/A	N/A	N/A
Zytel® Process Area							
ZYE01A	ZYS01 -A	Commercial Lines 1-2 Salt Preparation including primary reactor and miscellaneous tanks	42.25 Zytel® Polymerization Units/hr	N/A	N/A	N/A	N/A
ZYE01B	ZYS01 -B	Commercial Line 3 (HTN®) Salt Preparation including primary reactor, miscellaneous tanks and TA storage silo	20.3 Zytel® Polymerization Units/hr	N/A	N/A	N/A	May 14, 2010

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ZYE02	ZYS02-04	Commercial Line 1 including: additive extruder, extruder feed hopper, melt tank, separators, dies, cooler/dryer, mixer and distearate dump station	7.0 Zytel® Polymerization Units/hr	Fabric filter	ZYC01	Particulate	N/A
ZYE03	ZYS05-06	Commercial Line 2 including: separators, dies and cooler/screener	7.0 Zytel® Polymerization Units/hr	Fabric filter	ZYC01	Particulate	N/A
ZYE04	ZYS08-09	Commercial Line 3 (HTN®) including: finishers, dies and cooler/screener	1.25 Zytel® Polymerization Units/hr	Fabric filter Cyclone Separator	ZYC01 ZYC02	Particulate Particulate	May 14, 2010
ZYE06	ZYS15-18	Product Storage Silos (5) with a total of four vents	84.5 Zytel® Product Units	Fabric filter	ZYC01	Particulate	May 14, 2010
ZYE07	ZYS23-26	Packaging: truck, railcar, sealand container, box and bag loading	84.5 Zytel® Product Units	Fabric filter	ZYC01	Particulate	May 14, 2010
ZYE08-10	ZYS27	Dowtherm® Vaporizers (3)	14.5 MMBtu/hr heat input each	N/A	N/A	N/A	N/A
ZYE11	ZYS27	Dowtherm® Vaporizer VAP-3R	20 MMBtu/hr	N/A	N/A	N/A	N/A
ZYE13	ZYS28	TPA Solids Unloading	25,000 Zytel® TPA Solids Unloading Units	N/A	N/A	N/A	May 14, 2010
ZYE14	ZYS29	Line 3 Reflux Level Pot	625 Zytel® MPMD Storage Units	Zytel® Environmental Abatement Facility (EAF) Scrubber	ZYC03	VOC	May 14, 2010
ZYT01	N/A	Diamine Storage tank	2,500,000 Zytel® Diamine Storage Units	N/A	N/A	N/A	May 14, 2010
ZYT02-07	N/A	Dowtherm Storage tanks (6)	2 – 1,486 gal 2 – 983 gal 1 – 4,000 gal 1 – 3,600 gal	N/A	N/A	N/A	N/A

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ZYT08	N/A	MPMD Storage Tank	125,000 Zytel® MPMD Storage Units	N/A	N/A	N/A	May 14, 2010
ZYT09-10	N/A	Salt Make-Up & Storage (2)	2 @ 450,000 Zytel® Salt Make-Up & Storage Units	N/A	N/A	N/A	May 14, 2010
ZYT11	N/A	Diamine/MPMD Blend Tank	12,500 Zytel® MPMD Storage Units	N/A	N/A	N/A	N/A
ZYT12	N/A	3-MP Storage Tank	25,000 Zytel® MPMD Storage Units	N/A	N/A	N/A	May 14, 2010
ZYT13	N/A	Amine Storage Tank	21,250 Zytel® MPMD Storage Units	N/A	N/A	N/A	May 14, 2010
Miscellaneous Operations							
MIE01	N/A	Groundwater Remediation System	7,500 gal/hr	N/A	N/A	N/A	N/A
MIE02	N/A	Wastewater Treatment Plant	600,000 gal/hr	N/A	N/A	N/A	N/A
MIE03-04	MIS01- 02	Diesel-Fired Emergency Generators (2)	1095 hp each	N/A	N/A	N/A	N/A
MIE05	N/A	Miscellaneous Solvent (VOC based) Metal Cleaning Operations (cold cleaning)	Various	N/A	N/A	N/A	N/A
MIE06-07	MIS03- 04	Two Diesel-Fired Fire Pumps (water)	370 hp each	N/A	N/A	N/A	N/A
MIE08	MIS05	One Diesel-Fired Fire Pump (water)	303 hp	N/A	N/A	N/A	N/A
MIE09-10	MIS06- 07	Two Diesel-Fired Fire Pumps (foam)	76 hp each	N/A	N/A	N/A	N/A

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MIE13	MIS10	Miscellaneous portable temporary rental diesel-fired engines	≤500 hp each	N/A	N/A	N/A	N/A
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*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

*DMAc = dimethylacetamide.

EMISSIONS INVENTORY

An emission update was received for the year 2011. The actual annual emissions from the facility were reported as 22.2 tons of PM₁₀, 129.5 tons of VOC (of which 2.8 tons were HAPs), 5.7 tons of nitrogen oxides (NO_x) and 3.3 tons of carbon monoxide (CO).

EMISSION UNIT APPLICABLE REQUIREMENTS – NOMEX® Process Area

The source has emission unit specific applicable requirements for the NOMEX® process area. The sources of applicable requirements for the NOMEX® process area are as follows: the 2/25/2011 NSR (New Source Review) permit, the 5/30/1996 RACT (Reasonably Available Control Technology) Agreement and 40 CFR 63 Subparts A and FFFF (MACT (Maximum Available Control Technology) standard for miscellaneous organic chemical manufacturing).

Limitations

2/25/2011 NSR permit and 5/30/1996 RACT Agreement

Conditions #3-5, 17 and 18 of the NSR permit and Condition #E.10 of the RACT Agreement contain criteria VOC control and work practice requirements for the NOMEX® process area and have been included as Conditions #1-3 of the proposed TV permit.

Condition #6 of the NSR permit and Condition #E.8 of the RACT Agreement specify Leak Detection and Repair (LDAR) requirements for the NOMEX® process area and have been included as Condition #4 of the proposed TV permit.

Condition #20 of the NSR permit and Condition #E.11 of the RACT Agreement specify a VOC emission standard (based on NSPS Subpart HHH) for the NOMEX® process area and have been included as Condition #5 of the proposed TV permit.

Conditions #8-11 of the NSR permit contain hourly and annual VOC emission limits for the NOMEX® process area have been included as Conditions #6-9 of the proposed TV permit.

Condition #19 of the NSR permit addresses the 40 CFR 63 Subpart FFFF and 40 CFR 60 Subpart Kb requirements applicable to the two of the NOMEX® process area storage tanks and has been included as Condition #10 of the proposed TV permit.

40 CFR 63 Subpart FFFF

Condition #18 of the proposed TV permit contains a reference to Section IX of the TV permit for the 40 CFR 63 Subpart FFFF MACT requirements of the NOMEX® process area. Section IX (Conditions #97-109 of the proposed TV permit) includes the emission standards, monitoring, recordkeeping and reporting requirements of the Subpart FFFF for the NOMEX® process area.

Monitoring/Testing/Recordkeeping/Reporting

2/25/2011 NSR permit and 5/30/1996 RACT Agreement

The monitoring, testing and recordkeeping requirements in Conditions #3, #5, #7, #12-14, #16, #21 and #24-25 of the 2/25/2011 NSR permit have been examined and determined to meet Part 70 requirements as is. Conditions #3 and #12 require continuous monitoring of the NOMEX® DMAc scrubber's scrubber liquid flow rate, scrubber liquid DMAc concentration and differential pressure. Conditions #5 and #12 require continuous monitoring of the NOMEX® Chloroform scrubber's scrubber liquid flow rate and scrubber liquid temperature as well as daily

sampling of the scrubber liquid chloroform content. Conditions #7 and #13 require monitoring of the nitrogen aspiration system purges' gas temperature and gas flow on a shift basis. Condition #14 requires monitoring of the spin cell pressure balances on a shift basis. Conditions #16, #21 and #24-25 require recordkeeping and reporting of emission calculations, monitoring data, LDAR data, project status and past performance test results. As described below, in this way, these collective monitoring requirements serve to provide a reasonable assurance of compliance with the air pollution control device, emission standard and emission limit requirements for the NOMEX® process area from the NSR permit and the RACT Agreement. These requirements have been included as Conditions #11-17 of the proposed TV permit.

Applicable Requirement (TV Condition #)	Associated Monitoring Conditions (TV Condition #)
1	11, 14, 16.c
2	15, 16.e
3	12, 14, 16.c
4-5	16.f, 16.a
6	13, 15, 16.d, 16.g
7-9	16.b

40 CFR 63 Subpart FFFF

By regulatory definition, Part 63 MACT standards are presumed to include sufficient monitoring, recordkeeping and reporting requirements to satisfy both periodic monitoring and any CAM (Compliance Assurance Monitoring) requirements.

CAM

The NOMEX® process area includes two pollutant specific emission units (PSEU) potentially applicable to CAM. The first PSEU is VOC (as DMAc) emissions from all sections of the NOMEX® process area. The second PSEU is VOC (as chloroform) emissions from the solvent recovery section of the NOMEX® process area. Both of these PSEUs have pre-controlled VOC emissions above 100 tons/yr and are subject to CAM applicable emission limits. Both PSEUs also incorporate equipment designed to reduce the amount of VOC emitted into the atmosphere. However, DuPont's TV application adequately demonstrates that majority of this equipment for both PSEUs should properly be considered inherent process equipment as defined in the CAM regulations (40 CFR 64). There is one potential exception to this inherent process designation for both PSEUs: the solvent recovery system for each PSEU is equipped with a final absorber (scrubber) that is subject to specific applicable requirements in the Title V permit. These scrubbers are designated as NOC02 (NOMEX® Chloroform Scrubber) for the VOC (as chloroform) PSEU and NOC03 (NOMEX® DMAc Scrubber) for the VOC (as DMAc) PSEU. However, NOC02 is subject to MACT requirements (40 CFR 63 Subpart FFFF) since it controls HAP emissions from a Group 1 storage tank. Since the Title V permit (as previously discussed) includes the monitoring, recordkeeping and reporting requirements (MRR) from Subpart FFFF, these requirements are also presumed to satisfy CAM. Although the permit includes monitoring requirements for NOC03 that are similar to those required by the Subpart FFFF for NOC02, these MRR requirements originate from the NSR program instead of a MACT standard. DuPont has therefore supplied additional documentation that NOC03 should properly be considered to be inherent process equipment for the purposes of CAM. In accordance with Attachment B of Appendix X of the TV permitting manual, DuPont has demonstrated that the annual value of the material recovered by NOC03 exceeds the annual operating cost of NOC03 by as much as \$800,000. Although this analysis assumed the maximum potential amount of material recovery, a supplementary DEQ analysis based on actual emission data (from a 2009 performance test of NOC03) confirmed that the annual value of material recovered by NOC03 exceeds the annual operating cost of NOC03 by an average of \$500,000. NOC03 can therefore also be considered inherent process equipment and not subject to CAM.

EMISSION UNIT APPLICABLE REQUIREMENTS – Kevlar® Process Area

The source has emission unit specific applicable requirements for the Kevlar® process area. The sources of applicable requirements for the Kevlar® process area are as follows: the 7/8/1987 and 11/19/2010 NSR permits, the 5/30/1996 RACT Agreement, the new and modified source visible emission standard from 9 VAC 5-50-80 and 40 CFR 63 Subparts A and FFFF (MACT standard for miscellaneous organic chemical manufacturing).

Limitations

11/19/2010 NSR permit and 5/30/1996 RACT Agreement

Conditions #3-5 of the NSR permit contain VOC control requirements for the Kevlar® process area and have been included as Conditions #19-21 of the proposed TV permit.

Condition #6 of the NSR permit and Condition #E.5 of the RACT Agreement specify LDAR requirements for the Kevlar® process area and have been included as Condition #22 of the proposed TV permit.

Conditions #7-9 of the NSR permit contain throughput limitations for the Kevlar® process area and have been included as Conditions #23-25 of the proposed TV permit.

Conditions #10-11 of the NSR permit and Condition #E.7 of the RACT Agreement specify a VOC emission standard (based on NSPS Subpart HHH) for the Kevlar® process area and have been included as Condition #27 of the proposed TV permit.

Conditions #12-18 of the NSR permit contain hourly and annual emission limits for the Kevlar® process area have been included as Conditions #28-34 of the proposed TV permit.

7/8/1987 NSR permit

Condition #4 of the NSR permit contains a throughput limit for the Kevlar® process area yarn processor and has been included as Condition #26 of the proposed TV permit.

Condition #5 of the NSR permit contains hourly and annual emission limits for the Kevlar® process area yarn processor and has been included as Condition #35 of the proposed TV permit.

40 CFR 63 Subpart FFFF

Condition #45 of the proposed TV permit contains a reference to Section IX of the TV permit for the 40 CFR 63 Subpart FFFF MACT requirements of the Kevlar® process area. Section IX (Conditions #97-109 of the proposed TV permit) includes the emission standards, monitoring, recordkeeping and reporting requirements of the Subpart FFFF for the Kevlar® process area.

New and modified source visible emission standard: 9 VAC 5-50-80

Due to past modifications that resulted in permit actions culminating with the 7/8/1987 and 11/19/2010 NSR permits, the Kevlar® process area is considered a new/modified source. However, since these permits do not contain any applicable opacity standard for the Kevlar® process area emission units capable of emitting visible emissions, the Kevlar® process area is subject to the 9 VAC 5-50-80 new/modified source visible emission standard by default. This visible emission standard has been included as Condition #36 of the proposed Title V permit.

Monitoring/Testing/Recordkeeping/Reporting

11/19/2010 NSR permit and 5/30/1996 RACT Agreement

With one exception, the monitoring, testing and recordkeeping requirements in Conditions #3 and #22-24 of the 11/19/2010 NSR permit have been examined and determined to meet Part 70 requirements as is. Conditions #3 requires continuous monitoring of the Kevlar® chloroform scrubber's scrubber liquid flow rate. Conditions #22 requires biennial VOC performance tests of the Kevlar® process area, and Condition #24 allows for compliance to be based on more frequent performance testing in lieu of emission factor data as an option. Conditions #23 requires recordkeeping of throughputs, emission calculations, monitoring data, LDAR data and past performance test results. As described below, in this way, these collective monitoring requirements serve to provide a reasonable assurance of compliance with the control, emission standard and emission limit requirements for the Kevlar® process area from the 11/19/2010 NSR permit and the RACT Agreement. These requirements have been included as Conditions #37, #41-42 and #44 of the proposed TV permit.

The aforementioned exception is that the 11/19/2010 NSR permit does not contain any periodic monitoring for the emission control requirements of Conditions #4 and #5 of the 11/19/2010 NSR permit. To provide a reasonable assurance of compliance with these requirements, Conditions #39 and #42.h were added to the proposed Title V permit. These conditions require annual integrity inspections for the subject control devices, repairs as necessary and associated recordkeeping.

Applicable Requirement (TV Condition #)	Associated Monitoring Conditions (TV Condition #)
19	37, 39, 42.h
20-21	15, 16.e
22	42.e
23-25	42.c
27	42.a
28	42.b
29	41, 42.c, 42.d, 42.i, 44
30	42.c, 42.f
31-33	42.c
34	42.c, 42.f

7/8/1987 NSR permit

The 7/8/1987 NSR permit does not contain any specific monitoring, recordkeeping or reporting requirements, so Condition #42.c was added to the Title V permit to provide a reasonable assurance of compliance with requirements of Conditions #4 and #5 of the 7/8/1987 NSR permit. This condition requires recordkeeping of the yarn processor annual throughput to demonstrate direct compliance with the throughput limit of Condition #4 and indirect compliance with Condition #5.

40 CFR 63 Subpart FFFF

By regulatory definition, Part 63 MACT standards are presumed to include sufficient monitoring, recordkeeping and reporting requirements to satisfy both periodic monitoring and any CAM requirements.

New and modified source visible emission standard: 9 VAC 5-50-80

To provide a reasonable assurance of compliance with this standard, Conditions #38, #42.g and #43 were added to the proposed TV permit. These conditions require monthly visible emission observations of the Kevlar® process area stacks, corrective action to any unit where any visible emissions are observed, and associated recordkeeping and reporting.

CAM

The Kevlar® process area includes two PSEUs potentially applicable to CAM. The first PSEU is VOC (as NMP) emissions from all sections of the Kevlar® process area. The second PSEU is VOC (as chloroform) emissions from the solvent recovery section of the Kevlar® process area. Both of these PSEUs have pre-controlled VOC emissions above 100 tons/yr and are subject to CAM applicable emission limits. Both PSEUs also incorporate equipment designed to reduce the amount of VOC emitted into the atmosphere. However, DuPont's TV application adequately demonstrates that majority of this equipment for both PSEUs should properly be considered inherent process equipment as defined in the CAM regulations (40 CFR 64). There is one potential exception to this inherent process designation for the VOC (as chloroform) PSEU: the solvent recovery system is equipped with a final absorber (scrubber) that is subject to specific applicable requirements in the Title V permit. This scrubber is designated as SCD01 (Kevlar® Chloroform Scrubber). However, SCD01 is subject to MACT requirements (40 CFR 63 Subpart FFFF) since it controls HAP emissions from a Group 1 storage tank. Since the Title V permit (as previously discussed) includes the monitoring, recordkeeping and reporting requirements (MRR) from Subpart FFFF, these requirements are also presumed to satisfy CAM. Therefore, no additional CAM evaluation is required for the Kevlar® process area.

EMISSION UNIT APPLICABLE REQUIREMENTS – Tyvek® Process Area

The source has emission unit specific applicable requirements for the Tyvek® process area. The sources of applicable requirements for the Tyvek® process area are as follows: the 12/28/2011 NSR permit, the 5/30/1996 RACT Agreement and 40 CFR 60 Subpart HHH (New Source Performance Standards for synthetic fiber manufacturing operations). All of the Subpart HHH and RACT requirements applicable to the Tyvek® process area have been incorporated into the conditions of the 12/28/2011 NSR permit, so it effectively serves as the source of all the Tyvek® process area applicable requirements.

Limitations

12/28/2011 NSR permit, 5/30/1996 RACT Agreement and 40 CFR 60 Subpart HHH

Conditions #2-4, #7 and #9 of the NSR permit contain VOC control requirements for the Tyvek® process area and have been included as Conditions #46-50 of the proposed TV permit.

Condition #6 of the NSR permit contains a fuel specification requirement for the Tyvek® heat regenerative incinerator and has been included as Condition #51 of the proposed TV permit.

Condition #12 of the NSR permit contains a throughput limitation for the Tyvek® process area and has been included as Condition #52 of the proposed TV permit.

Condition #14 of the NSR permit and Condition #E.16 of the RACT Agreement specify LDAR requirements for the Tyvek® process area and have been included as Condition #53 of the proposed TV permit.

Condition #13 of the NSR permit contains a general requirement that the source complies with all applicable provisions of 40 CFR 60 Subpart HHH and has been included as Condition #54 of the proposed Title V permit.

Condition #15 of the NSR permit contains hourly and annual emission limits for the Tyvek® process area has been included as Condition #55 of the proposed TV permit.

Condition #16 of the NSR permit specifies allowable HAP pollutants in the Tyvek® process area spiking agents and has been included as Condition #56 of the proposed Title V permit.

Condition #17 of the NSR permit specifies an opacity standard for the Tyvek® process area and has been included as Condition #57 of the proposed Title V permit.

Monitoring/Testing/Recordkeeping/Reporting

12/28/2011 NSR permit, 5/30/1996 RACT Agreement and 40 CFR 60 Subpart HHH

With two exceptions, the monitoring, testing and recordkeeping requirements in Conditions #5, #8, #10, #13, #14 and #18 of the 12/28/2011 NSR permit have been examined and determined to meet Part 70 requirements as is. Condition #5 requires that the incinerator's ceramic packing be inspected and replaced in accordance with the manufacturer's recommendation, Condition #10 requires temperature measuring devices on the incinerator, Condition #8 requires that the Tyvek® process area control devices be operated as established during past performance tests, Condition #13 requires certain Subpart HHH recordkeeping and reporting and Conditions #14 and #18 require recordkeeping of the of process throughputs, emission calculations, monitoring data and LDAR data. As described below, in this way, these collective monitoring requirements serve to provide a reasonable assurance of compliance with the control, emission standard and emission limit requirements for the Tyvek® process area from the 12/28/2011 NSR permit, the RACT Agreement and 40 CFR 60 Subpart HHH. These requirements have been included as Conditions #59-61, #63, #65 and #89 of the proposed TV permit. Note that since Condition #89 of the proposed Title V permit requires operating practice recordkeeping that is applicable to all four main process areas of the facility, this condition was located in the facility-wide section of the Title V permit to avoid the necessity of duplicate appearances.

Applicable Requirement (TV Condition #)	Associated Monitoring Conditions (TV Condition #)
46-48	59, 60-61, 63.h
49	62, 63.i
50	89
51	63.h
52	63.a
53	63.f
54	63.e, 65
55	63.c-d
56	63.b
57	58, 63.g, 64

The first of the aforementioned exceptions is that the 12/28/2011 NSR permit does not contain any periodic monitoring for the opacity standard from Condition #17. To provide a reasonable assurance of compliance with this standard, Conditions #58, #63.g and #64 were added to the proposed TV permit. These conditions require monthly visible emission observations of the Tyvek® process area stacks, corrective action to any unit where any visible emissions are observed, and associated recordkeeping and reporting.

The second of the aforementioned exceptions is that the 12/28/2011 NSR permit does not contain any periodic monitoring for the emission control requirements of Condition #7. To provide a reasonable assurance of compliance with these requirements, Conditions #62 and #63.i were added to the proposed Title V permit. These conditions require annual integrity inspections for the subject control mechanism, repairs as necessary and associated recordkeeping.

CAM

The Tyvek® process area includes one PSEU potentially applicable to CAM. This PSEU is VOC emissions (spin agent) from Lines 4 and 7 of the Tyvek® process area (Lines 1 and 2 are not subject to any emission limitation and are therefore not applicable to CAM). Dupont's 11/2008 application indicates that this PSEU has pre-controlled

VOC emissions above 100 tons/yr and that it is subject to CAM applicable emission limits. The Tyvek® PSEU also incorporates equipment designed to reduce the amount of VOC emitted into the atmosphere. However, DuPont's TV application adequately demonstrates that majority of this equipment for both PSEUs should properly be considered inherent process equipment as defined in the CAM regulations (40 CFR 64). There is one potential exception to this inherent process designation for the Tyvek® VOC PSEU: the solvent recovery systems for Lines 4 and 7 are each equipped with final thermal oxidizers (TO) that are subject to specific applicable requirements in the Title V permit. Since these TOs do not recover any solvent, they are considered air pollution control devices as opposed to recovery equipment. Therefore, as presented in DuPont's 11/2008 application, these TOs would have been subject to CAM. However, DuPont revised their TV application with new pre-controlled emission calculations (dated June 28, 2010) for Lines 4 and 7 as exhausted to the TOs. These calculations were based on both actual performance test data and the as-built engineering specifications for Lines 4 and 7, and they demonstrate that the pre-controlled VOC emissions from Lines 4 and 7 are each below 100 tons/yr (the CAM major source threshold for VOC). Since this requirement for CAM applicability is no longer fulfilled, there are no longer any CAM applicable PSEUs in the Tyvek® process area.

EMISSION UNIT APPLICABLE REQUIREMENTS – Zytel® Process Area

The source has emission unit specific applicable requirements for the Zytel® process area. The sources of applicable requirements for the Zytel® process area are as follows: the 5/14/2010 NSR permit, the 5/30/1996 RACT Agreement, the new and modified source visible emission standard; 9 VAC 5-50-80 and the existing source fuel burning equipment emission standard; Rule 4-8. The Zytel® process area is considered to be new/modified due to various modifications that have occurred since 1972, therefore the new source opacity standard is applicable to its visible emission sources (the dowtherm heaters ZYE08-11). However, the dowtherm heaters have never triggered any new source applicable requirements, so by default (9 VAC 5-50-10 D), the existing source fuel burning equipment emission standards of Rule 4-8 are applicable to these units.

Limitations

5/14/2010 NSR permit and 5/30/1996 RACT Agreement

Conditions #3-4 of the NSR permit contain VOC control and control device operating parameter requirements for the Zytel® process area and have been included as Conditions #66-67 of the proposed TV permit.

Condition #7 of the NSR permit contains a throughput limitation for the Zytel® process area and has been included as Condition #68 of the proposed TV permit.

Condition #8 of the NSR permit contains a process work practice requirement for the Zytel® process area and has been included as Condition #69 of the proposed TV permit.

Condition #9 of the NSR permit contains hourly and annual VOC emission limits for the Zytel® process area has been included as Condition #70 of the proposed TV permit.

Condition #E.12 of the RACT Agreement specifies LDAR requirements for the Zytel® process area and has been included as Condition #71 of the proposed TV permit.

Rule 4-8

This applicable PM and SO₂ standards from this Rule have been included as Condition #72 of the proposed Title V permit.

New and modified source visible emission standard: 9 VAC 5-50-80

This visible emission standard has been included as Condition #73 of the proposed Title V permit.

Monitoring/Testing/Recordkeeping/Reporting

5/14/2010 NSR permit and 5/30/1996 RACT Agreement

The monitoring, testing and recordkeeping requirements in Conditions #5, #6, #8 and #12 of the 5/14/2010 NSR permit and Condition #E.12 of the RACT agreement have been examined and determined to meet Part 70 requirements as is. Conditions #5-6 specify control device parametric monitoring and data collection requirements for the Zytel® process area. Condition #8 specifies process parametric monitoring and reporting requirements for the Zytel® process area. Condition #12 requires recordkeeping of process throughputs, control device monitoring data and process monitoring data. Condition #E.12 requires recordkeeping of applicable LDAR data. As described below, in this way, these collective monitoring requirements serve to provide a reasonable assurance of compliance with the applicable requirements for the Zytel® process area from the 5/14/2010 NSR permit and the RACT Agreement. These requirements have been included as Conditions #74-76, #78 and #80 of the proposed TV permit.

Applicable Requirement (TV Condition #)	Associated Monitoring Conditions (TV Condition #)
66-67	74-75, 78.c
68	78.a
69	76, 78.b, 80
70	74-76, 78, 80
71	78.d

New and modified source visible emission standard: 9 VAC 5-50-80

To provide a reasonable assurance of compliance with this standard, Conditions #77, #78.f and #79 were added to the proposed TV permit. These conditions require monthly visible emission observations of the Zytel® process area stacks, corrective action to any unit where any visible emissions are observed, and associated recordkeeping and reporting.

Existing source fuel burning equipment emission standard: Rule 4-8

To provide a reasonable assurance of compliance with this standard, Condition #78.e was added to the proposed TV permit. These conditions require emission factor recordkeeping for Zytel® process area fuel combustion equipment. Since these units are natural gas fired, no further monitoring data is required.

CAM

There are no emission units in the Zytel® process area that have pre-controlled emissions above any major source applicability level, therefore CAM is not applicable to any Zytel® process area emission units.

EMISSION UNIT APPLICABLE REQUIREMENTS – Emergency Generators

The source has emission unit specific applicable requirements for emergency generators. The sources of applicable requirements for the emergency generators are as follows: the new and modified source visible emission standard; 9 VAC 5-50-80 and 40 CFR 63 Subpart ZZZZ (MACT standard for reciprocating internal combustion engines).

Limitations

New and modified source visible emission standard: 9 VAC 5-50-80

This visible emission standard has been included as Condition #81 of the proposed Title V permit.

40 CFR 63 Subpart ZZZZ

Condition #85 of the proposed TV permit contains a reference to Section X of the TV permit for the 40 CFR 63 Subpart ZZZZ requirements of the emergency generators. Section X (Conditions #110-116 of the proposed TV permit) includes the work practice requirements, monitoring, recordkeeping and reporting requirements of the Subpart ZZZZ for the emergency generators.

Monitoring/Testing/Recordkeeping/Reporting

New and modified source visible emission standard: 9 VAC 5-50-80

To provide a reasonable assurance of compliance with this standard, Conditions #82-84 were added to the proposed TV permit. These conditions require monthly visible emission observations of the emergency generators, corrective action to any unit where any visible emissions are observed, and associated recordkeeping and reporting.

40 CFR 63 Subpart ZZZZ

By definition, Part 63 MACT standards are presumed to include sufficient monitoring, recordkeeping and reporting requirements to satisfy both periodic monitoring and CAM requirements.

EMISSION UNIT APPLICABLE REQUIREMENTS – Facility-Wide Conditions

The source has facility-wide applicable requirements from two sources: the operator training and maintenance work practice requirements from the collection of NSR permits for the NOMEX®, Kevlar®, Tyvek® and Zytel® process areas and the existing source emission standard for solvent metal cleaning operations using non-halogenated solvents (Rule 4-24).

Limitations

NSR Permit Work Practice Requirements

Conditions #29-30 of the 2/25/2011 NOMEX® NSR permit, Condition #29 of the 11/19/2010 Kevlar® NSR permit, Condition #22 of the 12/28/2011 Tyvek® NSR permit and Condition #17 of the 5/14/2010 Zytel® NSR permit contain facility-wide operator training and maintenance work practice requirements and have been included as Conditions #86 and #87 of the proposed Title V permit.

Rule 4-24

The applicable VOC control and work practice standards for solvent metal cleaning have been included as Conditions #90-93 of the proposed Title V permit.

Monitoring/Testing/Recordkeeping/Reporting

NSR Permit Work Practice Requirements

The existing recordkeeping requirements of Conditions #16 and #29-30 of the 2/25/2011 NSR permit, Conditions #23 and #29 of the 11/19/2010 NSR permit, Conditions #18 and #22 of the 12/28/2011 NSR permit and Conditions #12 and #17 of the 5/14/2010 NSR permit have been examined and determined to be sufficient for Title V purposes. These recordkeeping requirements have been collectively included as Condition #88 of the proposed Title V permit.

Rule 4-24

To provide a reasonable assurance of compliance with these requirements, Condition #94 was added to the proposed TV permit. This condition requires the source to maintain records demonstrating that each solvent metal cleaning operation is in compliance with Rule 4-24.

EMISSION UNIT APPLICABLE REQUIREMENTS – 40 CFR 63 Subparts A and FFFF (National Emissions Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing)

As previously noted, the source has emission unit specific applicable requirements for the NOMEX® and Kevlar® process areas from 40 CFR 63 Subparts A and FFFF. Section IX of the proposed TV permit contains the specific requirements of this MACT for the facility. The specific requirements include:

- General MACT compliance requirements for Subparts A and FFFF – Proposed Conditions #97-99
- Closed vent system requirements from 63.2450, 63.982(c), 63.983 and 63.985 – Proposed Condition #100
- Emission limitations for continuous process vents, storage tanks and wastewater streams from 63.2455, 63.2470 and 63.2485 – Proposed Conditions #101-103
- LDAR requirements from 63.2480 – Proposed Conditions #104
- Heat exchanger requirements from 63.2490 – Proposed Condition #105
- Monitoring requirements from 63.993 and 63.996 – Proposed Condition #106
- Notification and reporting requirements from 63.2515 and 63.2520 – Proposed Conditions #107-108
- Recordkeeping requirements from 63.2450(k), 63.147(b) and 63.2525 – Proposed Condition #109

By default, the MACT testing, monitoring, recordkeeping and reporting requirements are deemed sufficient for periodic monitoring and CAM purposes (40 CFR 64.1).

EMISSION UNIT APPLICABLE REQUIREMENTS – 40 CFR 63 Subparts A and ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE))

As previously noted, the source has emission unit specific applicable requirements for the emergency generators from 40 CFR 63 Subparts A and ZZZZ. Section X of the proposed TV permit contains the specific requirements of this MACT for the facility. The specific requirements include:

- Work Practice requirements for oil, oil filter, air cleaner and hose/belt inspections/maintenance from Table 2C of 40 CFR 63 Subpart ZZZZ – Proposed Condition #110
- Engine operation/maintenance plant requirements from 63.6625(e) – Proposed Condition #111
- Hours of operation requirements from 63.6640(f) – Proposed Condition #112
- Non-resettable hour meter requirements from 63.6625(f) – Proposed Condition #113
- Reporting requirements from 63.6650 – Proposed Condition #114
- Recordkeeping requirements from 63.6655 – Proposed Condition #115
- General MACT compliance requirement for Subparts A and ZZZZ – Proposed Condition #116

It should be noted that, for the purposes of 40 CFR 63 Subpart ZZZZ, DuPont's emergency generators (except for MIE03-04) are considered existing emergency compression ignition RICE with capacities of 500 horsepower or less. Because of this classification and because they are located at a major source, many of the other Subpart ZZZZ requirements (emission standards, performance tests, fuel standards, NOCS reports, initial notifications) are not applicable.

By default, the MACT testing, monitoring, recordkeeping and reporting requirements are deemed sufficient for periodic monitoring and CAM purposes (40 CFR 64.1).

It should be noted that the two 1095 hp emergency generators (MIE03-04) do not have any applicable requirements from 40 CFR 63 Subpart ZZZZ in accordance with 63.6590(b) because their capacities exceed 500 hp.

EMISSION UNIT APPLICABLE REQUIREMENTS – 40 CFR 63 Subparts A and DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters (Boiler MACT))

On March 21, 2011, EPA finalized the Boiler MACT. However, on December 23, 2011 EPA published a proposed reconsideration of the Boiler MACT. As of this date, the proposed reconsideration has not been finalized and the March 21, 2011 version of the Boiler MACT technically remains effective. However, on March 13, 2012 and again on July 18, 2012, EPA released “No Action Assurance” letters regarding the March 21, 2011 Boiler MACT. These letters essentially declare that EPA will not enforce the March 21, 2011 regulation. Although DuPont operates emission units (Dowtherm® Vaporizers) potentially subject to 40 CFR 63 Subpart DDDDD, the specific applicable requirements from this regulation have not been included in the proposed TV permit due to the uncertainty that surrounds it. Instead, a general condition (Proposed Condition #117) requiring the permittee to comply with any applicable requirements of 40 CFR 63 Subpart DDDDD has been included in the proposed TV permit.

OBSOLETE REQUIREMENTS

Certain conditions of the 1987, 2010 and 2011 NSR permits for the source are obsolete, no longer serve any meaningful purpose, and/or are unnecessary for Title V considerations (primarily because they contain no applicable requirements). Therefore, these conditions do not appear in the Title V permit.

1987 Kevlar® SEE 41 permit

Conditions #1-3 and #II.9 contain general descriptive information which are not requirements and will therefore not be included in the Title V permit.

Conditions #7, #II.1-3 and #II.11 contain one-time testing and/or notification requirements and/or a permit invalidation clause based upon the construction schedule of the permitted equipment. As these conditions have already been performed and the subject equipment constructed, they are obsolete for Title V purposes.

Condition #II.12 is not being included as an applicable requirement in the Title V permit because it is redundant. Condition T in the General Permit Condition Section of the Title V permit describes the requirements for transfer of ownership relative to the Title V permit. The transfer of ownership requirements for the NSR permit are therefore inappropriate for inclusion in the Title V permit.

Conditions #II.5 and #II.6 describes VA’s power to modify, rescind, or reissue the permit under certain circumstances which can be considered extraneous to the Title V permit. The assumption underlying this determination is that if an NSR permit is revoked or modified through unsolicited action by DEQ, the Title V permit will be changed in a separate and independent action from the NSR change. The Title V permit will change to reflect the changes in applicable requirements brought about by the NSR change.

Condition #II.8 is not being included as an applicable requirement in the Title V permit because similar provisions are included in the Conditions E and F in the General Permit Condition Section of the Title V permit and are included as part of the malfunction reporting requirements for the overall permit. Including these conditions as a separate enforceable condition on the permitted equipment in addition to the entire listing of equipment covered by the TITLE V permit creates a situation where conditions are both redundant and confusing.

Conditions #II.7, #II.10, #II.13 and #II.14 will not be included in the Title V permit because they contain no specific requirements, are environmentally insignificant or made redundant by General Condition S of the Title V permit.

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Conditions #6 and #II.4 will not be included in the Title V permit because the testing port provisions they contain are made redundant by Condition #95 (Facility-Wide Section) of the Title V permit.

2010 Kevlar® permit

Conditions #1 and #2 contain general descriptive information which are not requirements and will therefore not be included in the Title V permit.

Conditions #20, #21 and #26 contain one-time testing and/or notification requirements and/or a permit invalidation clause based upon the construction schedule of the permitted equipment. As these conditions have already been performed and the subject equipment constructed, they are obsolete for Title V purposes.

Condition #31 is not being included as an applicable requirement in the Title V permit because it is redundant. Condition T in the General Permit Condition Section of the Title V permit describes the requirements for transfer of ownership relative to the Title V permit. The transfer of ownership requirements for the NSR permit are therefore inappropriate for inclusion in the Title V permit.

Condition #30 describes VA's power to modify, rescind, or reissue the permit under certain circumstances which can be considered extraneous to the Title V permit. The assumption underlying this determination is that if an NSR permit is revoked or modified through unsolicited action by DEQ, the Title V permit will be changed in a separate and independent action from the NSR change. The Title V permit will change to reflect the changes in applicable requirements brought about by the NSR change.

Condition #27 is not being included as an applicable requirement in the Title V permit because it is out-dated. The Part 70 regulations define specific inspection and entry requirements consistent with the issuance of a TITLE V permit. These requirements are described in Condition Q in the General Permit Condition Section of the Title V permit and are at least as stringent as the NSR requirements. Inclusion of this condition would be redundant and the requirements have been overtaken by the Title V (Part 70) regulations.

Conditions #25 and #32 are not being included as applicable requirements in the Title V permit because similar provisions are included in the Conditions E and F in the General Permit Condition Section of the Title V permit and are included as part of the malfunction reporting requirements for the overall permit. Including these conditions as a separate enforceable condition on the permitted equipment in addition to the entire listing of equipment covered by the TITLE V permit creates a situation where conditions are both redundant and confusing.

Conditions #28 and #33 will not be included in the Title V permit because they contain no specific requirements, are environmentally insignificant or made redundant by General Condition S of the Title V permit.

Condition #19 will not be included in the Title V permit because the testing port provisions it contains are made redundant by Condition #95 (Facility-Wide Section) of the Title V permit.

2010 Zytel® permit

Conditions #1 and #2 contain general descriptive information which are not requirements and will therefore not be included in the Title V permit.

Conditions #11 and #14 contain one-time testing and/or notification requirements and/or a permit invalidation clause based upon the construction schedule of the permitted equipment. As these conditions have already been performed and the subject equipment constructed, they are obsolete for Title V purposes.

Condition #19 is not being included as an applicable requirement in the Title V permit because it is redundant. Condition T in the General Permit Condition Section of the Title V permit describes the requirements for transfer of ownership relative to the Title V permit. The transfer of ownership requirements for the NSR permit are therefore inappropriate for inclusion in the Title V permit.

Condition #18 describes VA's power to modify, rescind, or reissue the permit under certain circumstances which can be considered extraneous to the Title V permit. The assumption underlying this determination is that if an NSR permit is revoked or modified through unsolicited action by DEQ, the Title V permit will be changed in a separate and independent action from the NSR change. The Title V permit will change to reflect the changes in applicable requirements brought about by the NSR change.

Condition #15 is not being included as an applicable requirement in the Title V permit because it is out-dated. The Part 70 regulations define specific inspection and entry requirements consistent with the issuance of a TITLE V permit. These requirements are described in Condition Q in the General Permit Condition Section of the Title V permit and are at least as stringent as the NSR requirements. Inclusion of this condition would be redundant and the requirements have been overtaken by the Title V (Part 70) regulations.

Conditions #13 and #20 are not being included as applicable requirements in the Title V permit because similar provisions are included in the Conditions E and F in the General Permit Condition Section of the Title V permit and are included as part of the malfunction reporting requirements for the overall permit. Including these conditions as a separate enforceable condition on the permitted equipment in addition to the entire listing of equipment covered by the TITLE V permit creates a situation where conditions are both redundant and confusing.

Conditions #16 and #21 will not be included in the Title V permit because they contain no specific requirements, are environmentally insignificant or made redundant by General Condition S of the Title V permit.

Condition #10 will not be included in the Title V permit because the testing port provisions it contains are made redundant by Condition #95 (Facility-Wide Section) of the Title V permit.

2011 Tyvek® permit

Condition #1 contains general descriptive information which are not requirements and will therefore not be included in the Title V permit.

Condition #11 will not be included in the Title V permit because the testing port provisions it contains are made redundant by Condition #95 (Facility-Wide Section) of the Title V permit.

Condition #19 contains a permit invalidation clause based upon the construction schedule of the permitted equipment. As this condition had already been performed and the subject equipment constructed, it is obsolete for Title V purposes.

Condition #20 describes VA's power to modify, rescind, or reissue the permit under certain circumstances which can be considered extraneous to the Title V permit. The assumption underlying this determination is that if an NSR permit is revoked or modified through unsolicited action by DEQ, the Title V permit will be changed in a separate and independent action from the NSR change. The Title V permit will change to reflect the changes in applicable requirements brought about by the NSR change.

Condition #21 is not being included as an applicable requirement in the Title V permit because it is out-dated. The Part 70 regulations define specific inspection and entry requirements consistent with the issuance of a TITLE V permit. These requirements are described in Condition Q in the General Permit Condition Section of the Title V

permit and are at least as stringent as the NSR requirements. Inclusion of this condition would be redundant and the requirements have been overtaken by the Title V (Part 70) regulations.

Conditions #23 and #24 are not being included as applicable requirements in the Title V permit because similar provisions are included in the Conditions E and F in the General Permit Condition Section of the Title V permit and are included as part of the malfunction reporting requirements for the overall permit. Including these conditions as a separate enforceable condition on the permitted equipment in addition to the entire listing of equipment covered by the TITLE V permit creates a situation where conditions are both redundant and confusing.

Conditions #25 and #27 will not be included in the Title V permit because they contain no specific requirements, are environmentally insignificant or made redundant by General Condition S of the Title V permit.

Condition #26 is not being included as an applicable requirement in the Title V permit because it is redundant. Condition T in the General Permit Condition Section of the Title V permit describes the requirements for transfer of ownership relative to the Title V permit. The transfer of ownership requirements for the NSR permit are therefore inappropriate for inclusion in the Title V permit.

2011 NOMEX® permit

Conditions #1 and #2 contain general descriptive information which are not requirements and will therefore not be included in the Title V permit.

Conditions #22, #23 and #31 contain one-time testing and/or notification requirements and/or a permit invalidation clause based upon the construction schedule of the permitted equipment. As these conditions have already been performed and the subject equipment constructed, they are obsolete for Title V purposes.

Condition #32 is not being included as an applicable requirement in the Title V permit because it is redundant. Condition T in the General Permit Condition Section of the Title V permit describes the requirements for transfer of ownership relative to the Title V permit. The transfer of ownership requirements for the NSR permit are therefore inappropriate for inclusion in the Title V permit.

Condition #26 describes VA's power to modify, rescind, or reissue the permit under certain circumstances which can be considered extraneous to the Title V permit. The assumption underlying this determination is that if an NSR permit is revoked or modified through unsolicited action by DEQ, the Title V permit will be changed in a separate and independent action from the NSR change. The Title V permit will change to reflect the changes in applicable requirements brought about by the NSR change.

Condition #27 is not being included as an applicable requirement in the Title V permit because it is out-dated. The Part 70 regulations define specific inspection and entry requirements consistent with the issuance of a TITLE V permit. These requirements are described in Condition Q in the General Permit Condition Section of the Title V permit and are at least as stringent as the NSR requirements. Inclusion of this condition would be redundant and the requirements have been overtaken by the Title V (Part 70) regulations.

Condition #28 is not being included as an applicable requirement in the Title V permit because similar provisions are included in the Conditions E and F in the General Permit Condition Section of the Title V permit and are included as part of the malfunction reporting requirements for the overall permit. Including these conditions as a separate enforceable condition on the permitted equipment in addition to the entire listing of equipment covered by the TITLE V permit creates a situation where conditions are both redundant and confusing.

Conditions #33 and #34 will not be included in the Title V permit because they contain no specific requirements, are environmentally insignificant or made redundant by General Condition S of the Title V permit.

Condition #15 will not be included in the Title V permit because the testing port provisions it contains are made redundant by Condition #95 (Facility-Wide Section) of the Title V permit.

STREAMLINED REQUIREMENTS

In Conditions #E.7 and #E.11 of the 1996 RACT Agreement, a 98.3% VOC control efficiency requirement was imposed on the Kevlar® and NOMEX® solvent recovery processes on a six-month rolling average basis. However, the respective NSR permits for these areas already contain similar standards of equal or greater stringency. Therefore the requirements from the RACT Agreement will be streamlined from the Title V permit.

The Kevlar® standard appears in Condition #27 of the Title V permit and originated from Condition #10 of the 2010 Kevlar® NSR permit. This condition states “Volatile Organic Compound (n-methylpyrrolidone) emissions from Kevlar® polymerization and solvent recovery operations shall not exceed 17 pounds of VOC emissions per thousand pounds of solvent feed, calculated in accordance with the equations in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) and calculated monthly on a six month rolling average basis.” The equivalency to the RACT 98.3% standard is demonstrated as follows:

$$(1 - ((17/1000) \text{ pound VOC emissions per pound solvent feed})) \times 100 = 98.3\%$$

The NOMEX® standard appears in Condition #5 of the Title V permit and originated from Condition #20 of the 2011 NOMEX® NSR permit. This condition states “Volatile Organic Compound (VOC) emissions from NOMEX® spinning and solvent recovery operations shall not exceed 9.65 pounds of VOC emissions per thousand pounds of solvent feed, calculated in accordance with the equations in 40 CFR 60 Subpart HHH (although the facility is not actually subject to 40 CFR 60 Subpart HHH) and calculated monthly on a six month rolling average basis.” The equivalency to the RACT 98.3% standard is demonstrated as follows:

$$(1 - ((9.65/1000) \text{ pound VOC emissions per pound solvent feed})) \times 100 = 99.035\% > 98.3\%$$

In order to document these streamlined provisions, RACT Conditions #E.7 and #E.11 will be included in the regulatory citations for Conditions #27 and #5, respectively, of the Title V permit.

GREENHOUSE GAS (GHG) REQUIREMENTS

There are no applicable GHG permitting requirements for this source.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

Proposed Condition #XIV.B - Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-2003”.

Proposed Condition #XIV.F - Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

Proposed Condition #XIV.U - Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in Condition #XIV.U and Condition #XIV.F. For further explanation see the comments on Condition #XIV.F.

STATE ONLY APPLICABLE REQUIREMENTS

No State-Only requirements were identified.

FUTURE APPLICABLE REQUIREMENTS

No future applicable requirements were identified.

INAPPLICABLE REQUIREMENTS

No inapplicable requirements were identified.

INSIGNIFICANT EMISSION UNITS

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

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
MIT01-02	Two Gasoline/Diesel Storage Tanks	9 VAC 5-80-720 B	VOC	N/A
MIT03-04	Two No. 2 Fuel Oil Storage Tanks	9 VAC 5-80-720 B	VOC	N/A
ZYE15	Adipic Acid Unloading System	9 VAC 5-80-720 B	PM/PM10	N/A
MIE15	Aqueous Based Metal Cleaning Units	9 VAC 5-80-720 B	None	N/A
SEE42	One Caustic Railcar Unloading Station	9 VAC 5-80-720 B	None	N/A
TYE25-32	Polyethylene Pellet Storage Silos (8)	9 VAC 5-80-720 B	PM/PM10	N/A
ZYTAA	Zytel® Acetic Acid Tank	9 VAC 5-80-720 B	VOC	N/A
MIE11-12	Two 1.9 MMBtu/hr diesel-fired space heaters	9 VAC 5-80-720 A	N/A	N/A

CONFIDENTIAL INFORMATION

The permittee did submit confidential and non-confidential versions of their Title V application. Additionally, in accordance with DEQ's 2003 Confidentiality Policy, DuPont submitted a detailed showing for their confidential information claims. The DEQ approved the source's confidential showing. This showing included the use of certain surrogate parameters in lieu of confidential information such as maximum rated capacity and throughput limits. The relationship between the surrogate parameters and the confidential information is detailed in the confidential "key" document provided by DuPont with their showing. Therefore, there is only one version of the Title V permit (and Statement of Basis), and it does NOT contain any confidential information. The "key" will be the only permit-related document filed as confidential.

PUBLIC PARTICIPATION

The draft permit went to public notice in the April 4, 2012 edition of Style Weekly. The 30-day comment period specified in the public notice commenced on April 5, 2012 and ended on May 4, 2012. No comments of any kind were received regarding the draft/proposed permit.

The proposed permit and associated documents were transmitted to EPA Region III on April 4, 2012, and the EPA 45-day review period began on April 5, 2012. The EPA review period concluded on May 19, 2012, and no comments were received from EPA.