STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

DuPont Nutrition USA, Inc. **Knox County** **Rockland, Maine** **A-366-70-G-R/A**	**Departmental** **Findings of Fact and Order** **Part 70 Air Emission License** **Renewal with Amendment**

FINDINGS OF FACT

After review of the Part 70 License renewal and amendment applications, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	DuPont Nutrition USA, Inc. (DuPont)
LICENSE TYPE	Part 70 License Renewal and Part 70 Significant License Modification
NAICS CODES	311999, 325412
NATURE OF BUSINESS	Refined Hydrocolloid Products
FACILITY LOCATION	Crocketts Point, Rockland

DuPont is a manufacturer of carrageenan, clarified locust bean gum, and other hydrocolloids used mostly as food additives. DuPont also manufactures agarose for use in molecular biology.

DuPont has the potential to emit more than 100 tons per year (tpy) of sulfur dioxide (SO_2) and nitrogen oxides (NO_x), more than 50 tpy of volatile organic compounds (VOC), and more than 100,000 tpy of carbon dioxide equivalent (CO_2e). Therefore, DuPont is a major source for criteria pollutants.

DuPont does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP and is therefore considered an area source for HAP.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Boilers

Equipment (Asset #)	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type, % sulfur	Install. Date	Stack #
Boiler #3 (E9030)	85.6	83,107 scf/hr	natural gas, negligible	1966	5-1
		611 gal/hr	distillate fuel, 0.5%		
Boiler #4 (E9040)	48.6	47,184	natural gas, negligible	1965	5-1
		347	distillate fuel, 0.5%		
Boiler #5 (E9050)	48.4	46,990	natural gas, negligible	1963	5-1
		346	distillate fuel, 0.5%		

Emergency Generators

Equipment (Asset #)	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Manf. Date
EU#23 B5 Generator (E9700)	6.0	43.8	distillate fuel, 0.0015%	pre-1993
EU#26 B15 Generator (E3994)	1.5	11.2	distillate fuel, 0.0015%	1994
EU#27 B2 Generator (E2980)	6.0	43.8	distillate fuel, 0.0015%	1976

Process Equipment

Equipment (Asset #)	Maximum Production Rate	Pollution Control Equipment	Exhaust ID
#1, Lime Unloading (E3205)	25 ton/day	Baghouse	15-1
#3, Weed Cleaning System (E3391D)	25,000 lb/hr	Baghouse	15-2
#4, Perlite Unloading (E1221)	4,000 lb/hr	Baghouse	1A-1
#5, Cook Vent Filtration System (E1239)	N/A	Cyclone	1A-3
#6, FID Hydrocolloids Isopropanol Process (E2501, E2905, E2460)	3,000 lb/hr	Wet Scrubbers (2)	2-2, 2-9, 2-6
#7, Vacuum System for Belt Dryer Area (E2392)	2,200 lb/hr	Baghouse	2-41
#8, Grinder Feed System (E4000D)	2,000 lb/hr	Baghouse	3A-4
#9, A44 Grinder System (E4004)	2,000 lb/hr	Baghouse	3A-5
#10, ACM 60 Grinder System (E4134)	2,000 lb/hr	Baghouse	3A-6
#11, Tote Dumper System (E4518)	12,000 lb/hr	Baghouse	3A-7
#12, Blending Product Conveyor System (E4597)	N/A	Baghouse	3A-3
#13, Blending Area & Vacuum System (E4910)	N/A	Baghouse	8A-1
#14, Bulk Bag Filling System (E4114D)	N/A	Baghouse	8A-2
#16, Specialty Blender System (E45710)	N/A	Baghouse	7-1
#29, Blending & Packaging System (F4589)	N/A	Baghouses	13-7
#17, Agarose Isopropanol Process (C8803)	750 lb/hr	Wet Scrubber	17-1
#18, Agarose Grinding Process (X8324)	N/A	Baghouse	17-10
#19, Pilot Plant (E5910)	N/A	Wet Scrubber	18-1

DuPont has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140. Production rates listed in this Section I(B) are not intended to be enforceable limits. Any production rates that are intended to be considered enforceable limits are set forth in the Order section of this license.

C. Removed Equipment

The previously licensed Bldg 3/8 Generator was never installed and is therefore removed from this air emission license.

The previously licensed parts washers have been converted to an aqueous-based cleaner with a VOC content less than 5%. This equipment is therefore exempt from *Solvent Degreasers*, 06-096 C.M.R. ch. 130 and considered an insignificant activity. Therefore, the parts washers have been removed from this air emission license.

The previously licensed gasoline storage tank has been removed from the site and not replaced. This equipment is therefore removed from this air emission license.

The AMC 10 Fine Grinding System has been permanently removed from service. This equipment is therefore removed from this air emission license.

The Belt Dryer and associated Belt Dryer Cyclone do not exhaust outside of the building and are therefore not included in this air emission license.

D. Definitions

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Portable Engine. For the purposes of this license, *portable engine* means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure,

facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

E. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for DuPont is for the renewal of their existing Part 70 Air License and subsequent Part 70 amendments. Pursuant to Section 2(A) of *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140, DuPont has also requested incorporation into the Part 70 Air License the relevant terms and conditions of the New Source Review (NSR) licenses issued to the facility pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115, including the following:

NSR License	Issued Date
A-366-77-3-M	9/22/10
A-366-77-2-A	10/18/10
A-366-77-4-M	5/30/12
A-366-77-5-M	10/7/13
A-366-77-6-A	3/26/14
A-366-77-7-A	11/9/16

Therefore, this license is considered to be a Part 70 License renewal with the incorporation of NSR requirements.

F. Facility Description

The two main systems at the plant are the hydrocolloids process and the agarose process. The hydrocolloids process manufactures carrageenan, clarified locust bean gum, and other hydrocolloids. Agarose is manufactured in the agarose process.

Hydrocolloid Process Description

The Hydrocolloids Process produces mainly carrageenan from seaweed. Different types of red seaweed are used to produce carrageenans with varying characteristics. The carrageenan process begins in Building 15 with weed cleaning. Here, the dried seaweed is chopped and sifted to remove extraneous material such as rocks and shells. The seaweed is then mixed with water and pumped to the pasting tanks.

In pasting, the mixture is heated to begin to extract the carrageenan. Process chemicals may be added to assist carrageenan extraction and modification. The material is held until modification and resting is complete.

The material is then pumped to Building 1 where it goes through a series of solids removal steps to remove sand and other small particles. This process involves shaker screens, hydroclones, centrifuges, and press filters. The filtrate is sent to evaporators in Building 2 where water is removed from the filtrate in a three-step evaporation process.

After evaporation, the filtrate is mixed with isopropyl alcohol (IPA) and a carrageenan precipitate is formed. The precipitate, or coagulant, is separated out of the alcohol/water solution. The alcohol/water solution is pumped to distillation where the alcohol is distilled out for reuse. The coagulant is slurried with a high concentration IPA in the wash tanks. After the wash tanks, the carrageenan alcohol mixture is pumped to a rotary screen where the IPA is again separated from the solid carrageenan. The liquid IPA flows to the high drain tank. The coagulant is further pressed to remove more alcohol and then dried.

In drying, vacuum dryers and a belt dryer are used. The vapors from the dryers pass to a vertical condenser containing coils fed with seawater. The condenser removes most of the liquid which goes to the distillation system. The remaining vapor goes to the Dryer Wet Scrubber.

The dried product is ground to a fine powder and sent to blending where it is formulated to customer specifications.

The same process is used to manufacture clarified locust bean gum and other hydrocolloids. Since the raw material for some of these other hydrocolloids comes pre-processed, the process for certain products begins with the filtration stages in Building 1 as described above. The remaining process is identical.

Agarose Process Description

Raw material for the production of Agarose is agar made from seaweed. The process begins by putting the agar into solution with water, heating it with steam, and adding chemicals to modify the agar. The modification involves a separation of agarose and agaropectin from the agar molecule. The solution is then neutralized with acetic acid.

After neutralization, the agaropectin is filtered out of solution using a filter press with a filter aid.

The solution is evaporated to reduce the volume, and then combined with IPA to form a precipitate. The precipitate is washed several times with water and alcohol and pressed to remove as much liquid as possible. The alcohol and water solutions are distilled to reuse the alcohol. The material is then dried using vacuum dryers and blended to customer specifications.

G. General Facility Requirements

DuPont is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units as described further in this license.

CITATION	REQUIREMENT TITLE
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 105	General Process Source Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 63, Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
40 C.F.R. Part 64	Compliance Assurance Monitoring
40 C.F.R. Part 70	State Operating Permit Programs
40 C.F.R. Part 98	Mandatory Greenhouse Gas Reporting

Note: C.M.R. = Code of Maine Regulations
C.F.R. = Code of Federal Regulations

H. Units of Measurement

The following units of measurement are used in this license:

gal/hr	gallon per hour
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
MMBtu/hr	million British Thermal Units per hour
MMBtu/year	million British Thermal Units per year
MMscf	million standard cubic feet
scf/hr	standard cubic feet per hour
tpy	tons per year

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98, which contains GHG reporting and related monitoring and recordkeeping requirements, is applicable to the owners/operators of any facility which falls into any one of the following three categories, per *General Provisions, Who must report?*, 40 C.F.R. § 98.2.

(a)(1) A facility that contains any source category that is listed in Table A–3 of this subpart in any calendar year starting in 2010.

(a)(2) A facility that contains any source category that is listed in Table A–4 of this subpart and that emits 25,000 metric tons CO_2e or more per year in combined emissions from

stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A–3 and Table A–4 of this subpart.

(a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual GHG report must cover emissions from stationary fuel combustion sources only.

(i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.

(ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.

(iii) The facility emits 25,000 metric tons CO_2e or more per year in combined emissions from all stationary fuel combustion sources.

If DuPont emits more than 25,000 metric tons of CO_2e (equivalent to 458 MMscf of natural gas or 2.46 MMgal of distillate fuel) in a calendar year, the facility will meet all three conditions listed in paragraph (a)(3) above and will be subject to the recordkeeping and reporting requirements of 40 C.F.R. Part 98.

This facility shall fulfill the recordkeeping and reporting requirements of 40 C.F.R. Part 98.

C. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64 is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than major source thresholds for any pollutant.

A major stationary source of air pollutants, as defined by Section 302 of the Clean Air Act (CAA), is a source which directly emits or has the potential to emit 100 tpy or more of any regulated pollutant (not including greenhouse gases). However, since Maine is presently in the Ozone Transport Region established pursuant to Section 184 of the CAA, the major source threshold for VOC is 50 tpy. [40 C.F.R. § 70.2, definition of *major source*]

1. VOC

The Hydrocolloids Process, the Agarose Process, and the Pilot Plant utilize wet scrubbers to control VOC, prior to which, these processes would have the potential to emit more than 50 tons per year of VOC. As such, CAM applies to these processes. DuPont submitted a CAM plan for VOC from these processes. The CAM proposal included monitoring of scrubber media flow. The CAM requirements for VOC from the Hydrocolloids Process, the Agarose Process and the Pilot Plant are incorporated into this renewal.

2. Particulate Matter (PM)

DuPont also operates the following processes that are controlled by baghouses. Due to the uncertainty involved in calculating the uncontrolled emissions from this equipment, it is unknown whether each process exceeds a potential to emit of more than 100 tpy of PM. However, DuPont has chosen to conservatively assume that they do and comply with CAM requirements for these units.

a. Unit #1, Lime Unloading
b. Unit #3, Weed Cleaning
c. Unit #4, Perlite Unloading
d. Unit #7, Vacuum System for Belt Dryer Area
e. Unit #8, Grinder Feed System
f. Unit #9, A44 Grinder System
g. Unit #10, ACM 60 Grinder System
h. Unit #11, Tote Dumper System
i. Unit #12, Blending Product Conveyor System
j. Unit #13, Blending Area and Vacuum System
k. Unit #14, Bulk Bag Filling System
l. Unit #29, Blending & Packaging System
m. Unit #18, Agarose Grinding Process

DuPont submitted a CAM plan for PM from these processes. The CAM proposal included use of baghouse PM detectors in conjunction with operator observations. The CAM requirements for PM from the facility baghouses are incorporated into this renewal.

D. Boilers

DuPont operates three boilers for facility heat and process steam requirements.

Boiler #3 (also known as Unit #20 or E9030) was manufactured by Union Iron Works in 1966 with a heat input capacity of 85.6 MMBtu/hr.

Boiler #4 (also known as Unit #21 or E9040) was manufactured by Union Iron Works in 1965 with a heat input capacity of 48.6 MMBtu/hr.

Boiler #5 (also known as Unit #22 or E9050) was manufactured by Union Iron Works in 1963 with a heat input capacity of 48.4 MMBtu/hr.

The boilers were all originally designed to fire #6 fuel oil. However, New Source Review license A-366-77-6-A (issued 3/26/14) addressed the conversion of the boilers from #6 fuel oil to natural gas with distillate fuel as a back-up in case natural gas is unavailable. This

conversion has been completed, and the capacity to fire #6 fuel oil has been removed from the facility.

Emissions exit through a combined stack (Stack #5-1 or E9029), which has an inside diameter of 48 inches and above ground level (AGL) height of 131 feet.

1. Fuel Sulfur Content Requirements

   DuPont is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use at this facility shall not exceed 0.0015% by weight (15 ppm).

2. Throughput Limit

   In order to allow for the use of either natural gas or distillate fuel in each boiler, DuPont is subject to a heat input limit (MMBtu/year) rather than fuel throughput limits (scf/year, gal/year). Fuel use for Boilers #3, #4, and #5 combined shall not exceed the equivalent of 1,400,000 MMBtu/year for all fuel combined on a 12-month rolling total basis. When converting fuel use to MMBtu, DuPont shall use a heating value of 0.14 MMBtu/gallon for distillate fuel and 0.00103 MMBtu/scf, or the actual heat content provided by the supplier, for natural gas.

3. New Source Performance Standards (NSPS)

   Due to their years of manufacture, none of the boilers are subject to the New Source Performance Standards (NSPS) titled *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc. These standards apply to steam generating units with a heat input capacity of 10 MMBtu/hr or more that are constructed after June 9, 1989.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   Boilers #3, #4, and #5 are not currently subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ.

   Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJJ. However, boilers which fire fuel oil are not exempt. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on

liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 C.F.R. § 63.11237]

DuPont currently does not fire oil in the boilers other than during periods of gas curtailment, gas supply interruption, and periodic testing. Therefore, the boilers all meet the definition of gas-fired boiler and are exempt from 40 C.F.R. Part 63, Subpart JJJJJJ.

DuPont shall keep monthly records of the amount of distillate fuel fired and hours of distillate firing in each boiler and the reason (e.g. gas curtailment) distillate was utilized. Should DuPont elect to fire distillate in a boiler for reasons other than gas curtailment, gas supply interruption, or for more than 48 hours for testing in a calendar year, that boiler will become subject to 40 C.F.R. Part 63, Subpart JJJJJJ as an existing oil-fired boiler.

5. NO_x RACT

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO_x RACT) is applicable to sources that have the potential to emit quantities of NO_X equal to or greater than 100 tpy. Per 06-096 C.M.R. ch. 138, Boiler #3 is classified as a Mid-Size Boiler, and Boilers #4 and #5 are classified as Small Boilers.

Air emission license amendment A-366-72-H-A, issued to the facility on 2/7/96, addressed NO_x RACT requirements. At that time, Boilers #3, #4, and #5 fired #6 fuel oil. Boiler #3 was subject to an alternative NO_x RACT determination which required low NO_x burners and an emission limit of 0.5 lb/MMBtu. In 2014, DuPont converted the boilers to natural gas with distillate fuel as a back-up fuel. Since the conversion, Boiler #3 has been licensed below the NO_x emission limit in 06-096 C.M.R. ch. 138 and an alternative RACT is no longer required. Boilers #4 and #5 are subject to annual tune-up requirements per 06-096 C.M.R. ch. 138, Section 3(L). The NO_x RACT requirements for all three boilers are incorporated in this renewal.

6. Emission Limits and Streamlining

For Boiler #3 firing natural gas, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.08 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(b)	0.05 lb/MMBtu *
	0.05 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	4.28 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	4.28 lb/hr
PM_{10}	4.28 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	4.28 lb/hr
SO_2	0.05 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.05 lb/hr
NO_x	0.17 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	0.17 lb/MMBtu
	14.55 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	14.55 lb/hr
CO	6.98 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	6.98 lb/hr
VOC	0.46 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.46 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	10% opacity on a 6-minute block average basis, unless oil is being fired in one of the boilers *
	10% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period unless oil is being fired in one of the boilers	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	10% opacity on a 6-minute block average basis, unless oil is being fired in one of the boilers	06-096 C.M.R. ch. 140, BPT **State-only**	

For Boiler #3 firing distillate fuel, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.08 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(b)	0.08 lb/MMBtu
	6.85 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	6.85 lb/hr
PM_{10}	6.85 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	6.85 lb/hr
SO_2	43.11 lb/hr (based on 0.5% sulfur by weight)	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	43.11 lb/hr
NO_x	0.30 lb/MMBtu	06-096 C.M.R. ch. 138, § 3(B)(1)	0.20 lb/MMBtu *
	0.20 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	
	17.12 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	17.12 lb/hr
CO	3.06 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.06 lb/hr
VOC	0.12 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.12 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period of not more than 40% *
	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period of not more than 40%	06-096 C.M.R. ch. 140, BPT **State-only**	

For Boiler #4 firing natural gas, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.05 lb/MMBtu *
	0.05 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	2.43 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	2.43 lb/hr
PM_{10}	2.43 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	2.43 lb/hr
SO_2	0.03 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.03 lb/hr
NO_x	0.10 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.10 lb/MMBtu
	4.72 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	4.72 lb/hr
CO	3.96 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.96 lb/hr
VOC	0.26 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.26 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	10% opacity on a 6-minute block average basis, unless oil is being fired in one of the boilers *
	10% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period unless oil is being fired in one of the boilers	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	10% opacity on a 6-minute block average basis, unless oil is being fired in one of the boilers	06-096 C.M.R. ch. 140, BPT **State-only**	

For Boiler #4 firing distillate fuel, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.08 lb/MMBtu *
	0.08 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	3.89 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.89 lb/hr
PM_{10}	3.89 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.89 lb/hr
SO_2	24.47 lb/hr (based on 0.5% sulfur by weight)	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	24.47 lb/hr
NO_x	0.17 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.17 lb/MMBtu
	8.33 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	8.33 lb/hr
CO	1.74 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	1.74 lb/hr
VOC	0.07 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.07 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period of not more than 40%*
	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period of not more than 40%	06-096 C.M.R. ch. 140, BPT **State-only**	

For Boiler #5 firing natural gas, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.05 lb/MMBtu *
	0.05 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	2.42 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	2.42 lb/hr
PM_{10}	2.42 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	2.42 lb/hr
SO_2	0.03 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.03 lb/hr
NO_x	0.17 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	0.17 lb/MMBtu
	8.23 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	8.23 lb/hr
CO	3.95 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.95 lb/hr
VOC	0.26 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.26 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	10% opacity on a 6-minute block average basis, unless oil is being fired in one of the boilers *
	10% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period unless oil is being fired in one of the boilers	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	10% opacity on a 6-minute block average basis, unless oil is being fired in one of the boilers	06-096 C.M.R. ch. 140, BPT **State-only**	

For Boiler #5 firing distillate fuel, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.08 lb/MMBtu *
	0.08 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	3.87 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.87 lb/hr
PM_{10}	3.87 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	3.87 lb/hr
SO_2	24.37 lb/hr (based on 0.5% sulfur by weight)	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	24.37 lb/hr
NO_x	0.17 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.17 lb/MMBtu
	8.30 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	8.30 lb/hr
CO	1.73 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	1.73 lb/hr
VOC	0.07 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	0.07 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than three 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(5)(a)	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period of not more than 40%*
	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	
	20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hr period of not more than 40%	06-096 C.M.R. ch. 140, BPT **State-only**	

7. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #3 firing natural gas shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 5	As requested
	lb/hr		
PM_{10}	lb/hr	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 C.F.R. Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 7E	By December 31, 2018
	lb/hr	40 C.F.R. Part 60, App. A, Method 7E	As requested
CO	lb/hr	40 C.F.R. Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	% opacity on a 6-minute block average basis	40 C.F.R. Part 60, App. A, Method 9	As requested

Compliance with the emission limits associated with Boiler #3 firing distillate fuel and Boilers #4 and #5 firing either fuel shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 5	As requested
	lb/hr		
PM_{10}	lb/hr	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 C.F.R. Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 7E	As requested
	lb/hr	40 C.F.R. Part 60, App. A, Method 7E	As requested

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
CO	lb/hr	40 C.F.R. Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	% opacity on a 6-minute block average basis	40 C.F.R. Part 60, App. A, Method 9	As requested

8. Periodic Monitoring

DuPont shall operate and record data from the following periodic monitors for Boilers #3, #4, and #5:

a. Hours of operation of each boiler on a monthly and calendar year total basis.
b. Amount of natural gas (scf) fired in each boiler on a monthly and calendar year total basis.
c. Amount of distillate fuel (gallons) fired in each boiler on a monthly and calendar year total basis.
d. Date, duration (# of hours), and reason (e.g., gas curtailment) for all oil operation in each boiler.
e. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier.
f. The total heat input (MMBtu) for all boilers combined on a monthly and 12-month rolling total basis.
g. Dates of the annual tune-ups for Boilers #4 and #5.
h. Tune-up records for Boilers #4 and #5 including the tune-up procedure, an oxygen/carbon monoxide curve, and optimum excess oxygen setting.

9. Parameter Monitors

There are no Parameter Monitors required for Boilers #3, #4, and #5.

10. CEMS and COMS

There are no CEMS or COMS required for Boilers #3, #4, and #5.

E. Emergency Generators

DuPont operates three emergency generators. The emergency generators are generator sets, with each gen set consisting of an engine and an electrical generator. EU#23 B5 Generator and EU#27 B2 Generator have engines rated at 6.0 MMBtu/hr each. The engine associated with EU#26 B15 Generator is rated at 1.5 MMBtu/hr. All three generators fire distillate fuel and were manufactured prior to 2002.

1. New Source Performance Standards (NSPS)

   Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is not applicable to any of DuPont's generators since they were all manufactured prior to April 1, 2006.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator. These units are considered existing, emergency stationary reciprocating internal combustion engines (RICE) at an area HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

   a. Emergency Engine Designation and Operating Criteria

      Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

      (1) Emergency Situation Operation (On-Site)

      There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

      - Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);

- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

DuPont previously participated in an ISO New England's Demand Response Program. This program offers financial incentives to customers to reduce electricity demand during peak periods by using on-site generators. On May 1, 2015, the U.S. Court of Appeals issued a decision specifically vacating § 63.6640(f)(2), which had allowed for limited operation for emergency demand response purposes. DuPont cannot continue to participate in the Demand Response Program without the generators being classified as non-emergency. Therefore, DuPont has chosen to no longer participate in this program.

EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63,

Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all applicable requirements for non-emergency engines.

b. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

(1) Operation and Maintenance Requirements
[40 C.F.R. § 63.6603(a) and Table 2(d)]

	Operating Limitations
Compression ignition (distillate fuel) units:	- Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or DuPont shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program

DuPont has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, DuPont must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R.§ 63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ, Table 2d]

(5) Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping

DuPont shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

3. Emission Limits and Streamlining

For EU#23 B5 Generator, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.
(Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.12 lb/MMBtu
	0.72 lb/hr	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R) **State-only**	0.72 lb/hr **State-only**
PM_{10}	0.72 lb/hr	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R) **State-only**	0.72 lb/hr **State-only**
SO_2	0.01 lb/hr (based on 0.0015% sulfur by weight)	06-096 C.M.R. ch. 140, BPT **State-only**	0.01 lb/hr **State-only**
NO_x	19.20 lb/hr	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R) **State-only**	19.20 lb/hr **State-only**
CO	5.10 lb/hr	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R) **State-only**	5.10 lb/hr **State-only**
VOC	0.54 lb/hr	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R) **State-only**	0.54 lb/hr **State-only**
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(f)	20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed *
	20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed	06-096 C.M.R. ch. 140, BPT **State-only**	

For EU#26 B15 Generator, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.18 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	0.18 lb/hr
PM_{10}	0.18 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	0.18 lb/hr
SO_2	0.08 lb/hr (based on 0.05% sulfur by weight)	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	0.01 lb/hr *
	0.01 lb/hr (based on 0.0015% sulfur by weight)	06-096 C.M.R. ch. 140, BPT **State-only**	
NO_x	6.79 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	6.79 lb/hr
CO	1.46 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	1.46 lb/hr
VOC	0.54 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	0.54 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(f)	20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed *
	20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed	06-096 C.M.R. ch. 140, BPT **State-only**	

For EU#27 B2 Generator, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. (Note: "*" denotes a request for streamlining.)

Pollutant	Applicable Emission Standard	Origin and Authority	Licensed Emission Limit
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.12 lb/MMBtu
	0.72 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	0.72 lb/hr
PM_{10}	0.72 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	0.72 lb/hr
SO_2	0.01 lb/hr (based on 0.0015% sulfur by weight)	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	0.01 lb/hr
NO_x	19.20 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	19.20 lb/hr
CO	5.10 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	5.10 lb/hr
VOC	0.54 lb/hr	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	0.54 lb/hr
Visible Emissions	30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 101, § 2(B)(1)(f)	20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed *
	20% opacity on a 6-minute block average basis, except for two 6-minute block averages in a 3-hr period	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	
	20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed	06-096 C.M.R. ch. 140, BPT **State-only**	

4. Work Practice Standards

   During periods of startup, DuPont shall either comply with the visible emission standards for EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator or follow the following work practice standards. If DuPont elects to comply with work practice standards for a given generator, the work practice standards shall apply to all startups for that generator.

   a. DuPont shall maintain a log (written or electronic) of the date, time, and duration of all engine startups.

   b. The engine shall be operated in accordance with the manufacturer's emission-related operating instructions.

   c. DuPont shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup visible emission limitations apply.

   d. The engine, including any associated air pollution control equipment, shall be operated at all times 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 Department 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 unit.

5. Emission Limit Compliance Methods

   Compliance with the emission limits associated with the emergency generators shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

6. Compliance Assurance Monitoring

   CAM is not applicable to the emergency generators.

7. Periodic Monitoring

DuPont shall operate and record data from the following periodic monitors for each emergency generator.

a. Hours of operating time on a calendar year basis.
b. Log of the duration and reasons for all operating times as they occur.
c. Records of all maintenance conducted.
d. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier.

8. Parameter Monitors

There are no Parameter Monitors required for the emergency generators.

9. CEMS and COMS

There are no CEMS or COMS required for the emergency generators.

F. Portable Engines

DuPont may operate portable engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine which cannot meet the definition of "portable engine" as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

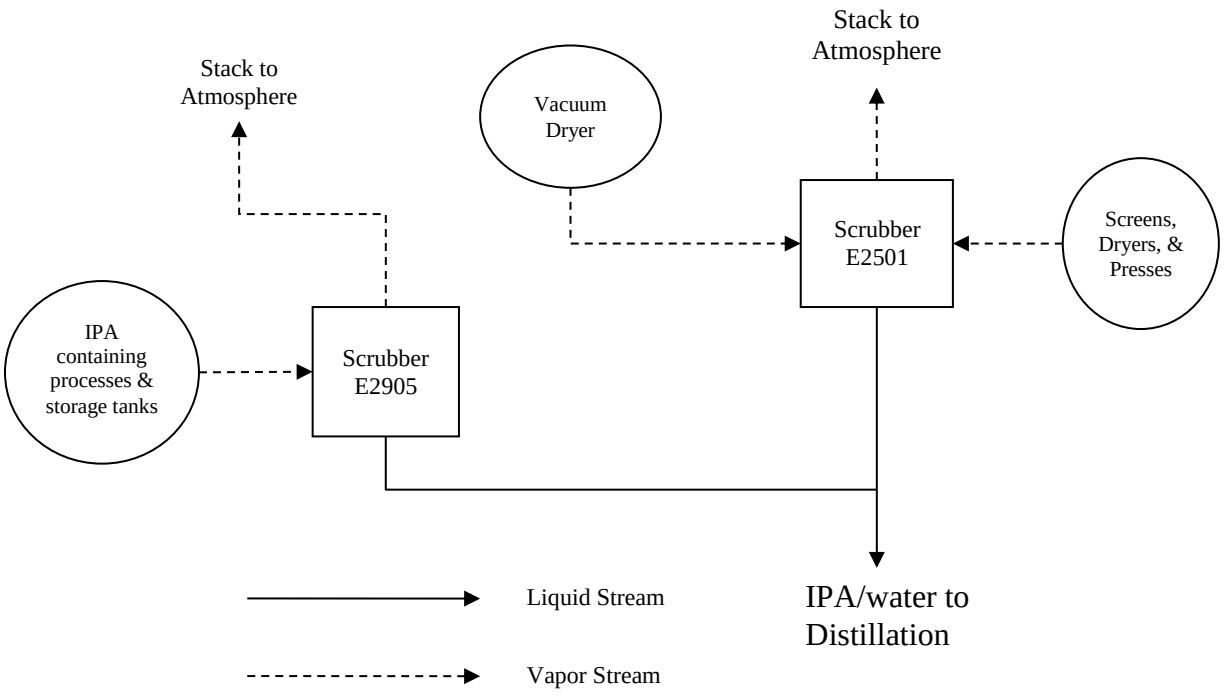
G. VOC Emissions from Process Equipment

DuPont uses isopropyl alcohol (IPA) in its processes. IPA is a VOC but not a HAP. The following processes are controlled to limit emissions of VOC:

Equipment ID	Pollution Control Equipment
#6, FID Hydrocolloids Isopropanol Process	Wet Scrubbers (2)
#17, Agarose Isopropanol Process	Wet Scrubber
#19, Pilot Plant	Wet Scrubber

The two scrubbers used for control in the Hydrocolloids Process are arranged in the following manner:

Hydrocolloids Scrubber System



1. VOC Emission Limit

   DuPont is limited to emissions of 426.0 tpy of VOC from the Hydrocolloid Process, Agarose Process, and Pilot Plant combined on a 12-month rolling total basis.

2. VOC RACT

   Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year.

   In accordance with 06-096 C.M.R. ch. 134 § 3(A)(1), Option A, DuPont operates a system of wet scrubbers designed to capture and control VOC emissions such that the total VOC emissions do not exceed, on a daily basis, 15% of the uncontrolled daily VOC emissions.

3. Compliance Methods

DuPont uses a facility-wide material balance approach to demonstrate compliance with the annual VOC emission limit and with the requirement that VOC emissions not exceed 15% of uncontrolled emissions (i.e., to demonstrate an 85% control efficiency).

DuPont calculates the facility's control efficiency on a monthly basis. Due to the many process variables and the difficulty of assessing inventory on a short-term basis, daily calculations have been determined to be less accurate than using monthly totals.

DuPont shall calculate and record the facility-wide VOC Control Efficiency on a calendar month basis using the following formula:

$$\text{VOC Control Efficiency \%} = \frac{\text{Total IPA Usage}^{(1)} - \text{Total VOC Emissions}^{(2)}}{\text{Total IPA Usage}^{(1)}} \times 100$$

[1] Total IPA Usage is determined by multiplying the total IPA (at 80% concentration) which flows through the system by 0.8 to remove the water fraction.

Total IPA Usage = Total Flow x 0.8

The Total Flow is measured by two flow meters: one for the Hydrocolloids Process and Pilot Plant and one for the Agarose Process.

[2] Total VOC Emissions are determined by calculating the total amount of IPA lost from the process and subtracting the amount of IPA discharged to the wastewater system as follows:

Total VOC Emissions = IPA Lost[3] – IPA Discharged to Wastewater[4]

[3] IPA Lost is determined by taking the number of gallons purchased, at 99% concentration, and adjusting for inventory as follows:

IPA Lost = Gallons IPA Purchased + Beginning Inventory – Ending Inventory

[4] IPA Discharged to Wastewater is determined daily by use of a flowmeter on the wastewater stream and a gas chromatograph to determine IPA concentration in the wastewater.

Compliance with the annual VOC emission limit shall be demonstrated through monthly calculations of Total VOC Emissions as outlined above. Records shall be kept on a monthly and 12-month rolling total basis.

4. Periodic Monitoring

DuPont shall operate and record data from the following periodic monitors for Process VOC emissions:

a. IPA purchase records on a monthly and 12-month rolling total basis.
b. Flow (gallons) through the Hydrocolloid Process and Pilot Plant (combined) on a daily and monthly total basis.
c. Calculated IPA usage (gallons) in the Hydrocolloid Process and Pilot Plant (combined) on a daily and monthly total basis.
d. Flow (gallons) through the Agarose Process on a daily and monthly total basis.
e. Calculated IPA usage (gallons) in the Agarose Process on a daily and monthly total basis.
f. Daily IPA concentration composite wastewater analysis.
g. Wastewater discharge flow (gallons) on a daily and monthly total basis.
h. Calculated IPA Discharged to Wastewater (gallons) on a daily and monthly total basis.
i. Calculated Total VOC Emissions from the Hydrocolloid Process, Pilot Plant, and Agarose Process combined on a monthly and 12-month rolling total basis.
j. Calculated VOC Control Efficiency (%) on a monthly basis.
k. Records of monthly inspections of each wet scrubber.
l. Records of any scrubber malfunctions and all maintenance activities.

5. Parameter Monitors

DuPont shall monitor continuously and record once per shift the scrubber media flow rate (gal/min) for each of the wet scrubbers used to control VOC from the Hydrocolloid Process, Pilot Plant, and Agarose Process. These monitors are included in DuPont's CAM plan.

H. PM Emissions from Process Equipment

DuPont's process contains many grinding, blending, and conveying systems that have potential emissions of PM. The following processes are controlled to limit emissions of PM:

Equipment ID	Pollution Control Equipment
#1, Lime Unloading	Baghouse
#3, Weed Cleaning System	Baghouse
#4, Perlite Unloading	Baghouse
#5, Cook Vent Filtration System	Cyclone
#7, Vacuum System for Belt Dryer Area	Baghouse
#8, Grinder Feed System	Baghouse
#9, A44 Grinder System	Baghouse
#10, ACM 60 Grinder System	Baghouse
#11, Tote Dumper System	Baghouse
#12, Blending Product Conveyor System	Baghouse
#13, Blending Area & Vacuum System	Baghouse
#14, Bulk Bag Filling System	Baghouse
#16, Specialty Blender System	Baghouse
#29, Blending & Packaging System	Baghouses
#18, Agarose Grinding Process	Baghouse

1. Emission Limits and Compliance Methods

Emissions from baghouses and cyclones associated with DuPont's process equipment are subject to PM limits contained in *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

Applicable limits for visible emissions from the baghouses and cyclones are contained in 06-096 C.M.R. ch. 101. However, the following BPT limit has been established and determined to be more stringent than the limit contained in 06-096 C.M.R. ch. 101. Streamlining to the BPT limit has been requested.

Visible emissions from any general process source, including baghouses and cyclones, shall not exceed 20% opacity on a six-minute block average basis. Compliance with

this visible emission limit shall be demonstrated in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 upon request by the Department.

2. Periodic Monitoring

DuPont shall monitor and record the following periodic monitors for Process PM emissions:

a. Records of monthly inspections of each baghouse and cyclone.
b. Records of any baghouse or cyclone malfunction and all maintenance activities.

3. Parameter Monitors

DuPont shall operate bag leak detectors on all of the baghouses listed above. The bag leak detectors shall be operated continuously and records maintained indicating the date and time of any alarms and resulting corrective actions. These monitors are included in DuPont's CAM plan.

I. IPA Storage Tanks

DuPont operates two tanks larger than 10,000 gallons (i.e., not insignificant units per 06-096 C.M.R. ch. 140, Appendix B) that store IPA or solutions with high concentrations of IPA.

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, 40 C.F.R Part 60, Subpart Kb is applicable to tanks which store VOC liquids and are larger than 75 cubic meters (19,813 gallons). DuPont operates one IPA tank with a capacity of 35,000 gallons. However, this regulation does not apply to tanks less than 151 cubic meters (39,900 gallons) that store liquids with a true vapor pressure less than 15.0 kPa. IPA has a vapor pressure of approximately 4.4 kPa. Therefore, 40 C.F.R. Part 60, Subpart Kb is not applicable to any tanks at DuPont.

J. Ethylene Oxide Usage

DuPont uses Ethylene Oxide (EtO), a VOC and HAP, in the Agarose Process for the productions of Agarose products with certain specifications. The EtO is used in the production of the Agarose gel itself and not as a cleaning/sterilization agent. The EtO adds a hydroxyl group to the Agarose molecule which changes the physical properties (e.g. strength and melting point) of the Agarose gel produced. It is assumed that 100% of the EtO used is consumed in the process. This process is therefore considered an insignificant activity.

DuPont is not subject to *Ethylene Oxide Emissions Standards for Sterilization Facilities*, 40 C.F.R. Part 63, Subpart O as DuPont does not use EtO for sterilization or fumigation of materials, and therefore does not meet the definition of Sterilization Facility.

K. Facility Annual Emissions

1. Total Annual Emissions

For the following listed emissions units, DuPont is licensed to emit the following annual emissions based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- Firing of 1,400,000 MMBtu/year of fuel in the boilers and the higher emission factor for either distillate fuel or natural gas;
- Operating each emergency generator for 100 hr/year; and
- A VOC limit of 426.0 tpy from process equipment.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**
Boilers	56.0	56.0	352.5	140.0	57.1	3.7
EU#23 B5 Generator	–	–	–	1.0	0.3	–
EU#26 B15 Generator	–	–	–	0.3	0.1	–
EU#27 B2 Generator	–	–	–	1.0	0.3	–
Process VOC	–	–	–	–	–	426.0
Total TPY	**56.0**	**56.0**	**352.5**	**142.3**	**57.8**	**429.7**

Pollutant	**Tons/year**
Single HAP	9.9
Total HAP	24.9

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100, are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO_2e).

The quantity of CO_2e emissions from this facility is greater than 100,000 tons per year, based on the following:

- the facility's fuel use limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98; and
- global warming potentials contained in 40 C.F.R. Part 98.

As defined in 06-096 C.M.R. ch. 100, any source emitting 100,000 tons/year or more of CO_2e is a major source for GHG. This license includes applicable requirements addressing GHG emissions from this source, as appropriate.

III. AMBIENT AIR QUALITY ANALYSIS

DuPont previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. An additional ambient air quality analysis is not required for this Part 70 License.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-366-70-G-R/A pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to DuPont pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch.

115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 C.M.R. ch. 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 C.M.R. ch. 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 C.M.R. ch. 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; 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 the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee.

Source	Citation	Description	Basis for Determination
Boilers #3, 4, 5	06-096 C.M.R. ch. 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC RACT)	Combustion sources exempt per 06-096 C.M.R. ch. 134 § (1)(C)(4).
Boilers #3, 4, 5	40 C.F.R. Part 60, Subpart Dc	Standards of Performance Small Industrial-Commercial Steam Generating Units	These boilers commenced construction prior to June 9, 1989
Boilers #3, 4, 5	40 C.F.R. Part 63, Subpart DDDDD	NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	Facility is not a major source of HAP
Boilers #3, 4, 5	40 C.F.R. Part 63, Subpart JJJJJJ	NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources	Provided distillate is only fired for periods of gas curtailment, gas supply interruption, or periodic testing on liquid fuel. If distillate is fired for other reasons, the affected boiler(s) could become subject to Subpart JJJJJJ.
EU#23 B5 Generator	06-096 C.M.R. ch.103, § 2(B)(4)(c)	Particulate emission limit for fuel burning equipment > 3.0 MMBtu/hr.	Unit is < 3.0 MMBtu/hr.

[06-096 C.M.R. ch. 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no opening is required if the effective date of the requirement is later than the date on

which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 C.M.R. ch. 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 C.M.R. ch. 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license.
[06-096 C.M.R. ch. 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S. § 347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140.
[06-096 C.M.R. ch. 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 140] **Enforceable by State-only**

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S. § 353-A.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 140]
Enforceable by State-only

(6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 C.M.R. ch. 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license.
[06-096 C.M.R. ch. 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

A. Perform stack testing under circumstances representative of the facility's normal process and operating conditions:

1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring, or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;

2. To demonstrate compliance with the applicable emission standards; or

3. Pursuant to any other requirement of this license to perform stack testing.

B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and

B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design, or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 C.M.R. ch. 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records; make such reports; install, use, and maintain such monitoring equipment; sample such emissions in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe; and provide other information as the Department may reasonably require to determine the licensee's compliance status.
[06-096 C.M.R. ch. 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.
[06-096 C.M.R. ch. 140]

(13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
B. The compliance status;
C. Whether compliance was continuous or intermittent;
D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 C.M.R. ch. 140]

SPECIFIC CONDITIONS

(14) **Boilers #3, #4, and #5**

A. Allowable Fuels

1. Boilers #3, #4, and #5 are licensed to fire natural gas and distillate fuel. [06-096 C.M.R. ch. 115, BACT]

2. Fuel use for Boilers #3, #4, and #5 combined shall not exceed the equivalent of 1,400,000 MMBtu/year for all fuel combined on a 12-month rolling total basis. Compliance shall be demonstrated by records of the quantity of each fuel consumed and calculations converting fuel use to MMBtu. Records shall be kept on a monthly and 12-month rolling total basis. When converting fuel use to MMBtu, DuPont shall use a heating value of 0.14 MMBtu/gallon for distillate fuel and 0.00103 MMBtu/scf, or the actual heat content provided by the supplier, for natural gas. [06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)]

B. Fuel Sulfur Content

1. Prior to July 1, 2018, the distillate fuel fired in the boilers shall have a maximum sulfur content of 0.5% by weight.
[06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)]

2. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm).
[38 M.R.S. § 603-A(2)(A)(3)(a)]

3. Sulfur content compliance shall be demonstrated by fuel delivery receipts if the maximum sulfur content delivered is at or below the sulfur content limits listed above. Fuel records shall indicate the quantity, type, and the percent sulfur of fuel delivered. [06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)]

C. Boiler Emission Limits

1. Emissions from Boiler #3 shall not exceed the following limits when firing natural gas:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.05	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	0.17	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	4.28	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
PM_{10}	4.28	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
SO_2	0.05	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	14.55	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	Federally Enforceable
CO	6.98	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
VOC	0.46	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

2. Emissions from Boiler #3 shall not exceed the following limits when firing distillate fuel:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.08	06-096 C.M.R. ch. 103 § 2(B)(1)(b)	Federally Enforceable
NO_x	0.20	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	6.85	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
PM_{10}	6.85	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
SO_2	43.11	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	17.12	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	Federally Enforceable
CO	3.06	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
VOC	0.12	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

3. Emissions from Boiler #4 shall not exceed the following limits when firing natural gas:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.05	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	0.10	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	2.43	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
PM_{10}	2.43	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
SO_2	0.03	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	4.72	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
CO	3.96	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
VOC	0.26	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

4. Emissions from Boiler #4 shall not exceed the following limits when firing distillate fuel:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.08	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	0.17	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	3.89	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
PM_{10}	3.89	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
SO_2	24.47	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	8.33	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
CO	1.74	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
VOC	0.07	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

5. Emissions from Boiler #5 shall not exceed the following limits when firing natural gas:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.05	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	0.17	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	2.42	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
PM_{10}	2.42	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
SO_2	0.03	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	8.23	06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)	Federally Enforceable
CO	3.95	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
VOC	0.26	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

6. Emissions from Boiler #5 shall not exceed the following limits when firing distillate fuel:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.08	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	0.17	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	3.87	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
PM_{10}	3.87	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
SO_2	24.37	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
NO_x	8.30	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
CO	1.73	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable
VOC	0.07	06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)	Federally Enforceable

D. Visible Emissions

1. If any of DuPont's boilers are firing distillate fuel, the visible emissions from Stack #5-1 shall not exceed 20% opacity on a 6-minute block average basis, except for one 6-minute block average in a 3-hour period of not more than 40% opacity. [06-096 C.M.R. ch. 140, BPT]

2. If only natural gas is being fired in DuPont's boilers, the visible emissions from Stack #5-1 shall not exceed 10% opacity on a 6-minute block average basis. [06-096 C.M.R. ch. 140, BPT]

E. Compliance Methods

1. Compliance with the emission limits listed above for Boiler #3 firing natural gas shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 C.M.R. ch. 140]:

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 5	As requested
	lb/hr		
PM_{10}	lb/hr	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 C.F.R. Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 7E	By December 31, 2018
	lb/hr	40 C.F.R. Part 60, App. A, Method 7E	As requested
CO	lb/hr	40 C.F.R. Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	% opacity on a 6-minute block average basis	40 C.F.R. Part 60, App. A, Method 9	As requested

2. Compliance with the emission limits listed above for Boiler #3 firing distillate fuel and Boilers #4 and #5 firing either fuel shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 C.M.R. ch. 140]:

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 5	As requested
	lb/hr		
PM_{10}	lb/hr	40 C.F.R. Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 C.F.R. Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu	40 C.F.R. Part 60, App. A, Method 7E	As requested
	lb/hr	40 C.F.R. Part 60, App. A, Method 7E	As requested
CO	lb/hr	40 C.F.R. Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	% opacity on a 6-minute block average basis	40 C.F.R. Part 60, App. A, Method 9	As requested

F. DuPont shall perform annual tune-ups on Boilers #4 and #5. [06-096 C.M.R. ch. 138 § 3(L)(1)]

G. Periodic Monitoring

DuPont shall operate and record data from the following periodic monitors for Boilers #3, #4, and #5:

1. Hours of operation of each boiler on a monthly and calendar year total basis. [06-096 C.M.R. ch. 137]
2. Amount of natural gas (scf) fired in each boiler on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)]
3. Amount of distillate fuel (gallons) fired in each boiler on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)]
4. Date, duration (# of hours), and reason (e.g., gas curtailment) for all oil operation in each boiler. [40 C.F.R. § 63.11237]
5. Sulfur content of the distillate fuel fired based on fuel receipts from the supplier. [06-096 C.M.R. ch. 115, BACT (A-366-77-7-A)]

6. The total heat input (MMBtu) for all boilers combined on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BACT (A-366-77-6-A)]
7. Dates of the annual tune-ups for Boilers #4 and #5. [06-096 C.M.R. ch. 138 § 3(L)]
8. Tune-up records for Boilers #4 and #5 including the tune-up procedure, an oxygen/carbon monoxide curve, and optimum excess oxygen setting. [06-096 C.M.R. ch. 138 § 3(L)(2)]

(15) **Emergency Generators**

A. Allowable Operation and Fuels

1. EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator are licensed to fire distillate fuel. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**
2. EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

B. Fuel Sulfur Content

1. The fuel oil sulfur content for EU#23 B5 Generator, shall be limited to 0.0015% sulfur by weight. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**
2. The fuel oil sulfur content for EU#26 B15 Generator shall be limited to 0.0015% sulfur by weight. [06-096 C.M.R. ch. 140, BPT]
3. The fuel oil sulfur content for EU#27 B2 Generator shall be limited to 0.0015% sulfur by weight. [06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)]
4. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)]

C. Emission Standards

1. Emissions from EU#23 B5 Generator shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	06-096 C.M.R. ch. 103 § 2(B)(1)(a)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.72	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R)	**Enforceable by State-only**
PM_{10}	0.72	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R)	**Enforceable by State-only**
SO_2	0.01	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**
NO_x	19.20	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R)	**Enforceable by State-only**
CO	5.10	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R)	**Enforceable by State-only**
VOC	0.54	06-096 C.M.R. ch. 140, BPT (A-366-70-F-R)	**Enforceable by State-only**

2. Emissions from EU#26 B15 Generator shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.18	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	Federally Enforceable
PM_{10}	0.18	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	Federally Enforceable
SO_2	0.01	06-096 C.M.R. ch. 140, BPT	Federally Enforceable
NO_x	6.79	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	Federally Enforceable
CO	1.46	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	Federally Enforceable
VOC	0.54	06-096 C.M.R. ch. 115, BACT (A-366-77-1-M)	Federally Enforceable

3. Emissions from EU#27 B2 Generator shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	06-096 C.M.R. ch. 103 § 2(B)(1)(a)	Federally Enforceable

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.72	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	Federally Enforceable
PM_{10}	0.72	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	Federally Enforceable
SO_2	0.01	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	Federally Enforceable
NO_x	19.20	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	Federally Enforceable
CO	5.10	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	Federally Enforceable
VOC	0.54	06-096 C.M.R. ch. 115, BACT (A-366-77-2-A)	Federally Enforceable

D. Visible Emission Standards

1. Visible emissions from EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator shall each not exceed 20% opacity on a 6-minute block average basis, except for periods of startup at which time work practice standards may be followed. [06-096 C.M.R. ch. 140, BPT]

2. During periods of startup, DuPont shall either comply with the visible emission standards for EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator or follow the following work practice standards. If DuPont elects to comply with work practice standards for a given generator, the work practice standards shall apply to all startups for that generator.

   a. DuPont shall maintain a log (written or electronic) of the date, time, and duration of all engine startups.

   b. The engine shall be operated in accordance with the manufacturer's emission-related operating instructions.

   c. DuPont shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup visible emission limitations apply.

d. The engine, including any associated air pollution control equipment, shall be operated at all times 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 Department 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 unit.

[06-096 C.M.R. ch. 140, BPT]

E. The emergency engines (EU#23 B5 Generator, EU#26 B15 Generator, and EU#27 B2 Generator) shall each meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:

1. DuPont shall meet the following operational limitations for each of the emergency engines:

   a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
   c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   Records shall be maintained documenting compliance with the operational limitations.

   [40 C.F.R. § 63.6603(a) and Table 2(d) and 06-096 C.M.R. ch. 140, BPT]

2. Oil Analysis Program Option

   DuPont has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, DuPont must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R.§ 63.6625(i)]

3. Non-Resettable Hour Meter

   A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

   a. The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f)]

   b. DuPont shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]

5. Operation and Maintenance

   The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or DuPont shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]

6. Startup Idle and Startup Time Minimization

   During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(16) **VOC Emissions from Process Equipment**

A. DuPont shall maintain and operate four wet scrubbers (Scrubber E2501, the Rotary Screen Scrubber, the Agarose Plant Scrubber, and the Pilot Plant Scrubber) for VOC control. The wet scrubbers shall be operated such that facility wide VOC emissions do not exceed 15% of the uncontrolled VOC emissions on a daily basis as demonstrated by monthly calculations which demonstrate the VOC Control Efficiency exceeds 85%. [06-096 C.M.R. ch. 134 § 3(A)(1)]

B. VOC Control Efficiency shall be calculated as follows:

$$\text{VOC Control Efficiency \%} = \frac{\text{Total IPA Usage}^{(1)} - \text{Total VOC Emissions}^{(2)}}{\text{Total IPA Usage}^{(1)}} \times 100$$

Where:

[1] Total IPA Usage is determined by multiplying the total IPA (at 80% concentration) which flows through the system by 0.8 to remove the water fraction.

Total IPA Usage = Total Flow x 0.8

The Total Flow is measured by two flow meters; one for the Hydrocolloids Process and Pilot Plant and one for the Agarose Process.

[2] Total VOC Emissions are determined by calculating the total amount of IPA lost from the process and subtracting the amount of IPA discharged to the wastewater system as follows:

Total VOC Emissions = IPA Lost[3] – IPA Discharged to Wastewater[4]

[3] IPA Lost is determined by taking the number of gallons purchased, at 99% concentration, and adjusting for inventory as follows:

IPA Lost = Gallons IPA Purchased + Beginning Inventory – Ending Inventory

[4] IPA Discharged to Wastewater is determined by daily by use of a flowmeter on the wastewater stream and a gas chromatograph to determine IPA concentration in the wastewater.

[06-096 C.M.R. ch. 134]

C. Periodic Monitoring

DuPont shall operate and record data from the following periodic monitors for Process VOC emissions:

1. IPA purchase records on a monthly and 12-month rolling total basis.
2. Flow (gallons) through the Hydrocolloid Process and Pilot Plant (combined) on a daily and monthly total basis.
3. Calculated IPA usage (gallons) in the Hydrocolloid Process and Pilot Plant (combined) on a daily and monthly total basis.
4. Flow (gallons) through the Agarose Process on a daily and monthly total basis.
5. Calculated IPA usage (gallons) in the Agarose Process on a daily and monthly total basis.
6. Daily IPA concentration composite wastewater analysis.
7. Wastewater discharge flow (gallons) on a daily and monthly total basis.
8. Calculated IPA Discharged to Wastewater (gallons) on a daily and monthly total basis.
9. Calculated Total VOC Emissions from the Hydrocolloid Process, Pilot Plant, and Agarose Process combined on a monthly and 12-month rolling total basis.
10. Calculated VOC Control Efficiency (%) on a monthly basis.
11. Records of monthly inspections of each wet scrubber.
12. Records of any scrubber malfunctions and all maintenance activities.

[06-096 C.M.R. ch. 134]

D. Parameter Monitoring

DuPont shall monitor continuously and record once per shift the scrubber media flow rate (gal/min) for each of the wet scrubbers used to control VOC from the Hydrocolloid Process, Pilot Plant, and Agarose Process. These monitors are included in DuPont's CAM plan. [06-096 C.M.R. ch. 115, BACT (A-366-70-C-A and 40 C.F.R. Part 64]

(17) **PM Emissions from Process Equipment**

A. DuPont shall maintain and operate controls for particulate matter on the following equipment:

Equipment ID	Pollution Control Equipment
#1, Lime Unloading	Baghouse
#3, Weed Cleaning System	Baghouse
#4, Perlite Unloading	Baghouse
#5, Cook Vent Filtration System	Cyclone
#7, Vacuum System for Belt Dryer Area	Baghouse
#8, Grinder Feed System	Baghouse
#9, A44 Grinder System	Baghouse
#10, ACM 60 Grinder System	Baghouse
#11, Tote Dumper System	Baghouse
#12, Blending Product Conveyor System	Baghouse
#13, Blending Area & Vacuum System	Baghouse
#14, Bulk Bag Filling System	Baghouse
#16, Specialty Blender System	Baghouse
#29, Blending & Packaging System	Baghouses
#18, Agarose Grinding Process	Baghouse

[06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

B. Visible emissions from any general process source, including baghouses and cyclones, shall not exceed 20% opacity on a six-minute block average basis. Compliance with this visible emission limit shall be demonstrated in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 upon request by the Department. [06-096 C.M.R. ch. 140, BPT]

C. Periodic Monitoring

DuPont shall monitor and record the following periodic monitors for Process PM emissions [06-096 C.M.R. ch. 140, BPT]:

1. Records of monthly inspections of each baghouse and cyclone.
2. Records of any baghouse or cyclone malfunction and all maintenance activities.

D. Parameter Monitoring

DuPont shall operate bag leak detectors on all of the baghouses. The bag leak detectors shall be operated continuously and records maintained indicating the date and time of any alarms and resulting corrective actions or response. These events are not considered deviations provided DuPont responds to an alarm by either determining that the baghouse did not malfunction (i.e., false alarm) and no corrective action is necessary or by immediately shutting down the process. These monitors are included in DuPont's CAM plan. [40 C.F.R. Part 64]

(18) **Parameter Monitor General Requirements** [06-096 C.M.R. ch. 140 and 117]

A. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by the Department.

B. Parameter monitors required by this license shall continuously monitor data at all times the associated emissions unit is in operation. "Continuously" with respect to the operation of parameter monitors required by this license means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitutes a valid hour.

C. Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the associated emissions unit operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

Enforceable by State-only

(19) **Compliance Assurance Monitoring (CAM) – General Requirements**

A. The licensee shall operate and monitor all emission units and their associated control equipment in accordance with the approved CAM Plan. [40 C.F.R. Part 64]

B. Any excursion shall be reported in semiannual reports. If excursions occur, the licensee must also certify intermittent compliance with the emission limits for the control device monitored in the annual compliance certification. [40 C.F.R. Part 64]

C. Upon detecting an excursion, the licensee shall restore normal operation of the control equipment as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 C.F.R. § 64.7(d)]

D. Prior to making any changes to the approved CAM plan, the licensee shall notify the Department and, if necessary, submit a proposed license modification application to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. A license amendment application is required only if a change would be inconsistent with the terms of this license or if otherwise required by 06-096 C.M.R. ch. 140. [40 C.F.R. § 64.7(e)]

E. Any change of the target level shall be submitted in a letter to the Department for written approval. [06-096 C.M.R. ch. 140, BPT]

(20) **Semiannual Reporting** [06-096 C.M.R. ch. 140]

A. The licensee shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date.
C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.
D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(21) **Annual Compliance Certification**

DuPont shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31st of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other

reasonably available information such as the design of the equipment or applicable emission factors. [06-096 C.M.R. ch. 140]

(22) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, the licensee shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted by the date specified in 06-096 C.M.R. ch. 137.

(23) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 C.M.R. ch. 102	Open Burning	-
06-096 C.M.R. ch. 109	Emergency Episode Regulation	-
06-096 C.M.R. ch. 110	Ambient Air Quality Standard	-
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques	-
38 M.R.S. § 585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(24) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 C.F.R. Part 82, Subpart F]

(25) **Asbestos Abatement**

When undertaking Asbestos abatement activities, DuPont shall comply with the *Standard for Asbestos Demolition and Renovation*, 40 C.F.R. Part 61, Subpart M.

(26) **Expiration of a Part 70 license**

A. DuPont shall submit a complete Part 70 renewal application at least six but no more than 18 months prior to the expiration of this air license.

B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 C.M.R. ch. 140 prior to the

expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(27) **New Source Review**

DuPont is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-366-70-G-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 31 DAY OF January , 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PAUL MERCER, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted at least six but no more than 18 months prior to expiration of the facility's Part 70 license, then pursuant to Title 5 M.R.S. §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/20/14
Date of application acceptance: 3/20/14

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

Filed
JAN 31 2018
State of Maine
Board of Environmental Protection