PERMIT AMENDMENT NO. 2821-245-0126-V-05-3
ISSUANCE DATE:

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality - Part 70 Operating Permit Amendment

Facility Name:	**Solvay Specialty Polymers USA, LLC**
Facility Address:	**3702 Clanton Road** **Augusta, Georgia 30906 Richmond County**
Mailing Address:	**3702 Clanton Road** **Augusta, Georgia 30906**
Parent/Holding Company:	**Solvay Specialty Polymers USA, LLC**
Facility AIRS Number:	**04-13- 245-00126**

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:
The installation of additional equipment for the manufacture of industrial polymer (Verian) within the existing Xydar unit.

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Amendment and Permit No. 2821-245-0126-V-05-0. Unless modified or revoked, this Amendment expires upon issuance of the next Part 70 Permit for this source. This Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in App No. 198021 dated December 15, 2017; any other applications upon which this Amendment or Permit No. 2821-245-0126-V-05-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **6** pages.

STATE OF GEORGIA
CONSTITUTION
WISDOM
JUSTICE
MODERATION
1776

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Richard E. Dunn, Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

Application No. 198021 was submitted for the purpose of installing additional equipment for the manufacture of industrial polymer (Verian) within the existing Xydar unit.

The production of Verian polymer is carried out by a 4-step process. First, a raw material is processed via evaporation. The resulting material and other additives are then sent to a reaction vessel. The reaction of liquid and additives is completed in a batch reactor. The material from the batch reactors is transferred to a crystallization system that allows the polymer to form as a solid. The polymer is then transferred to the final product handling system as a pellet and stored in Gaylord boxes.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
XYDAR / VERIAN PROCESS					
00P1	Hot Oil Heater H-601	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 63 Subpart DDDDD	3.2.1 through 3.2.3, 3.2.25 through 3.2.27, 3.4.3, 3.4.4, 3.5.6, 6.1.7, 6.2.6, 6.2.7, 6.2.10, 6.2.11	None	None
00P2	Hot Oil Heater H-603	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 63 Subpart DDDDD	3.2.1 through 3.2.3, 3.2.25 through 3.2.27, 3.4.3, 3.4.4, 3.5.6, 6.1.7, 6.2.6, 6.2.7, 6.2.10, 6.2.11	None	None
00P3	Boiler H-602	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 63 Subpart DDDDD	3.2.1 through 3.2.3, 3.2.25 through 3.2.27, 3.4.3, 3.4.4, 3.5.6, 6.1.7, 6.2.6, 6.2.7, 6.2.10, 6.2.11	None	None
00P4	Boiler H-604	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 63 Subpart DDDDD	3.2.1 through 3.2.3, 3.2.25 through 3.2.27, 3.4.3, 3.4.4, 3.5.6, 6.1.7, 6.2.6, 6.2.7, 6.2.10, 6.2.11	None	None
~~**0X2E**~~ **RX01**	Reactors R-201 A/B/C	391-3-1-.02(2)(b) 391-3-1-.01(2)(e) 40 CFR 63 Subpart FFFF **(Xydar Only)**	3.3.7, 3.3.8, 3.3.9, 3.4.1, 3.4.2, 3.5.2, 5.2.2, 6.1.7, 6.2.22, 6.2.23, 6.2.24	0X2T	Caustic Scrubber T-701
0X2G	Mixer R-202A	391-3-1-.02(2)(b) 391-3-1-.01(2)(e) 40 CFR 63 Subpart FFFF **(Xydar Only)**	3.3.7, 3.3.8, 3.3.9, 3.4.1, 3.4.2, 3.5.2, 5.2.2, 6.1.7, 6.2.22, 6.2.23, 6.2.24	0X2T 0X2U	Caustic Scrubber T-701 Venturi Scrubber ME-252A
0X2H	Mixer R-202B	391-3-1-.02(2)(b) 391-3-1-.01(2)(e) 40 CFR 63 Subpart FFFF **(Xydar Only)**	3.3.7, 3.3.8, 3.3.9, 3.4.1, 3.4.2, 3.5.2, 5.2.2, 6.1.7, 6.2.22, 6.2.23, 6.2.24	0X2T 0X2V	Caustic Scrubber T-701 Venturi Scrubber ME-252B
0X2I	Mixer R-202C	391-3-1-.02(2)(b) 391-3-1-.01(2)(e) 40 CFR 63 Subpart FFFF **(Xydar Only)**	3.3.7, 3.3.8, 3.3.9, 3.4.1, 3.4.2, 3.5.2, 5.2.2, 6.1.7, 6.2.22, 6.2.23, 6.2.24	0X2T 0X2W	Caustic Scrubber T-701 Venturi Scrubber ME-252C
~~**0X2J**~~ **RM01** **RM02** **RM03**	Raw Material Super Sack Unloading V109, V110, V111	391-3-1-.01(2)(n) 40 CFR 63 Subpart FFFF **(Xydar Only)**	3.3.7, 3.3.8, 3.3.9, 3.5.1, 6.2.22, 6.2.23, 6.2.24	0X1P	Baghouse F-146

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

3.2 Equipment Emission Caps and Operating Limits

NEW CONDITION

3.2.7. The Permittee shall not discharge or cause the discharge into the atmosphere any gases which contain 100 tons or more of CO emissions per consecutive 12-month period.
[40 CFR 52.21 Avoidance]

3.4 Equipment SIP Rule Standards

MODIFIED CONDITION

3.4.1 The Permittee shall not cause, let, suffer, permit, or allow emissions of any gases which exhibit forty percent (40%) opacity or greater from any of the following listed sources:
[391-3-1-.02(2)(b)]

Source Code	Process Unit	Equipment
0A15	Amodel	Flare KB-807
0A6D	Amodel	Extruder KM-601
0A2B	Amodel	Mix Tank KD-260
0C4D	Sulfone	Reactor LR-401
0C1E	Sulfone	Tank LD-101
RX01	Xydar/Verian	Reactors R-201 A/B/C
0X2G	Xydar	Mixer R-202A
0X2H	Xydar	Mixer R-202B
0X2I	Xydar	Mixer R-202C
00C2	Udel	Udel Thermal Oxidizer
0U4D	Udel	Reactor PR-401

MODIFIED CONDITION

3.4.2 The Permittee shall not cause, let, suffer, permit, or allow the rate of emissions of particulate matter from the equipment listed below in total quantities equal to or exceeding the allowable rates calculated using the following equations:
[391-3-1-.02(2)(e)]

$E = 4.1P^{0.67}$, for process input weight rate up to and including 30 tons per hour;

$E = 55P^{0.11} - 40$, for process input weight rates above 30 tons per hour.
Where:
E = emission rate in pounds per hour
P = process input weight rate in tons per hour

Source Code	Process Unit	Equipment
0A2B	Amodel	Mix Tank KD-260
RX01	Xydar/Verian	Reactors R-201 A/B/C
0X2G	Xydar	Mixer R-202A
0X2H	Xydar	Mixer R-202B
0X2I	Xydar	Mixer R-202C
HE-1	Jupiter	HCl Storage Tank PF-800
HE-2	Jupiter	Process Reactor PF-200
DE-4	Jupiter	HQ Unloading Station PM-250
DE-8	Jupiter	DFBP and HQ Conveying PH-245 & PH-255
DE-11	Jupiter	HQ Storage and mix monomer bin vent PF252 & PF-260
FD02	PUSH	Mix tank FD-1210
FD05	PUSH	Reactor FR-100
FD19	PUSH	Polymer Dryer FD-600

PART 4.0 REQUIREMENTS FOR TESTING

4.1 General Testing Requirements

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 are as follows:

[NEW PARAGRAPH]
p. Method 10 for the determination of CO emissions.

4.2 Specific Testing Requirements

NEW CONDITION
4.2.4 Within 180 days after the startup of the Verian Process, the Permittee shall conduct performance testing for CO emissions, as vented through the Caustic Scrubber (Source Code 0X2T). The Permittee shall use the tests to establish emission factors for use in demonstrating compliance with Condition 3.2.7.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.2 Specific Record Keeping and Reporting Requirements

MODIFIED CONDITION

6.2.10 The Permittee shall submit the following reports with the semiannual report required by Condition 6.1.4:
[40 CFR 60.48c(d) and (e)][391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

c. A report of the monthly and 12-month rolling VOC, NO_X, SO_2, **and CO emissions. For calculating CO emissions, the facility shall maintain records of all fuel fired at the facility during the month and the amount of Verian polymer produced during the month. Total monthly CO emissions shall be calculated based on the combustion/production data and the emission factor established in accordance with Condition 4.2.4. The monthly emissions shall be used to calculate the 12-month rolling total CO emissions. New 12-month totals shall be calculated at the end of each calendar month.**

Attachments

B. Insignificant Activities Based on Emission Levels

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
JF-111 Raw Material Storage Tank	1
JE-114 Evaporator Reflux Condenser	1
JF-115 Evaporator Storage Tank	1
JD-116 Waste Water Vessel	1
JE-116 Evaporator Total Condenser	1
JM-121/122 Unloading Stations	2
JME-121/122 Screw Conveyors	2
JF-123 Additive Tank	1
JE-226/227/228 De-Sublimators	3
JD-301 Pre-Polymer Hold Tank	1
JD-501 Cleaning Solution Vessel	1
JME-402A/B Vibrating Feeder	1
JH-403A/B Guard Filter	1
JC-402A/B Transfer Blower	1
JME-302 Pelletizer/Belt Cooler	1
JME-306 Crystallizer/Pellet Cooler	1
JH-306 Crystallizer/Pellet Cooler Condenser	1
JH-402A/B Pellet Separator	1
JD-402A/B Pellet Storage Bin	1