

# Fact Sheet



## For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-05300054-2022**  
Application Received: **April 26, 2021 (renewal) and November 19, 2021 (MM02)**  
Plant Identification Number: **03-054-05300054**  
Permittee: **APG Polytech, LLC**  
Facility Name: **Apple Grove**  
Mailing Address: **State Route 2, Apple Grove, WV 25502**

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Physical Location: Apple Grove, Mason County, West Virginia  
UTM Coordinates: 397.86 km Easting • 4,279.97 km Northing • Zone 17  
Directions: WV Route 2, approximately thirteen miles south of Point Pleasant and thirty miles north of Huntington, WV.

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### Facility Description

APG Polytech, LLC manufactures polyester resin and handles the final product in bagging/packaging, storage, and loading facilities. Infrastructure and support facilities are also located at the site and include boilers, wastewater treatment, warehouses, maintenance shops, and laboratories. SIC code: 2821.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions<sup>1</sup></b>	<b>2020 Actual Emissions<sup>2</sup></b>
Carbon Monoxide (CO)	36.24	20.07
Nitrogen Oxides (NO <sub>x</sub> )	67.55	28.94
Particulate Matter (PM <sub>2.5</sub> )	8.97	5.65
Particulate Matter (PM <sub>10</sub> )	8.97	5.65
Total Particulate Matter (TSP)	8.97	5.65
Sulfur Dioxide (SO <sub>2</sub> )	10.21	0.58
Volatile Organic Compounds (VOC)	59.31	42.53

*PM<sub>10</sub> is a component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions<sup>1</sup></b>	<b>2020 Actual Emissions<sup>2</sup></b>
Ethylene Glycol	26.19	13.54
Acetaldehyde	8.35	4.40
1,4-Dioxane	0.69	0.27
HCl	2.72	0
Arsenic Compounds	< 0.01	< 0.01
Beryllium Compounds	< 0.01	< 0.01
Cadmium Compounds	< 0.01	< 0.01
Chromium Compounds	< 0.01	< 0.01
Cobalt Compounds	< 0.01	< 0.01
Lead Compounds	< 0.01	< 0.01
Manganese Compounds	< 0.01	< 0.01
Mercury Compounds	< 0.01	< 0.01
Nickel Compounds	< 0.01	< 0.01
Selenium Compounds	< 0.01	< 0.01
Aggregate HAPs	37.96	18.21

*Some of the above HAPs may be counted as PM or VOCs.*

<sup>1</sup> Potential Emissions after MM02 (see Determinations and Justifications section (item 2) for more details)

<sup>2</sup> Actual emissions data for all pollutants is from the State and Local Emissions Inventory System (SLEIS).

### Title V Program Applicability Basis

This facility has the potential to emit 26.19 tpy of Ethylene Glycol and 37.96 tpy of aggregate HAPs. Due to this facility's potential to emit over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, APG Polytech, LLC's Apple Grove facility is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

### Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Particulate matter and opacity limits for indirect heat exchangers.
	45CSR6	Open burning prohibited.
	45CSR7	Particulate matter and opacity limits for manufacturing sources.
	45CSR10	Sulfur dioxide limits.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction/modification permits
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR16	Standards of Performance for New Stationary Sources pursuant to 40 C.F.R. Part 60.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
	40 C.F.R. Part 61	Asbestos inspection and removal.
	40 C.F.R. 63, Subpart FFFF	Miscellaneous Organic Chemical Manufacturing (MON) MACT.
	40 C.F.R. 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
	40 C.F.R. 63, Subpart DDDDD	Boilers and Process Heaters MACT
	40 C.F.R. 63, Subpart JJJ	Polymers and Resins IV MACT.
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances.
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-1650U	March 8, 2022	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

**Determinations and Justifications**

Since the previous Title V permit renewal was approved on October 24, 2016, the following changes took place:

- 1) MM01 (issued May 22, 2020) - based on R13-1650S to remove CSS-7 from the permit; to increase the rates of CSS-12 and CSS-13 because of market requirements; and to include various other changes and corrections identified in the preparation of the Title V permit renewal application in 2015.
- 2) MM02 (included in this Title V permit renewal) - based on R13-1650U to allow for increased production rates on CP3 and CP4 production lines in requirement 4.1.1; to add missing equipment, and remove equipment (Emission Units Table 1.1 was revised); to revise emission limits (tables in requirement 4.1.11 were revised); to restart the CSS-7 production line that was shut down in place (per R13-1650S) and include the CSS-7 equipment units, production rate limits and emission limits in the Emission Units Table 1.1, requirement 4.1.1 and Table 4.1.11.c (respectively). Also, the facility added an alternative operating scenario to allow the permitted control devices on CP4 to serve as backup for CP3 at reduced rates “in the event that one of these heaters shuts down allowing the waste gases to be directed to the heater that is operating” (new requirement 4.1.5 and a recordkeeping requirement 4.4.17 were added).

This modification resulted in the following potential emission changes for the facility:

Regulated Pollutants	Potential Emissions before MM02	PTE Changes under MM02	Potential Emissions after MM02
Carbon Monoxide (CO)	32.76	+ 3.48	36.24
Nitrogen Oxides (NO <sub>x</sub> )	60.17	+ 7.38	67.55
Particulate Matter (PM <sub>2.5</sub> )	7.56	+ 1.41	8.97
Particulate Matter (PM <sub>10</sub> )	7.56	+ 1.41	8.97
Total Particulate Matter (TSP)	7.56	+ 1.41	8.97
Sulfur Dioxide (SO <sub>2</sub> )	10.12	+ 0.09	10.21
Volatile Organic Compounds (VOC)	53.72	+ 5.59	59.31

Hazardous Air Pollutants	Potential Emissions before MM02	PTE Changes under MM02	Potential Emissions after MM02
Ethylene Glycol	23.19	+ 3.00	26.19
Acetaldehyde	7.33	+ 1.02	8.35
1,4-Dioxane	0.69	0	0.69
HCl	2.72	0	2.72
Arsenic Compounds	< 0.01	+ < 0.01	< 0.01
Beryllium Compounds	< 0.01		< 0.01
Cadmium Compounds	< 0.01		< 0.01
Chromium Compounds	< 0.01		< 0.01
Cobalt Compounds	< 0.01		< 0.01
Lead Compounds	< 0.01		< 0.01
Manganese Compounds	< 0.01		< 0.01
Mercury Compounds	< 0.01		< 0.01
Nickel Compounds	< 0.01		< 0.01
Selenium Compounds	< 0.01		< 0.01
Aggregate HAPs	33.93	+ 4.03	37.96

- Section 4.0 - newly added Small Boilers [Emission Unit IDs UGS-B-3010, UGS-B-3011, UGS-B-4010, UGS-B-4011] and Space Heaters [Emission Unit IDs U2S-B-1073 through -1077] are subject to the applicable requirements of 45CSR§2-3.1 and emission limits under condition 4.1.11. Since there were no limits and requirements included in R13-1650U for these units other than the emission limits in condition 4.1.11, condition 4.1.8 (similar to the existing permit requirement 4.1.9 applicable to the identical equipment) was included to limit the maximum designed heat input rates, the type of fuel consumed, and to include the 45CSR§2-3.1 opacity limit. Also, monitoring requirement 4.2.6 and recordkeeping requirement 4.4.18 (similar to the existing permit requirements 4.2.2 and 4.4.4 applicable to the identical equipment) were included to require monitoring and recordkeeping of the fuel consumption.

Small Boilers [Emission Unit UGS-B-3010, UGS-B-3011, UGS-B-4010, UGS-B-4011] and Space Heaters [Emission Unit IDs U2S-B-1073 through -1077] are all comfort heaters. The definition of *Process heater* in §63.7575 states that “Process heaters do not include units used for comfort heat...” Further, these units do not meet the definition of a boiler. Since the units do not meet the definitions of the units affected by this subpart, these emission units are **not subject to requirements in 40 C.F.R. 63 Subpart DDDDD**.

- Vacated sections of 40 C.F.R. §§63.6640(f)(2)(ii) and (iii) (requirements 4.1.24(j)(1)(ii)(B) and (C), and 4.1.24(k)) and §63.6650(h) (requirement 4.5.7) were removed.

5. There were changes to the 40 C.F.R. 63, Subpart FFFF Miscellaneous Organic Chemical Manufacturing (MON) MACT on August 12, 2020, but it didn't change any of the APG Polytech, LLC's Apple Grove facility applicable requirements included under conditions 4.5.4 (based on 40 C.F.R. §63.2445(d)) and 4.5.5 (40 C.F.R. §63.2520(e)(10)).

### Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. 40 C.F.R. 60, Subpart D – “Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971.” This subpart applies to each steam generating unit that commences construction or modification after August 17, 1971 and has a heat input capacity of more than 250 MMBtu/hr. APG Polytech does not have any steam generating units with a heat input capacity of more than 250 MMBtu/hr.
- b. 40 C.F.R. 60, Subpart Db – “Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.” This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984 and has a heat input capacity of greater than 100 MMBtu/hr. APG Polytech does not have any steam generating units with a heat input capacity of more than 100 MMBtu/hr.
- c. 40 C.F.R. 60, Subpart E – “Standards of Performance for Incinerators.” This subpart applies to each incinerator of more than 50 tons per day charging rate. An incinerator is defined by 40 C.F.R. §60.51 as any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter. The Apple Grove Plant does not operate a solid waste incinerator as defined by this rule.
- d. 40 C.F.R. 60, Subpart K - “Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.” There are no petroleum liquid storage tanks at the Apple Grove Plant with a storage capacity greater than 151,412 liters (40,000 gallons), constructed, reconstructed, or modified after June 11, 1973 and prior to May 19, 1978.
- e. 40 C.F.R. 60, Subpart Ka - “Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.” There are no petroleum liquid storage tanks at the Apple Grove Plant with a storage capacity greater than 151,416 liters (40,000 gallons) for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984.
- f. 40 C.F.R. 60, Subpart Kb - “Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.” 40 C.F.R. 60, Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (19,813 gallons) that is used to store volatile organic liquids (VOC) for which construction, reconstruction, or modification is commenced after July 23, 1984. Based on the applicability criteria of 40 C.F.R. §60.110b(a), only the CP4 EG Storage Tank (C4Y-F-1800) is subject to the requirements of this subpart. In accordance with 40 C.F.R. §60.110b(b), the subpart does not apply to storage vessels with a capacity greater than or equal to 151 cubic meters (39,890 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kPa. Since the CP4 EG Storage Tank (C4Y-F-1800) has a capacity of 675,000 gallons and a maximum true vapor pressure of less than 1 kPa, it is exempt from the requirements of 40 C.F.R. 60, Subpart Kb.

- g. 40 C.F.R. 60, Subpart O – “Standards of Performance for Sewage Treatment Plants.” The Apple Grove Plant does not operate an incineration unit or boiler to burn sludge from a municipal sewage treatment plant.
- h. 40 C.F.R. 60 Subpart VV - “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006.” The Apple Grove Plant does not produce as intermediates or final products any of the materials listed in 40 C.F.R. §60.489.
- i. 40 C.F.R. 60 Subpart DDD - “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.” Since APG Polytech is subject to the requirements of 40 C.F.R. 63, Subpart JJJ, they are no longer subject to the requirements of 40 C.F.R. 60, Subpart DDD as specified in 40 C.F.R. §§63.1311(i)(1) and 63.1316(b).
- j. 40 C.F.R. 60, Subpart III – “Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes. The Apple Grove Plant does not produce any of the chemicals listed in 40 C.F.R. §60.617 as a product, co-product, by-product, or intermediate.
- k. 40 C.F.R. 60 Subpart NNN - “Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.” The Apple Grove Plant does not have a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate.
- l. 40 C.F.R. 60 Subpart RRR - “Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.” The Apple Grove Plant does not have a process unit that produces any of the chemicals listed in 40 C.F.R. §60.707 as a product, co-product, by-product, or intermediate.
- m. 40 C.F.R. 63, Subpart G – “National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater. 40 C.F.R. 63, Subparts F, G, and H do not apply to manufacturing process units that do not meet the criteria in 40 C.F.R. §§ 63.100 (b) (1), (b) (2), and (b) (3). The Apple Grove Plant does not meet the applicability criteria and is only subject to the requirements of 40 C.F.R. 63, Subpart G as they apply under 40 C.F.R. 63, Subpart JJJ.
- n. 40 C.F.R. 63, Subpart I – National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks. The Apple Grove Plant is subject to the requirements of 40 C.F.R. 63, Subpart JJJ. 40 C.F.R. §63.1311(g)(1) states that after the compliance dates specified in 40 C.F.R. 63, Subpart JJJ, an affected source also subject to 40 C.F.R. 63, Subpart I is required to comply only with the provisions of Subpart JJJ and is no longer subject to Subpart I.
- o. 40 C.F.R. 63, Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). Table 1 constituents present are acetaldehyde, 1,4-dioxane, and ethylene glycol. Acetaldehyde and 1,4-dioxane are present only in impurity quantities in recupic. Those vessels containing recupic are already subject to 40 C.F.R. 63, Subpart JJJ, and according to 40 C.F.R. §63.2338(c)(1) are not subject to 40 C.F.R. 63, Subpart EEEE. Those sources containing ethylene glycol are not subject to 40 C.F.R. 63, Subpart EEEE because ethylene glycol has an annual average true vapor of less than 0.7 kilopascals (0.1 psia) and is therefore not defined as an organic liquid under 40 C.F.R. §63.2406.

- p. 40 C.F.R. 60 Subpart III – “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”. APG Polytech’s emergency generator engine DGM-U-1010 is not subject to this subpart because it was constructed/installed in 2004/2005, which is prior to the applicability date in 40 C.F.R §60.4200(a)(2). The #1 and #2 Diesel Fire Pump engines UTF-G-1020A and U3F-G-1710 were constructed/installed prior to the applicability date in 40 C.F.R §60.4200(a)(2) and have not been modified or reconstructed after the date in 40 C.F.R §60.4200(a)(3); therefore, this subpart is not applicable.
- q. 40 C.F.R. Part 64 – Compliance Assurance Monitoring. While the permittee utilizes control devices to meet emission limitations, no emission unit has pre-control device potential emissions greater than the major source threshold for the respective pollutants. Since none of the emission units meet the applicability criterion at 40 C.F.R. §64.2(a)(3), CAM is not applicable.

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: March 10, 2022  
Ending Date: April 11, 2022

### **Point of Contact**

All written comments should be addressed to the following individual and office:

Natalya V. Chertkovsky-Veselova  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
304/926-0499 ext. 41250  
natalya.v.chertkovsky@wv.gov

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

Not applicable.