



The Chemours Company
Washington Works
8480 DuPont Road
PO Box 1217
Washington, WV 26181

304-863-4000
chemours.com

May 18, 2016

CERTIFIED MAIL – 7014 1820 0001 2876 2083
RETURN RECEIPT REQUESTED

Mr. W. F. Durham, Director
Division of Air Quality
WV Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304-2345



COVER DOCUMENT FOR CONFIDENTIAL INFORMATION
Chemours Washington Works

Area C1 – Permit R13-2365H Update

Dear Mr. Durham:

In accordance with 45CSR31 sections 3.2 and 3.3, this letter serves as the cover document for confidential information being submitted this date by Chemours to the Office of Air Quality [OAQ] pertaining to the subject file/matter. The “Claimed Confidential” process rate data used in this process and contained in the documents and test report should permanently be maintained in a confidential file until declassified by Chemours. Section 10, Article 5, Chapter 22 of the West Virginia Code, as amended, allows the designation of documents as confidential.

The confidential section contains calculations and equipment rates and capacities in the permit application that are being claimed confidential.

The reason for confidentiality of the submitted pages, required by Section 4.1(e)(1) are detailed in the attachment using the following numbered explanation:

1. Process rates - Disclosure of this information would be harmful to the business in three areas - competitive advantage, cost advantage, and technological advantage - all three are important to the continued financial health, and future survival, of the business.
2. Ingredients – Disclosure of this information would cause harm because these allow the product to exhibit specific properties that differentiate it, and make it superior, from a competitive standpoint.
3. Process technology - Disclosure of this information would compromise competitive advantage since it describes the interaction of the various unit.

To satisfy the requirements specified in Section 4.1.b, we are stating that the information claimed as confidential is not available to the general public and it is not reasonably obtainable within Chemours without the consent of a business manager. All employees are aware of the competitive nature of their businesses and are trained in the guarding of confidential information. When printed, the information has a cover indicating it is confidential and the pages within are so stamped. When such documents are handled internally, they must be kept under the person's control and not left unattended in full view. Access to confidential documents is limited to those personnel with a "need-to-know". A Corporate program, PIP - [Proprietary Information Protection] - is used to raise the awareness of personnel for the handling and disclosure of confidential information. This program is documented in the "Corporate Proprietary Information Protection Program Guide" produced by the Chemours Information Asset Management group for internal use.

To maintain the confidentiality of such information as required by Section 4.1.c, Chemours employees involved with confidential information such as flow sheets, calculations, stream concentrations, ingredients, and equipment design or capacity sign a confidentiality agreement as stipulated by Chemours legal advisors. Transmission of such information is sent by courier, certified mail, or secure [encrypted] electronic systems, with common electronic transmission restricted to avoid interception of the information by competitor or foreign governments.

There is no statute that has been reviewed that requires the disclosure of information claimed as confidential.

The confidential information designee who can be contacted about the information is the undersigned.

If you have questions or need additional information concerning the claim of confidentiality, please contact me at (304) 863-4448.

Very truly yours,



Alison A. Crane
Environmental Leader
Chemours Washington Works

Enclosure
AAC:jjm/slb

**Regulation 13 Permit
R13-2365H Permit Amendment Application
Confidential Pages and Reasons for Confidentiality**

Page Number	Reason for Confidentiality
26 - 28	1, 3
30	1, 3
35	1, 3
39 - 45	1, 2, 3

Reasons for Confidentiality (as per 45CSR 31, Section 4.1(e)(1)):

- 1) Process rate - Disclosure of this information would be harmful to the business in three areas -competitive advantage, cost advantage, and technological advantage - all three are important to the continued financial health, and future survival, of the business.

- 2) Ingredients - Disclosure of this information would cause harm because these allow the product to exhibit specific properties that differentiate it, and make it superior, from a competitive standpoint.

- 3) Process technology - Disclosure of this information would compromise competitive advantage since it describes the interaction of the various unit operations involved in the manufacture of a proprietary, marketable product.



WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office):
The Chemours Company FC, LLC

2. Federal Employer ID No. (FEIN):
46-5626518

3. Name of facility (if different from above):
Washington Works Facility

4. The applicant is the:
 OWNER OPERATOR BOTH

5A. Applicant's mailing address:
Building 1, Washington Works
Washington WV, 26181-1217

5B. Facility's present physical address:
8480 DuPont Road
Washington, WV 26181

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? YES NO

- If YES, provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A**.
- If NO, provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A**.

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, or have an option to buy or otherwise have control of the *proposed site*? YES NO

- If YES, please explain: Owns site
- If NO, you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated or temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): Chemical Manufacturing

10. North American Industry Classification System (NAICS) code for the facility:

325199

11A. DAQ Plant ID No. (for existing facilities only):
107-00182

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
R13-2365H, R13-3223, R30-107-00182-2016 Segment 2
of 14

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.		
<ul style="list-style-type: none"> – For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. 		
Take the Route 50 bypass towards Ohio from I-77. Exit the Route 50 bypass at the last exit in West Virginia. At the light turn left and continue on DuPont road for approximately ½ - ¾ mile. The main Chemours plant entrance will be visible on your right.		
12.B. New site address (if applicable): N/A	12C. Nearest city or town: Parkersburg	12D. County: Wood
12.E. UTM Northing (KM): 4346833.1	12F. UTM Easting (KM): 442376.7	12G. UTM Zone: 17S
13. Briefly describe the proposed change(s) at the facility: This permit amendment is intended to remove certain equipment that are no longer in service or no longer emit regulated air pollutants. This amendment calls attention to permit references that must be changed; it also seeks to modify language regarding visible emission observations.		
14A. Provide the date of anticipated installation or change: – If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: 07/01/2016		14B. Date of anticipated Start-Up if a permit is granted: 07/10/2016
14C. Provide a Schedule of the planned Installation of/Change to and Start-Up of each of the units proposed in this permit application as Attachment C (if more than one unit is involved).		
15. Provide maximum projected Operating Schedule of activity/activities outlined in this application: Hours Per Day 24 Days Per Week 7 Weeks Per Year 52		
16. Is demolition or physical renovation at an existing facility involved? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
17. Risk Management Plans. If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your Risk Management Plan (RMP) to U. S. EPA Region III.		
18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (<i>if known</i>). Provide this information as Attachment D .		
Section II. Additional attachments and supporting documents.		
19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).		
20. Include a Table of Contents as the first page of your application package.		
21. Provide a Plot Plan , e.g. scaled map(s) and/or sketch (es) showing the location of the property on which the stationary source(s) is or is to be located as Attachment E (Refer to Plot Plan Guidance) – Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).		
22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F .		
23. Provide a Process Description as Attachment G . – Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).		
<i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i>		
24. Provide Material Safety Data Sheets (MSDS) for all materials processed, used or produced as Attachment H . – For chemical processes, provide a MSDS for each compound emitted to the air.		
25. Fill out the Emission Units Table and provide it as Attachment I .		
26. Fill out the Emission Points Data Summary Sheet (Table 1 and Table 2) and provide it as Attachment J .		

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
<input checked="" type="checkbox"/> General Emission Unit, specify - Dryer		

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

<input type="checkbox"/> Absorption Systems	<input checked="" type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<input type="checkbox"/> Other Collectors, specify		

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES **NO**

➤ If **YES**, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's **"Precautionary Notice – Claims of Confidentiality"** guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

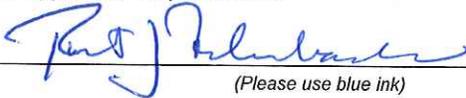
Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE _____


(Please use blue ink)

DATE: _____

May 20, 2016
(Please use blue ink)

35B. Printed name of signee: Robert J. Fehrenbacher

35C. Title: Plant Manager

35D. E-mail:
robert.j.fehrenbacher@chemours.com

36E. Phone: 304-863-4305

36F. FAX: (304) 362-9703

36A. Printed name of contact person (if different from above): John J. Mentink

36B. Title: Sr. Environmental Consult.

36C. E-mail: john.j.mentink@chemours.com

36D. Phone: 304-863-4033

36E. FAX: 304-863-4862

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input checked="" type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input checked="" type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input checked="" type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Business Certificate

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**THE CHEMOURS COMPANY FC, LLC
8480 DUPONT RD
WASHINGTON, WV 26181-8398**

BUSINESS REGISTRATION ACCOUNT NUMBER: 2303-3963

This certificate is issued on: **10/27/2014**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code.*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

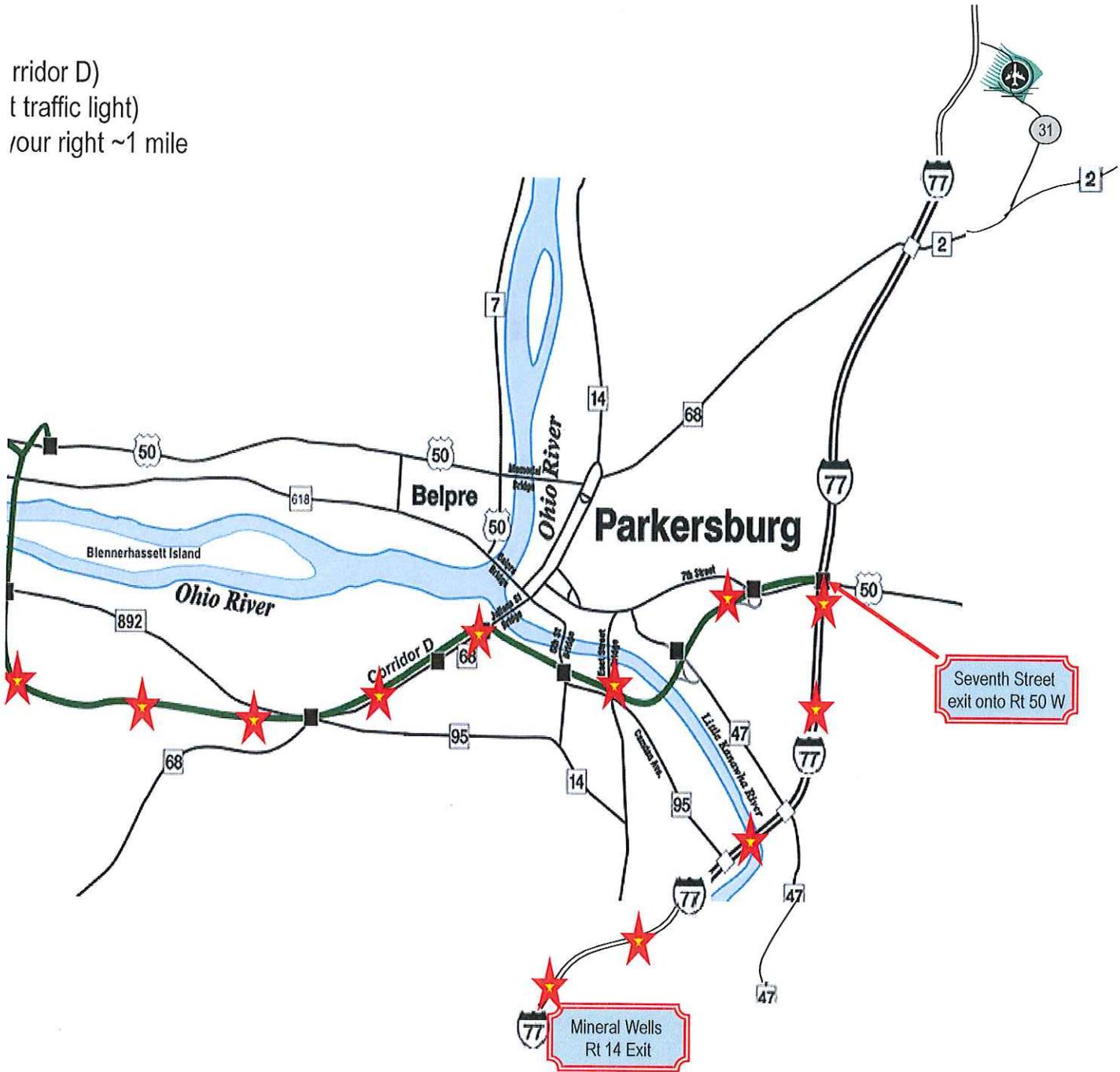
This certificate is not transferrable and must be displayed at the location for which issued.
This certificate shall be permanent until cessation of the business for which the certificate of registration
was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new
certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of
this certificate displayed at every job site within West Virginia.

Attachment A
Map to Facilities

Corridor D)
at traffic light)
four right ~1 mile



Attachment C
Schedule

Attachment C
Schedule of Installation and Startup

The proposed change to route the discharge of the Dried Polymer Conveying blower C1FK from into the scrubber C1FKSC3 to the stack C1FSE will be implemented within one week of the submitted application being declared complete by the WV-DAQ..

ATTACHMENT D

**Applicable Requirements & Methods of
Compliance**

Applicable Regulatory Discussion:

This process area is covered by the following state regulations:

1. 45CSR4
2. 45CSR7
3. 45CSR13
4. 45CSR21
5. 45CSR29
6. 45CSR30

This process area operation is currently covered by permit R13-2365H and R13-3223.

RACT

45CSR21-40.3.c requires RACT analysis on a case by case basis for those VOC emissions greater than 6 pph which are constructed, modified, or begin operation after the date 45 CSR 21 becomes effective. Permit R13-3223 requires RACT analysis for any increase in VOC from sources listed in R13-3223. There are no changes

PSD

As of January 2, 2011, pursuant to actions taken by the USEPA, Greenhouse Gases (GHGs) became a regulated pollutant under the major NSR program. As such, an evaluation must be done for any increase in GHG emissions resulting from construction or modification to determine PSD applicability per 40 CFR 52.21. There are no new emissions of components listed in table A-1 of 40 CFR 98.2 therefore PSD for GHG does not apply.

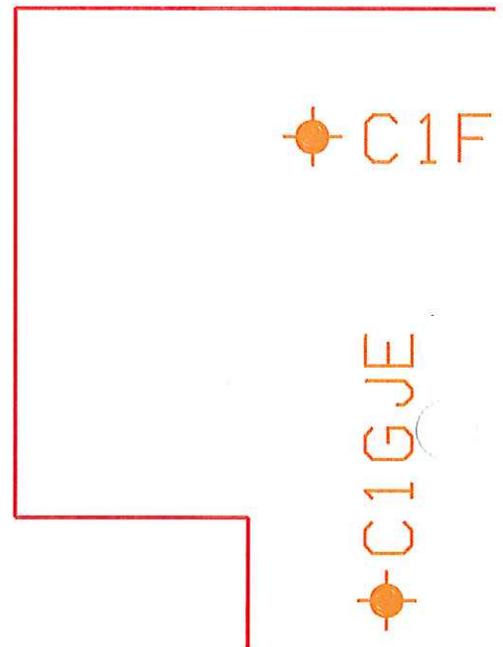
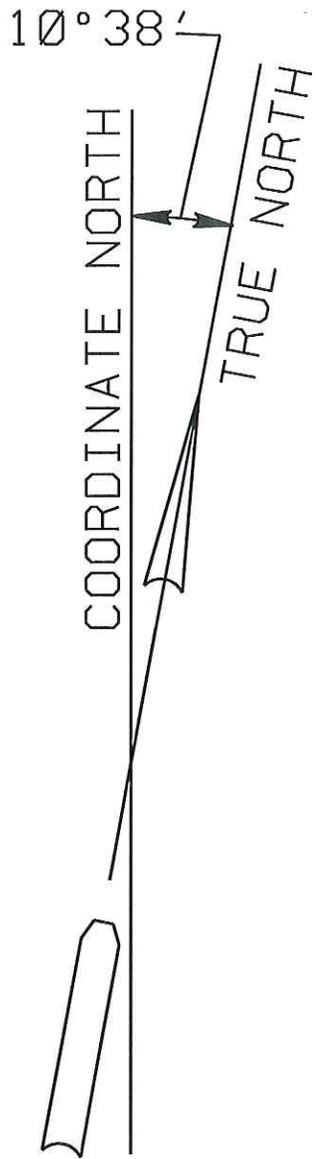
Requested Changes Summary for R13-2365

Permit No.	Condition No.	Description of Proposed Permit Change
R13-2365H	Table A.1	Under the emission point for C1FSE and the emission unit ID C1FK – remove the reference to C1FSC3 (scrubber) from the control device listing for C1FK. The discharge of C1FK will be routed into the stack C1FSE after C1FSC3.
R13-2365H	Table A.1	Under the emission point for C1FSE change the listed PM ₁₀ emission rate to 0.01 pounds per hour and the annual PM ₁₀ emission rate to 0.02 tons per year. This is a decrease in PM and PM10 emissions (Identical in this case) of 0.22 pounds per hour and 0.54 tons per year.
R13-2365H	Table A.1	The amount of VOC discharged from C1FSE will remain unchanged at 0.65 pounds per hour and 1.60 tons per year.

Initial discussions with EV_DAQ personnel indicated that because we have a decrease in emissions from a permitted point the application will be processed as a Class I Amendment to the existing permit.

Attachment E

Plot Plan

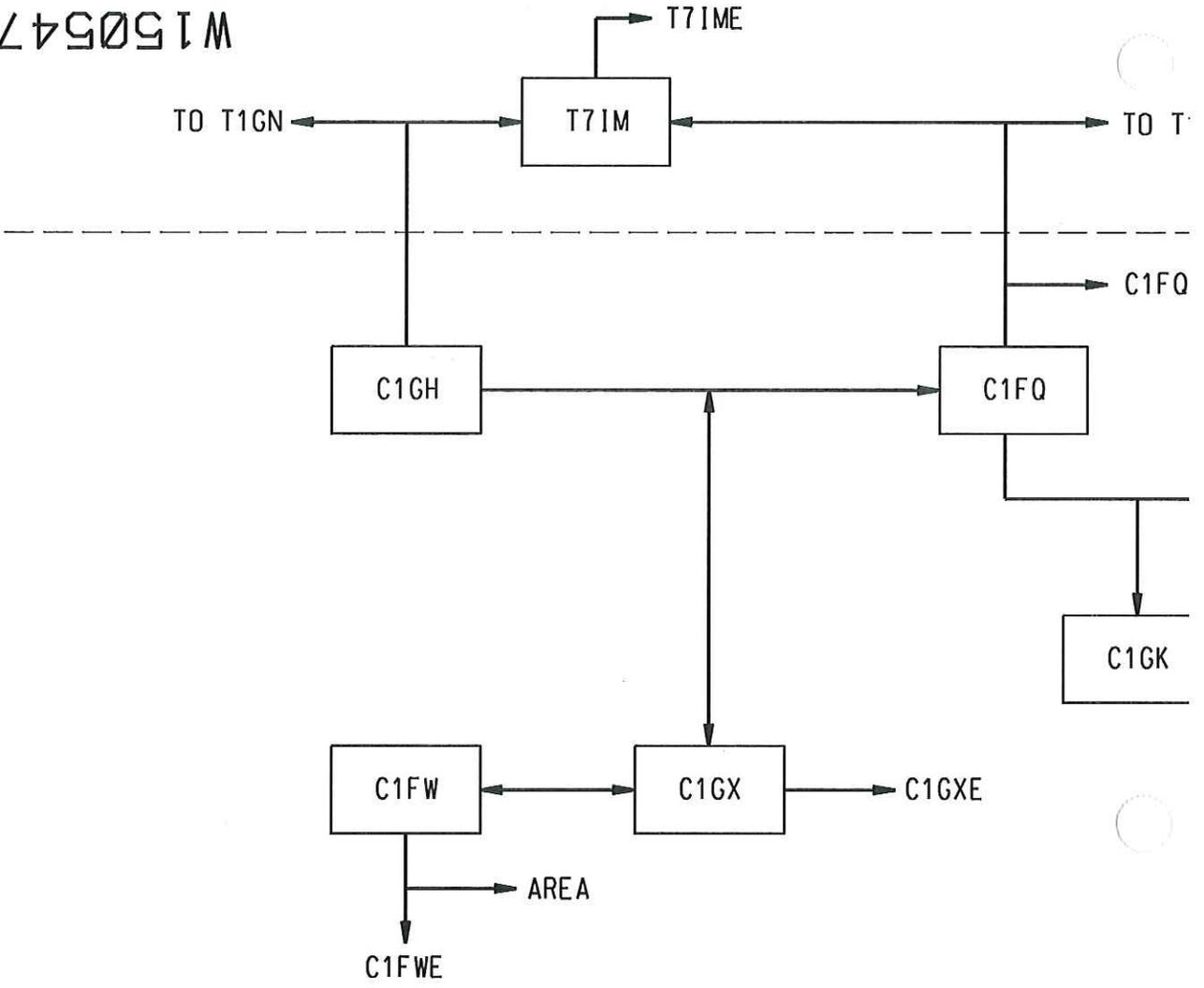


Attachment F

Detailed Process Flow Diagrams

40 39 38 37 36 35 34 33 32 31

W1505477



Attachment G

Process Description

C1-P Process Description

PFA is a copolymer of various monomers produced in a semi-batch polymerization process. The reaction requires a pre-charge of water, ethane, aqueous fluorosurfactants, water-soluble initiator salts and the monomers. During polymerization, the monomers and some make-up initiator are continually added to the reactor. The system is also designed to produce a low molecular weight Poly-TFE product, which is similar to PFA.

At batch end, un-reacted monomers will be vented down to 5 psig to the Thermal Converter (T7IMC) covered by permit 1823. When the Thermal converter is not operational, the unreacted monomers will be vented to Monomer's internal recovery device (T1GN). From 5 psig to a slight vacuum, the reactor will be vented to the atmosphere.

The aqueous emulsion produced in the reactor is transferred to the Isolation facility for further processing and then transferred to the Finishing system. Some of the aqueous surfactant added during polymerization is driven off in the drying step, and recovered by C1FSC2 and C1FSC3.

The dried polymer is pneumatically conveyed to various vessels, processed further, and then extruded to produce small pellets or cubes. A small amount of dry polymer bypasses the extruder and is packed out as fluff.

The cubes are blended in downstream facilities, and then either packed out for sale to customers, or transferred to the fluorination facilities. Material sent to the fluorination facilities is transferred into a reactor where the polymer end groups react with a fluorine/nitrogen mixture to produce a more stable product. The un-reacted fluorine and reaction byproducts are vented to C1FEC. The cubes are then cooled, sampled, and packed out for sale to customers.

The changes submitted in this Class I Administrative update R13-2365I include:

1. The correction of the process flow diagram to show the correct sequence of process flow with the dried polymer from the dryer unit being separated from the air conveying fluid using C1FKC to recover the product. The dried solids conveying loop operates as a suction system with the blower being located after the bag filter (C1FKC) that removes the process materials. This makes the devices an inherent process device.
2. Elimination of the scrubber (C1FSC3) as a final treatment step for the dried polymer conveying system air discharge from the suction blower. Changes in the process have resulted in the elimination of an ultrafine particulate present in the dried polymer that required the presence of the additional scrubber element to collect.

ATTACHMENT H

Material Safety Data Sheets

There are no changes in the materials handled under this permit. There are no changes in either the processing steps or in the products of these reaction and processing steps. There are no changes to the MSDS portion of the permit application.

Attachment I
Equipment List Form

Attachment I – Emission Unit Table

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control		Emission Point	
		ID No.	Source	ID No.	Device Type	ID No.	Emission Type
No Change	NA	C1FS	Dryer	C1FSC1,C1F SC2, C1FSC3	Baghouse, Scrubber, DBS	C1FSE	Stack
Removed C1FSC3 as control device	3Q2016	C1FK	Conveying System	C1FKC,	Baghouse,	C1FSE	Stack

Attachment J

Emission Points Data Summary Sheet

Emission point ID No. (Must match Equipment List Form and Plot plan)	Source(s) Vented Through This Point ¹ (Must match Equipment List Form and Plot plan)		Air Pollution Control Device (Must match Equipment List Form and Plot plan)		Vent Time for Source (Chemical Processes Only)		All Regulated Pollutants-Chemical Name/CAS ² (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ³		Maximum Potential Controlled Emissions ⁴		Emission Form or Phase (At exit conditions, Solid, Liquid, or Gas/Vapor)	Est. Method Used ⁵	Emission Concentration ⁶ (PPMV or Mg/M ³)	Inner Diameter (Ft.)	Temp. (F)	Vc
	ID No.	Source	ID No.	Device Type	Short Term	Max (Hr/Yr)		Lb/Hr	Ton/Yr	Lb/Hr	Ton/Yr						
C1FSE	C1FS, C1FK	Dryer (C1FS)& Conveying (C1FK)	C1FSC1 C1FSC2 C1FSC3	Baghouse Scrubber	Continuous	Cont.	PM10 VOC	625.3 0.65	109 1.6	0.01 0.65	0.02 1.6	Particulate Gas	E.E. E.E.	2.1 mg/M ³	0.69	41-140	6'

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on

¹ Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 da

² List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS2, VOCs, H2S, Inorganics, Lead, Organics, O3, NO, NO2, SO2, SO3, DO NOT LIST CO2, H2, H2O, N2, O2, and Noble Gases.

³ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁵ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

⁶ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO2,

use units of ppmv (See 45CSR10)

⁷ Give at operating conditions. Include inerts.

⁸ Release height of emissions above ground level.

^a See confidential calculations for the source of these APFO numbers

Attachment K

Fugitive Emissions Data Summary Sheet

There are no changes in fugitive emissions for this permit change.

Attachment L – Emission Unit Data Sheets

5. Give chemical reaction that will be involved (if applicable), including any side reactions that may occur and gases that may be generated during reaction.

Not applicable

Exothermic

Endothermic

6. Maximum Temperature: Claimed Confidential Maximum Pressure: _____ mm Hg

_____ °F

Atm. _____ psig

7. Output Data:

Descriptor Name and CAS No.	Phase	Specific Gravity	Vapor Pressure	Hourly or Batch Output Rate		
				Normal	Maximum	Units
Fluoropolymer resin 26655-00-5	S	1.6		Claimed Confidential	Claimed Confidential	Pph

8. Describe any methods, techniques, or devices, including equipment ID number, to be used to control air emissions from this equipment item (indicate set pressure of emergency relief devices):

Polymer and conveying air enter C1FKC, which separates the polymer from the air to recover the polymer for further processing.

9. Complete the following emission data for equipment connected to a header exhaust system, giving emissions level before entering header system (i.e. before control equipment):

Emission Point ID* C1FKE

Check here if not applicable

Descriptor Name and CAS N	Maximum Potential Emission Rate (lb/hr)	Method**
Fluoropolymer particulate	Claimed Confidential	E.E.

*exhaust point of header system

**MB-material balance; EE-Engineering Estimate; TM=Test Measurement (submit test data); O-other (Explain): _____

10. The following pertains to equipment that burns fuel (heaters, dryers, etc.)

x Check here if not applicable

a. Type of fuel and maximum fuel burn rate, per hour:

b. Provide maximum percent sulfur and ash content of fuel and BTU content using appropriate units

_____ % S _____ % Ash _____ BTU/lb, SCFD, gal
(Circle one)

c. Theoretical combustion air requirement in SCFD per unit of fuel (circle appropriate unit) @70°F and 14.7 psia

_____ SCFD/lb., SCFD, gal (Circle one)

d. Percent excess air: _____ %

e. Type number and BTU rating of burners and all other firing equipment that are planned to used:

f. Maximum design heat input: _____ x 10⁶ BTU/hr

NOTE: An *Air Pollution Control Device Sheet* must be completed for any air pollution device(s) (except emergency relief devices) used to control emissions from this equipment item

Attachment M

Air Pollution Control Device Sheets

AIR POLLUTION CONTROL DEVICE SHEET (BAGHOUSE)

Control Device ID No.*:C1FKC
(Product Recovery Device)

Answer the following for each baghouse in the system:

1. Manufacturer's name and model identification:
Young Industries Unicage Filter model VC36-12-36
2. Total number of compartments. 1
3. Number of compartments on line (in operation at normal conditions): 1
4. Gas flow rate into collector: 100 ACFM @ 110 °F and 13 PSIA
5. Total cloth area: 48 ft²
6. Operating air to cloth ratio: 2.08 ft/min
7. Type of pollutant(s) to be collected (if particulate give specific type):
Fluoropolymer fluff
8. Is baghouse
 continuous, automatic, intermittent?
9. Method used to clean bags
 Shaker pulse jet reverse jet Other _____
10. Stabilized static pressure loss across baghouse: 2.5 - 3 inches Hg
11. Type of fiber or filter cloth: Goretex membrane/Aramid felt (Nomex) 14 oz.
12. Emission rate of pollutant (specify) into and out of collector at maximum design operating conditions:
 Pollutant: fluoropolymer Into: CBI lb/hr: grains/ACF
 Out: CBI lb/hr: grains/ACF

* Identification number of this affected source assigned as required in Section III.A.

13. Guaranteed minimum collection efficiency (provide for each pollutant to be captured):
 100% efficiency @ >3.2 microns
 99.5% efficiency @ 3 micron
 98.5% efficiency @ 2.5 micron
 98% efficiency @ 2 micron
 97.5% efficiency @ 1.8 micron

14. Complete the following tables: See below

Particle Size Distribution at Inlet to Collector

Particle Size Range (microns)	Weight % for Size Range
0-2	0
2-4	100
4-6	
6-8	
8-10	
10-12	
12-16	
16-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	
>100	

Fractional Efficiency of Collector

Particle Size Range (microns)	Weight % for Size Range
0-2	
2-4	
4-6	
6-8	
8-10	
10-12	
12-16	
16-20	
20-30	
30-40	
40-50	
50-60	
60-70	
70-80	
80-90	
90-100	
>100	

Fluoropolymer particulate:

D1 = 4.5 micron

D3 = 5.3 micron

100% > 3.5 microns

38% < 10 microns

99.9% > 3.2 micron

0.1% in range 2.5-3.2 micron

15. The following questions pertain to the system exhausting the affected source(s) to this control device:

- a. Provide a written description of the pollutant capture system (e.g., hooding arrangement). State hood face velocity and hood collection efficiency, if applicable:

Closed system

- b. Provide a clear description of projected pollutant transport system including duct arrangement, size of ducts, air volume, and capacity as well as projected operating horsepower of air movers such as fans or compressors. (This information can be supplied on the diagram requested in Section III.):

See diagram

- c. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheat, gas humidification):

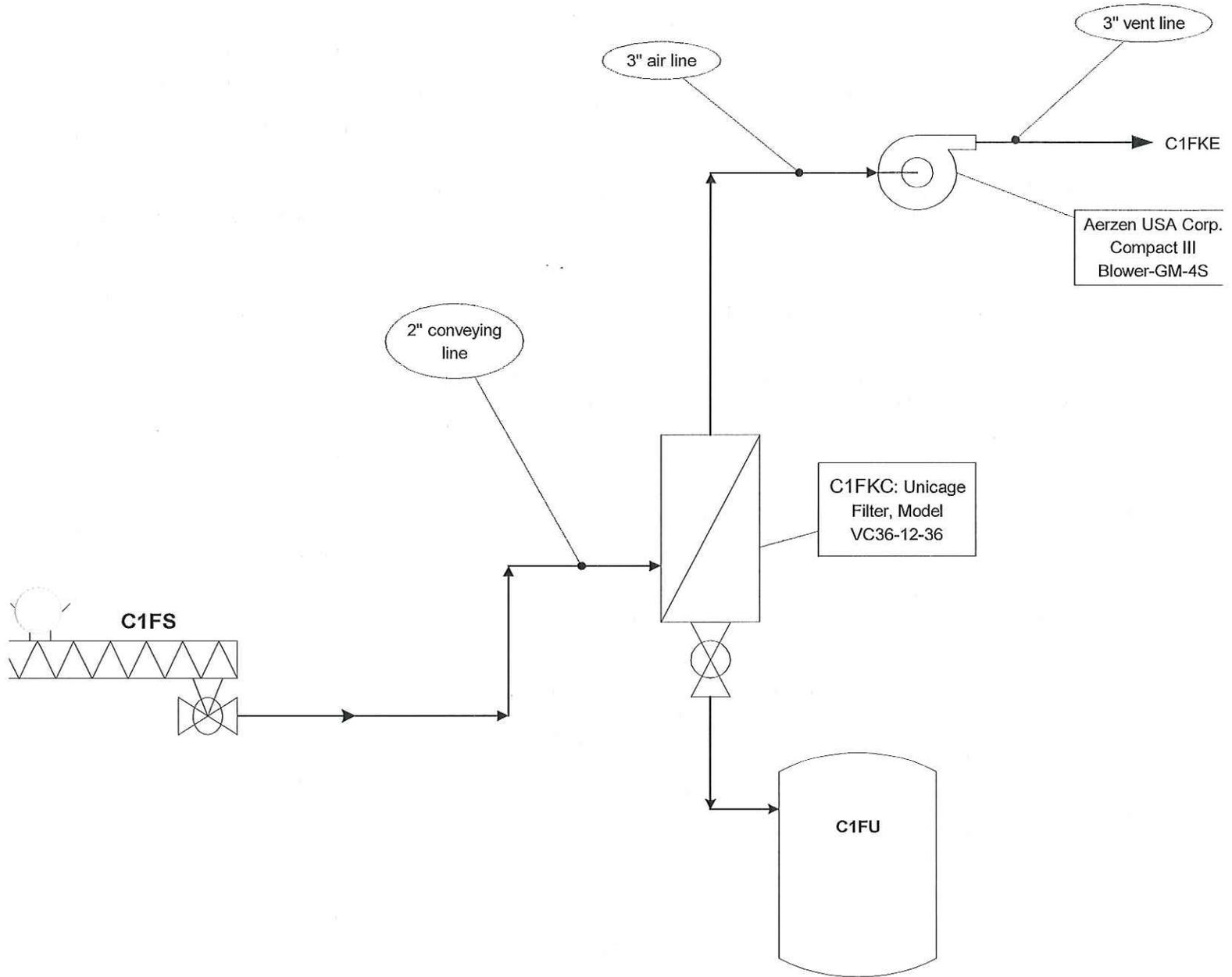
None

- d. Describe the disposal system for the collected material:

Placed in drums and landfilled – non-hazardous waste.

- e. Complete the *Emissions Points Data Sheet*.

Sketch of C1FKC:



18. If the liquor is to be recirculated, describe any treatment performed: Not recirculated	
19. Data for Venturi Scrubber: N/A Throat Dimensions: (Specify Units) Throat Velocity: ft/sec	20. Data for Packed Towers: Type of Packing: Superficial Gas Velocity through Bed:

Gas Stream Characteristics

21. Gas flow into the collector: CBI ACF @ CBI°F and 15 PSIA	22. Gas stream temperature: Inlet: CBI °F Outlet: CBI °F																						
23. Gas flow rate: Design Maximum: 1000 ACFM Average Expected: CBI ACFM	24. Particulate Grain Loading in grains/scf: Inlet: Outlet:																						
25. Emission rate of each pollutant (specify) into and out of collector:																							
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: left; padding: 5px;">Pollutant</th> <th colspan="2" style="text-align: center; padding: 5px;">IN</th> <th colspan="2" style="text-align: center; padding: 5px;">OUT</th> <th rowspan="2" style="text-align: center; padding: 5px;">Guaranteed Minimum Collection Efficiency</th> </tr> <tr> <th style="text-align: center; padding: 5px;">lb/hr</th> <th style="text-align: center; padding: 5px;">grains/acf</th> <th style="text-align: center; padding: 5px;">lb/hr</th> <th style="text-align: center; padding: 5px;">grains/acf</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">A PM10</td> <td style="text-align: center; padding: 5px;">0.16</td> <td style="padding: 5px;"></td> <td style="text-align: center; padding: 5px;">0.002</td> <td style="padding: 5px;"></td> <td style="text-align: center; padding: 5px;">99%</td> </tr> <tr> <td style="padding: 5px;">C VOC</td> <td style="text-align: center; padding: 5px;">0.65</td> <td style="padding: 5px;"></td> <td style="text-align: center; padding: 5px;">0.65</td> <td style="padding: 5px;"></td> <td style="text-align: center; padding: 5px;">0%</td> </tr> </tbody> </table>		Pollutant	IN		OUT		Guaranteed Minimum Collection Efficiency	lb/hr	grains/acf	lb/hr	grains/acf	A PM10	0.16		0.002		99%	C VOC	0.65		0.65		0%
Pollutant	IN		OUT		Guaranteed Minimum Collection Efficiency																		
	lb/hr	grains/acf	lb/hr	grains/acf																			
A PM10	0.16		0.002		99%																		
C VOC	0.65		0.65		0%																		
26. Type of pollutant(s) controlled: <input type="checkbox"/> SO _x <input type="checkbox"/> Odor <input checked="" type="checkbox"/> Particulate (type): PM10 <input type="checkbox"/> Other:																							
27. By what method were the uncontrolled emissions calculated? <input type="checkbox"/> Material Balance <input type="checkbox"/> Stack Test <input type="checkbox"/> Pilot Test <input checked="" type="checkbox"/> Other: Combination of stack tests and pilot test																							
28. Dimensions of stack: Height 115 ft. Diameter 8"																							
29. Supply an equilibrium curve and/or solubility data (at various temperatures) for the proposed system. Not Available																							
30. Supply a curve showing proposed collection efficiency versus gas volume from 25 to 100 percent of design rating of collector. Not Available																							

Control Device ID No. (must match List Form): C1FSC3

Particulate Distribution

31. Complete the table:		Particle Size Distribution at Inlet to Collector	Fraction Efficiency of Collector
Particulate Size Range (microns)		Weight % for Size Range	Weight % for Size Range
0 – 2.5		100	99%
32. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification): Gas coolers and a demister are installed on the gas inlet.			
33. Describe the collection material disposal system: The scrubber fluid is sent to another part of the plant for recovery and reuse of the material captured by the scrubber.			
34. Have you included <i>Wet Collecting (Scrubber) Control Device</i> in the Emissions Points Data Summary Sheet? Yes			
35. Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.			
MONITORING: The cooling water flow rates to the coolers will be monitored. The water flow rate to the scrubber spray nozzles will be interlocked at 0.3 gpm, and the feed will not start if the water flow is below this level.		RECORDKEEPING: A record of when the interlocks trip will be kept. An electronic log will be kept when these interlocks are tripped. Data to be kept will be date of occurrence, cause, if known, and what was done to fix the problem, if a problem is found. The minimum hourly water flow during operation for the month will be recorded.	
REPORTING: Reporting per Title V requirements.		TESTING: As required by permit.	
MONITORING:	Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.		
RECORDKEEPING:	Please describe the proposed recordkeeping that will accompany the monitoring.		
REPORTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.		
TESTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.		
36. Manufacturer's Guaranteed Control Efficiency for each air pollutant. N/A			
37. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty. None			

Attachment N
Supporting Emission Calculations

ATTACHMENT N

Supporting Calculations – [Public Version]

Revisions being made to the old documentation (Proposed changes to process)

Basis:

- Particle size distribution updated per new analytical data
- Relocating the C1FK stream to not pass thru C1FSC3, yet exit through the C1FSE emission point.
- Analysis of process material exiting the dryer indicate non-detectable (<1ppm) quantities of surfactant, therefore surfactant emissions have been removed.

NEW DOCUMENTATION**Dryer example Calculations:****Process Description**

A dryer is used to remove moisture from the polymer being processed. The dryer gas exits the dryer and is treated by bag filter to control particulate loss followed by a scrubber (SB1) and a condenser (C1) in series, followed by a 3rd scrubber (SB2). A second gas stream is routed to the same stack as the dryer that comes from the dried material conveying system. The dried material conveying system transports the fluff material from the dryer exit to further processing using a suction system. A separate bag filter is used to collect the product from the conveyed gas stream.

Calculations – for PM

PM quantities are the same as the PM10 amounts due to the filtration that these streams undergo.

Calculations – for PM10

Total PM10 hourly emission (controlled) = mass of PM10 material from conveying + mass of PM10 material that makes it through all control on the dryer gas stream

Calculations – for VOC

Total VOC hourly emission (controlled) = VOC hourly emission from dryer (controlled)

Total VOC yearly emission (controlled) = VOC hourly emission from dryer (controlled)

Reg 7 Assessment

The Reg 7 limit for this process is calculated by taking the process rate times the factor found in 45 CSR 7. This process is within that limit.

Emission Point Summary

Exit Velocity = $\frac{((\text{Conveying air volume rate [CFM]} + (\text{dryer air volume rate [CFM]})) / 60}{(\text{Stack cross sectional area})}$

Pollutant Concentration = $\frac{(\text{PM10 Emission rate})}{(\text{Conveying air volume rate} * 60 + \text{dryer air volume rate} * 60)}$

Convert answer from lbs. pollutant per ft3 to mg/m3

C1FK

Process Description

Product (fluff) is pneumatically conveyed from the Torus Disk dryer to a filter/receiver. The filter separates the product (which is collected in a hopper), from the air (which discharges to the emission point).

Compliance Monitoring

Refer to page 640B for compliance monitoring and interlocks.

Basis for Calculations

Particle Size Distribution

The particle size distribution of product was analyzed:

D1 = 4.5 microns

D3 = 5.3 microns

All particles measured > 3.5 microns

38% of material is below 10 microns

Based on these results and considering previous results, the particle size distribution is 99.9% > 3.2 micron, and 0.1% is 2.5-3.2 micron.

Filter Efficiency

Existing Filter bag is type 1 felt with a performance coating. Young Industries claims that it is 99.5% efficient to 3 micron particles at their design conditions.

Young Industries provided the following Reference information:

14 ounce type 1 felt:	95% to a 1 micron particle size
14 oz type 2 felt	98.4% to a 1 micron
particle size	
12 oz type 2 felt with performance coating	99.99% to a 0.7 micron particle

Lab data was obtained from W.L. Gore for the used bag. The data shows how bag efficiency varies with particle size for a "Charge Neutralized Sodium Chloride Aerosol" under various test conditions. The used filter media bag is 99.9 to 100% efficient to a 0.7 micron sodium chloride aerosol. (99+% efficient to a 0.35 – 0.45 micron Sodium Chloride aerosol).

Based on the above data, the following efficiencies are assumed:

For particles > 3.2 micron	100% efficiency
2.5-3.2 micron:	99.5% efficiency

Constant Definitions

- Blower discharge rate
- Normal Fluff conveying rate
- Maximum Fluff conveying rate
- Isolation production on annual basis
- % of particles <10 micron
- Particle fraction between 2.5-3.2 micron
- Filter efficiency (removing 2-5-3.2 micron)

Calculations – for PMCalculating hourly and yearly PM emissions (if uncontrolled) from source C1FK

Maximum uncontrolled hourly emissions will occur at maximum fluff conveying rate since this is the maximum amount of material processed through the system.

Maximum annual material processed through the system is the amount actually capable of being processed on a years' basis. This will be less than the maximum hourly amount times the number of available operating hours since the process usually does not operate on a long-term basis at the maximum hourly permitted rate.

Calculations – for PM10Calculating hourly and yearly PM10 emissions (if uncontrolled) from source C1FK

Maximum uncontrolled hourly emissions will occur at maximum fluff conveying rate.

Maximum hourly PM10 uncontrolled rate = Maximum fluff rate X PM10 concentration in the fluff handled

Maximum annual PM10 uncontrolled rate = Annual production X PM10 Concentration in fluff produced

Calculating hourly and yearly PM10 emissions (controlled by C1FKC) from source C1FK

Maximum controlled hourly emissions will occur at maximum fluff conveying rate.

Max. Hourly PM10 Controlled emissions rate
fluff rate = PM10 fraction* (1-Filter_efficiency) * Maximum

Max. Annual PM10 Controlled emission rate
rate = PM10 fraction* (1-Filter_efficiency) * Annual prod

C1FS**Process Description**

The Dryer essentially removes all of the water from the wet cake received from the upstream filter. The water vapor, some small polymer particles, processing aids and other VOCs are discharged to a bag filter to remove polymer fines, and then on to a scrubbing system for emission control.

Calculations – for VOC

VOC emissions from attached sample calculations:

$$\text{VOC (hourly)} = 0.635 \text{ lbs/hr}$$

$$\text{VOC (yearly)} = 3177 \text{ lbs/yr}$$

Basis for Particulates Calculations

The dryer bag filter for the dryer has the same construction as the conveying bag filter media.

Therefore, it is 100% efficient for removing particles over 3.2 micron.

Calculations – for PMCalculating hourly and yearly PM emissions (if uncontrolled) from source C1FS

Maximum uncontrolled hourly emissions will occur at maximum fluff conveying rate.

$$\text{Maximum uncontrolled hourly emissions rate} = (\text{max hourly rate}) * (\text{Fines weight fraction})$$

$$\text{Maximum annual uncontrolled emissions rate} = (\text{Annual prod}) * (\text{Fines weight fraction})$$

Calculating hourly and yearly PM emissions (controlled) from source C1FS

$$\text{Controlled Dryer PM hourly Emission Rate} = (\text{normal hourly rate}) * (\text{Fines weight fraction}) * (1 - \text{Control efficiency})$$

$$\text{Controlled Dryer PM yearly Emission Rate} = (\text{normal annual rate}) * (\text{Fines weight fraction}) * (1 - \text{Control efficiency})$$

Calculations – for PM10Calculating hourly and yearly PM10 emissions (if uncontrolled) from source C1FS

The fraction of particulate emissions that are <10 microns.

$$\text{Maximum PM10 hourly uncontrolled emission rate} = (\text{max hourly rate}) * (\text{Fines wf}) * \text{PM10 fraction}$$

$$\text{Maximum PM10 yearly uncontrolled emission rate} = (\text{Annual prod}) * (\text{Fines wf}) * \text{PM10 fraction}$$

Calculating hourly and yearly PM10 emissions (controlled and exiting from C1FSE) from source C1FS

Maximum uncontrolled hourly emissions will occur at maximum fluff conveying rate.

Dryer Controlled PM10 Emission rate = (Dryer uncontrolled PM10 hourly emission rate) X (1-Bag filter eff) X (1-Scrubber solids control eff) X (1-Fianl filter polymer control eff)

Dryer Controlled Annual PM10 Emission rate = (Dryer uncontrolled PM10 annual emission rate) X (1-Bag filter eff) X (1-Scrubber solids control eff) X (1-Fianl filter polymer control eff)

REDACTED

VOC Calculations for emissions from C1F5E

The scrubbing system receives a vapor stream from the Dryer (C1F5). Calculations and samples verify that all Surfactant entering the Dryer is either vaporized or degraded to VOC degraded Surfactant. The amount of Surfactant entering the Dryer is a fixed percentage of the amount entering the upstream Tank

2 cases are run for both max hourly rates and annual rates. Case 1 assumes running at {CBI DATA} (50% of max instantaneous rate). Case 2 is at max instantaneous rate. Case 1 uses actual mass balance data, and Case 2 makes assumptions based off the mass balance data.

Max hourly vent quantity of Surfactant	0.043	lbs
Annual vent quantity of Surfactant	216	lbs/yr
Max hourly vent quantity of Degraded surfactant	0.592	lbs
Annual vent quantity of degraded surfactant	2961	lbs/yr

CALCULATING Surfactant/VOC degraded Surfactant EMISSIONS SCRUBBER STACK

Description	Qty	Units	Comments
Dryer vapor exit temperature	Claimed	C	Average temperature of vapor discharge
Surfactant degradation rate constant	Confidential	hr ⁻¹	Thermal decomposition will not be used in the calcs since residence time is difficult to determine. Rather mass balance samples will be utilized
Half life of Surfactant		hr	
Dryer polymer inventory		lbs	50% of max inventory
CASE 1			
Dryer feed rate (polymer)	Claimed	lbs/hr	
Dryer feed rate (water)	Confidential	lbs/hr	X% solids by weight
Total dryer feed rate		lbs/hr	
Surfactant feed rate to dryer		lbs/hr	
Scrubbing efficiency	0.96	0.96	
Surfactant flowrate from scrubber liquid discharge	Claimed	lbs/hr	(from sampling = 0.33 - 0.45 lbs/hr)
Surfactant feed to scrubbing		lbs/hr	
VOC degraded Surfactant max hourly emission rate (500 pph case)	Claimed	lbs/hr	
VOC degraded Surfactant annual emissions (500 pph case)	Confidential	lbs/yr	365 days, 24 hrs/day
Surfactant max hourly emission rate (500 pph case)		lbs/hr	
Surfactant annual emissions (500 pph case)		lbs/yr	365 days, 24 hrs/day
CASE 2			
Dryer feed rate (polymer)	Claimed	lbs/hr	
Dryer feed rate (water)	Confidential	lbs/hr	X% solids by weight
Total dryer feed rate		lbs/hr	
Surfactant feed rate to dryer		lbs/hr	
Surfactant feed to scrubbing	Claimed	lbs/hr	
Surfactant flowrate from scrubber liquid discharge	Confidential	lbs/hr	
VOC degraded Surfactant max hourly emission rate (1000 pph case)		lbs/hr	
VOC degraded Surfactant annual emissions (1000 pph case)		lbs/yr	
Surfactant max hourly vent rate		lbs/hr	
Surfactant emissions annual		lbs/yr	

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REDACTED

Attachment O

Monitoring, Recordkeeping, Reporting and Testing Plans

**Attachment O – Monitoring, Recordkeeping, Reporting and Testing Plan
R13-2365I Class I Permit Amendment Application**

Monitoring

- Under section 4.2.2. of Title V Operating Air Permit R30-10700182-2016 (Part 2 of 14), the permittee will continue to monitor:
 - Water flow to the scrubber; this must remain at or above 0.3 gallons per minute or the dryer feeds will be turned off by an installed interlock.

Recordkeeping

- In accordance with section 4.4.2. of the Title V permit, the permittee will continue to keep accurate records of maintenance activities and malfunctions and other operational shutdowns which result in excess emissions; the minimum required additional information identified in this section shall be recorded.
- In accordance with section 4.4.4. of the Title V permit, the permittee will continue to keep records of any malfunctions lasting in excess of 30 minutes.
- In accordance with 4.4.5 of the Title V permit, the permittee will continue to produce the condensed monthly summaries as instructed by the permit.

Reporting

- None.

Testing

- In accordance with 4.3.1 of the Title V permit, the permittee will perform a compliance test on eh dryer C1FS within 90 days of the 60-minute average production exceeding 120% of the production rate demonstrated in the most recent test

Attachment S

Title V Permit Revision Information

Attachment S

Title V Permit Revision Information

1. New Applicable Requirements Summary	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS Subpart(s)_____)	<input type="checkbox"/> Section 112(d) MACT (Subpart(s)_____)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) ⁽¹⁾
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)
<p>⁽¹⁾ If this box is checked, please include Compliance Assurance Monitoring (CAM) Form(s) for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why Compliance Assurance Monitoring is not applicable:</p> <p>Compliance Assurance Monitoring requirements were evaluated at the renewal of the Title V permit for this segment of the DuPont Washington Works. The proposed changes included R13-2365I do not change the results of the Title V renewal evaluation.</p>	

2. Non Applicability Determinations

List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination.

- a. 40 C.F.R. 60 Subpart K - "Standards of Performance For Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978." Tanks in the Fluoropolymer Production Unit containing petroleum liquids constructed, relocated, or modified during these dates have a storage capacity less than the applicability threshold. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**
- b. 40 C.F.R. 60 Subpart Ka - "Standards of Performance for Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984." Tanks in the Fluoropolymer Production Unit containing petroleum liquids constructed, relocated, or modified during these dates have a storage capacity less than the applicability threshold. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**
- c. 40 C.F.R. 60 Subpart Kb - "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984." Tanks in the Fluoropolymer Production Unit containing volatile organic liquids constructed, relocated, or modified after July 23, 1984 have a storage capacity less than the applicability threshold. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**
- d. 40 C.F.R. 60 Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." Fluoroproducts facilities do not produce as intermediates or final products any of the materials listed in §60.489. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**
- e. 40 C.F.R. 60 Subpart DDD - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry." The Fluoroproducts production facilities do not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**
- f. 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 Fluoroproducts facilities do not have a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**
- g. 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 Fluoroproducts facilities do not have a process unit that produces any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**

Permit Shield Requested *(not applicable to Minor Modifications)*

2. Non Applicability Determinations

List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination.

h. 40 C.F.R. 61 Subpart V - "National Emission Standards for Equipment Leaks (Fugitive Emissions Sources)." Applies to sources in VHAP service as defined in §61.241. VHAP service involves chemicals that are not used in Fluoroproducts manufacture. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**

i. 40 C.F.R. 63 Subpart H - "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." 40 C.F.R. 63 Subparts F, G, and H do not apply to manufacturing process units that do not meet the criteria in §§63.100(b)(1), (b)(2), and (b)(3). **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**

j. 40 C.F.R. 63 Subpart JJJ - "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins. Fluoroproducts manufacturing does not produce the materials listed in §63.1310. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**

k. 40 C.F.R. 82 Subpart B - "Protection of Stratospheric Ozone." Requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing equipment need to be licensed. The Fluoroproducts production facility does not conduct motor vehicle maintenance involving CFCs on site. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**

l. 40 C.F.R. 63, Subpart EEEE - "National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)." Storage tank T5HY has a design capacity of less than 18.9 cubic meters (5,000 gallons) and is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. It is only subject to the recordkeeping requirements of 40 C.F.R. §63.2343(a). Storage tank T7AA is an existing tank with a design capacity greater than or equal to 18.9 cubic meters (5,000 gallons) and less than 189.3 cubic meters (50,000 gallons) storing an organic liquid with an annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid less than 27.6 kilopascals (4.0 psia). Since the annual average true vapor pressure of the total Table 1 organic HAP is less than 4.0 psia, this tank is not required to be controlled under 40 C.F.R. 63, Subpart EEEE and is only subject to the notification, recordkeeping, and reporting requirements of 40 C.F.R. §§63.2343(b)(1) through (3). The unloading systems MCE and MCS are used for unloading when maintenance or inspection is required and are not an affected source under 40 C.F.R. 63, Subpart EEEE as specified in 40 C.F.R. §63.2338(c)(3). Since the tanks do not require control and the unloading systems are not affected sources, 40 C.F.R. §63.2350(c) does not require Chemours to develop a written startup, shutdown, and malfunction (SSM) plan for the tanks or unloading systems. Also, since the equipment leak detection requirements of 40 C.F.R. §63.2346(c) only apply if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 of 40 C.F.R. 63, Subpart EEEE, and none of the tanks or transfer racks are required to be controlled, Chemours is not subject to the leak detection and repair requirements of 40 C.F.R. 63, Subpart EEEE. **[This change does not alter the existing claim on non- applicability for this rule for Fluoroproducts]**

Permit Shield Requested (*not applicable to Minor Modifications*)

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

3. Suggested Title V Draft Permit Language

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision? Yes No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
R13-2365H	09/04/2015	Table A.1
R13-3223	12/08/2014	B.8.

5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
	MM/DD/YYYY	

6. Change in Potential Emissions

Pollutant	Change in Potential Emissions (+ or -), TPY
Fluorides	0
Carbon Monoxide	0
PM10	-0.54
Particulate	0
ODC	0
VOC	0.0
HAP	0

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

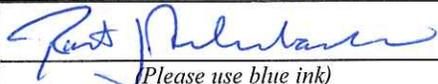
7. Certification For Use Of Minor Modification Procedures (Required Only for Minor Modification Requests)

Note: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:

- i. Proposed changes do not violate any applicable requirement;
- ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;
- iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;
- v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;
- vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;

Notwithstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of the State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V operating permit issued under 45CSR30.

Pursuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use of Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor permit modification procedures are hereby requested for processing of this application.

(Signed):	 <i>Please use blue ink</i>	Date:	<u>May 20 2016</u> <i>Please use blue ink</i>
Named (typed):	Robert J. Fehrenbacher	Title:	Plant Manager

Note: Please check if the following included (if applicable):

- Compliance Assurance Monitoring Form(s)
- Suggested Title V Draft Permit Language

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

