



---

**west virginia department of environmental protection**

---

Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: 304/926-0475 • Fax: 304/926-0479

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

## **Evaluation Memo**

**Application Number:** R13-1823L

**Facility ID Number:** 107-00182

**Name of Applicant:** The Chemours Company FC, LLC

**Name of Facility:** Washington Works

**Application Type:** Class I Administrative Update

**Received Date:** August 26, 2015

**Complete Date:** August 27, 2015

**Due Date:** October 26, 2015

**Permit Writer:** Mike Egnor

---

### **Overview:**

This Class I Administrative update application is the result of the removal of conditions regarding Ammonium Perfluorooctanate (APFO), as well as the addition of a requirement that the Permittee not manufacture, use or purchase the material.

### **Process Description and Proposed Changes:**

The T1-T4, T7 area produces fluromonomers tetrafluoroethylene (TFE) and hexafluoropropylene (HFP); an intermediate, perfluorocyclobutane; and byproducts hydrogen chloride (HCl, aqueous) and calcium fluoride (CaF<sub>2</sub>, solid). The production facility is divided into the following logical sections: T1-TFE Synthesis, T2-TFE Refining, T3-HFP Synthesis, T4-HFP Refining, and T7-Utilities.

Fluorocarbons are reacted by pyrolysis in T1 section and the products are separated to form crude TFE and recovered byproducts. TFE is refined in T2 section. In-process materials and intermediates are reacted by pyrolysis in T3 section to form crude HFP that is then refined in T4 section.

T7 section is comprised of several utilities, including refrigeration and cold brine supply, the unit vacuum systems for maintenance clearing of equipment, waste acid neutralization, and the thermal converter. The thermal converter combusts fluorine-containing byproduct gases from the other process sections (and from polymerization operations in C1, C2, and T6 sections) and two different non-hazardous fluorine-containing liquid streams to produce aqueous hydrogen fluoride (HF) which is reacted with slaked lime (calcium oxide or CaO) to form CaF<sub>2</sub>.

Several pieces of equipment referenced within this permit application are maintained up to twice a year. In order to prepare some of these vessels for maintenance, they are cleaned with ethanol, in order to remove residual toxic chemicals. The resultant spent ethanol is transferred into a waste tanker truck and shipped off-site for proper disposal through incineration. Several pieces of equipment are no longer cleaned with alcohol, but with citric acid, which is transferred into a waste tanker truck when spent, and shipped off-site for proper disposal.

**The changes submitted in this Class I Administrative update R13-1823L include:**

1. Removed the APFO limitations from Conditions 4.1.21, 4.1.22, and 4.1.23. These Conditions are now listed as "Reserved".
2. Removed the annual emissions summary for APFO from Attachment E.
3. Removed the entire listed requirement for Condition 4.1.3 and replaced with the requirement – "The permittee shall not purchase, manufacture, store, or use Ammonium Perfluorooctanate (APFO) within the Chemours' Washington Works Facility."
4. Miscellaneous changes to update the Permit to R13-1823L, including the revisions of Conditions 2.4.1, 2.5.1 and 4.1.5.

**Emissions:**

By no longer using Ammonia Perfluorooctanate (APFO), there will be a reduction of less than 0.01 lbs/hr and less than 0.01 TPY of APFO.

**Recommendation:**

The writer recommends that the Class I Administrative Update Permit R13-1823L be granted to Chemours, Washington Works facility located in Wood County, WV. Based on the information provided in the permit application, the applicant meets all applicable federal and state air regulations pertaining to the requested change.