


Division of Air Quality

March 10, 2020

MEMORANDUM

To: Heather Carter, Fayetteville Regional Supervisor

From: Gary L. Saunders, Stationary Source Compliance Branch 

Subject: The Chemours Company – Fayetteville Works
Fayetteville, Bladen County, North Carolina
Facility ID. No. 0900009, Permit No. 03735T47
Performance Testing for HFPO Dimer Acid (GenX) Conducted at Semi-Works Stack on
January 10 – 11, 2019 by Weston Solutions, Inc.
Tracking No. 2019-013ST

Summary of GenX Test Program

Sources Tested

During January 10-11, 2019, emissions testing was conducted on the Semi-Works area where Dimer Peroxide is produced for use as polymerization initiator in the Polymers Area. There are no controls associated with this stack.

Sampling Method

Testing was conducted using a modified EPA Method 0010 found in the SW-846 compendium of *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. This sampling train is a variation of the EPA Reference Method 5 found in 40 CFR 60, Appendix A. The Method 0010 train extracts a sample isokinetically from the gas stream, passes the sample through a temperature-controlled filter, through a temperature-controlled condenser and into a series of XAD-2 resin “traps” and impingers to capture and collect the materials that passed through the filter. The test method is designed to capture certain particulate and condensable materials for later recovery and analysis.

After sample recovery, the samples were sent to Chemours’ contractor, Test America’s laboratory in Denver, Colorado. GenX was extracted from the resin traps. The DAQ required split samples after extraction to be submitted for independent analysis. This summary of results only addresses the results provided by Test America for Chemours. Laboratory analysis and quantification was performed using a liquid chromatography column and a dual mass spectrometer (LC/MS/MS).

Test Results

The reported GenX test results reflect corrected emission rates accounting for dilution and spike recovery values.

Semi-Works Process Area

The Semi-Works process area typically produces Dimer Peroxide through a batch process. The product is used as a polymerization initiator in the polymers area and uses the C3 Dimer Acid Fluoride from VEN

as part of the feed for Semi-Works. Two test runs were conducted to capture the emissions during the batch production cycle. Process operations were considered to be normal during the testing. The emission test results are presented in the table below for use in emissions estimates.

Table 4. Summary of Stack Test Results for Semi-Works on January 10-11, 2019

Test Method	Run Number	GenX Emission Rate	
		lb/hr	g/sec
Modified Method 0010	1	1.00E-03	1.26E-04
	2	6.19E-04	7.79E-05
	Average	8.10E-04	1.02E-04

Summary and Conclusions

NC DAQ staff members were on site during each day that source testing occurred. DAQ staff observed the source test teams, the sample recovery and the process operations. Based upon the onsite observation of the testing and review of the test report, NC DAQ concludes that the testing was conducted in accordance to the modified testing protocol submitted by Chemours and that the analytical results appear representative of the stack conditions and process operations during the testing.

Cc: Central Files – Bladen County
 IBEAM Documents - 0900009