



The Chemours Company
Fayetteville Works
22828 NC Highway 87 W
Fayetteville, NC 28306

February 6, 2019

Michael Abraczinskas
Director, Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
michael.abraczinskas@ncdenr.gov

Re: Submission Pursuant to Proposed Consent Order Paragraph 7

Dear Mr. Abraczinskas,

As you are aware, pursuant to the requirements of Paragraph 7 of the proposed Consent Order, in late 2018 Chemours completed installation of two major projects to substantially reduce emissions of GenX Compounds from the Vinyl Ethers North (“VEN”) facility at Fayetteville Works: the Second Phase Scrubber, and the VEN Carbon Adsorber Project. Although the proposed Consent Order has not yet been entered by the Court, Chemours has continued to proceed on the schedule set forth in the proposed Consent Order with respect to the requirements in Paragraph 7 and to provide notice as set forth in the proposed Consent Order.

Paragraph 7.a states: “On or before February 6, 2019, Chemours shall submit a report to DAQ demonstrating that the Second Phase Scrubber operates with a minimum control efficiency of 72% for GenX Compounds.” Paragraph 7.b.iii, in turn, states: “Within ninety (90) days of installation [installation was completed December 26, 2018], Chemours shall submit a report to DAQ demonstrating that the Vinyl Ethers North Carbon Adsorber Unit operates with a minimum control efficiency of 93% for GenX Compounds.”

Pursuant to these provisions, Chemours is hereby submitting to the Division of Air Quality (“DAQ”) the enclosed report from Weston Solutions, Inc. (“Weston”) entitled “Fluoromonomers Manufacturing Process Scrubber Efficiency Test Report, Test Dates: 6 and 7 December 2018” (“December 2018 Scrubber Report”), as well as draft results from Weston for carbon inlet, carbon outlet, and stack testing conducted on January 16 and 17, 2019 (“Draft January 2019 Carbon Results”). Chemours received the Draft January 2019 Carbon Results just yesterday and will submit the final report to DAQ within the next week.

Draft January 2019 Carbon Results

I am pleased to report that the Draft January 2019 Carbon Results show an average 93.9% control efficiency of the VEN Carbon Adsorber Unit for GenX Compounds, in compliance with the proposed Consent Order’s 93% requirement. These results, which were measured during a PSEPVE product campaign, also show an average 95.5% reduction of stack emissions of GenX Compounds as compared to baseline PSEPVE stack testing conducted in March 2018 (thus showing the combined emission reduction benefits of the VEN Carbon Adsorber Unit and Second Phase Scrubber). Additionally, the average emissions measured at

the Carbon Adsorber Unit inlet during the January testing were 80% lower than the stack emissions measured during the March 2018 baseline PSEPVE testing. Because the emissions entering the Carbon Adsorber Unit inlet are predominantly comprised of process emissions exiting the Second Phase Scrubber (there is a very small additional contribution to the carbon inlet from indoor air), this 80% reduction serves as an approximation of the control efficiency of the Second Phase Scrubber.

Furthermore, since installation, the VEN Carbon Adsorber Unit has had substantially less unit downtime (as necessary for safety and maintenance) than we predicted when we calculated that we could meet the 92% facility-wide emissions reduction of GenX Compounds for 2019 in the proposed Consent Order. Specifically, we calculated that we could meet a 92% facility-wide emissions reduction with a prediction of 25% downtime of the VEN Carbon Adsorber Unit. Since the VEN Carbon Adsorber Unit was installed in December, actual downtime has been below 3%, meaning that emissions are being controlled even further.

December 2018 Scrubber Report

With regard to the testing of the Second Phase Scrubber in December 2018, we encountered significant technical challenges with the testing. The stack testing team was not able to capture all of the emissions entering the scrubber inlet, due to technical challenges that we have previously discussed with DAQ. These challenges have included the fact that the air flow involved is not isokinetic and the challenges in finding an appropriate sampling port. As a result, the emissions measured at the inlet, which was before either scrubber, were actually lower than those measured at the outlet, which means that we cannot calculate a control efficiency by comparing these measurements. We are continuing to study and refine the methods for testing at the scrubber inlet, so that we can collect more reliable data there.

While the optimal way to measure control efficiency is to compare the emissions measured at the scrubber inlet with those measured at the scrubber outlet on the same testing run, and we cannot do that with the December testing, we can roughly estimate control efficiency by comparing outlet results from different stack testing events. But this is an imprecise method, because of significant variability between testing events. Within a product campaign, there are several operating conditions that may impact emissions, and the relative variation in emissions is magnified when the levels measured are very small, as they are here. This was seen in the results of the three runs of the scrubber outlet testing done in December, which showed substantial variability.

In December, the testing was done during a PPVE campaign. If we compare the outlet results from the December testing to the PPVE outlet results from the testing we conducted back in January 2018, one of the runs showed over a 72% reduction but the other two showed less, with a 45% reduction when we compare the average across the testing runs. So, to summarize, the results from the Second Phase Scrubber testing done in December are inconclusive, and there were significant technical challenges.

Later this month, we will be conducting a number of stack tests during a PPVE campaign at VEN, including during varying operating scenarios. And beyond that, we are planning a robust testing program where we conduct more runs and further assess the impacts of differing operating scenarios, so that we can have a more complete data set for more precisely evaluating the efficiency of the Second Phase Scrubber.

We have no reason to believe that the Second Phase Scrubber is not working as we expected. The January testing further demonstrates the substantial combined emission reduction benefits of the VEN Carbon Adsorber Unit and Second Phase Scrubber, and provides an approximation of 80% control efficiency of the Second Phase Scrubber. The rainfall data we have been collecting and sharing with you also demonstrates the effectiveness of our interim emission control technologies, as GenX concentrations have dropped substantially since we implemented our interim technologies starting last May.

If you have any questions, please contact me.

Sincerely,



Brian D. Long
Plant Manager
Chemours – Fayetteville Works

Enclosures:

Fluoromonomers Manufacturing Process Scrubber Efficiency Test Report, Test Dates: 6 and 7 December 2018 (“December 2018 Scrubber Report”)

Draft Carbon Inlet, Carbon Outlet, and Stack Test Results, Test Dates: 16 and 17 January 2019 (“Draft January 2019 Carbon Results”)

Cc:

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