Air Quality
ENVIRONMENTAL QUALITY

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL A. ABRACZINSKAS
Director

March 25, 2018

Beverly Banister, Director
Air, Pesticides, and Toxics Management Division
United States Environmental Protection Agency
Region4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Subject: **North Carolina Department of Environmental Quality- Division of Air Quality Request for Assistance from EPA Office of Research and Development Assessing Targeted and Non-Targeted Poly- and Perfluoroalkyl Substances**

Dear Ms. Banister,

The North Carolina Department of Environmental Quality (DEQ)-Division of Air Quality (DAQ) is requesting assistance in performing targeted and non-targeted analyses of poly- and perfluoroalkyl substances (PFAS) in industrial air emissions taken directly from the stacks located at the Chemours facility in Fayetteville North Carolina. The Chemours facility (formerly DuPont) has historically released PFAS into the environment and has contaminated soil and water, including groundwater and river water used as drinking water for hundreds of thousands of North Carolinians.

The DAQ has required Chemours to develop a test methodology to capture and quantify the PFAS compound GenX. The DAQ is requiring the facility to source test for GenX from all of their process areas and to provide split samples of the testing to the DAQ for independent analysis. The DAQ communicated with EPA Region 4 in January and offered the split samples to EPA for analysis. The Science and Ecosystem Support Division (SESD) lab in Athens, Georgia has been, and continues to, perform analysis of PFAS and GenX in river water samples for DEQ and has agreed to perform a similar analysis on Chemours air emissions split samples forDAQ.

The DAQ realizes that the SESD has a specific purpose and excels at measuring targeted known contaminants. Therefore, we have also reached out to the EPA's Office of Research and Development (ORD) lab in RTP, NC. In conversations with ORD lab staff and management, we have learned that the ORD has the ability to test for not only targeted pollutants, but to also analyze a sample and determine what known or unknown contaminants may be in the sample.

ORD management suggested that we route requests for assistance through the EPA regional office.

Assistance from the EPA is needed to test for environmental contaminants that are being released to the air and impacting North Carolinians and the environment. EPA's assistance is needed in the following areas:

- Determining the appropriate sampling and analytical techniques for measuring stack emissions:
    - Test method development
    - Test method review
    - Test plan and approaches consultation
    - Additional measurement issues

- Qualitative analysis of split samples (MM5 train extracts) to identify target and non-target PFAS compounds:
    - Identify the PFAS chemicals emitted
    - Help identify what compounds should be targeted for measurement

- Help understand the environmental fate and transport of GenX and other PFAS chemicals released to the air, including, if possible, deposition and groundwater intrusion:
    - Is there atmospheric conversion of HFPO
    - Are there other chemical transformations of concern

- Prioritize which contaminant(s) need a risk assessment based on what is actually being measured in the environment via the air emission pathway.

The volume of work will be determined by the testing programs and number of samples per run. The DAQ is requiring split samples after extraction of each test run at each process / campaign / batch being tested. We would like to instruct Chemours and their test contractors to ship the split samples after extraction to the EPA's ORD laboratory. EPA ORD lab staff and Chemours contractors will need to exchange information such as the volume of sample material, the method of extraction and other necessary laboratory specifications.

The DAQ requests this assistance in order to quantify the contaminants that are known to be emitted and to identify other contaminants that are emitted by the processes. The emissions estimates from the facility have fluctuated as the testing program has commenced in January 2018. The DAQ needs this evaluation to better understand the historic impact ohhe operations and better estimate atmospheric deposition and its contribution to groundwater contamination. The evaluation will also provide information on the most appropriate levels of control that will be required to minimize environmental impacts.

We greatly appreciate your assistance on this matter. We look forward to our continued partnership in successfully addressing these emerging air contaminants. Please do not hesitate to contact me [HYPERLINK "mailto:(Michael.Abraczinskas@ncdenr.gov" \h]919-707-8447) or Michael Pjetraj [HYPERLINK "mailto:(Michael.Pjetraj@ncdenr.gov" \h]919-707-8497) should you have any questions.

Sincerely,

Michael A. Abraczinskas, Director
NC Division of Air Quality, NCDEQ

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