



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

October 25, 2022

Sushma Masemore  
Assistant Secretary  
N.C. Department of Environmental Quality  
1601 Mail Service Center  
Raleigh, NC 27699-1601  
[sushma.masemore@ncdenr.gov](mailto:sushma.masemore@ncdenr.gov)

Re: DEQ Approval of Barrier Wall and Groundwater Extraction System 90% Design Report

Dear Ms. Masemore,

On March 25, 2022, Chemours submitted for DEQ review and approval its Barrier Wall and Groundwater Extraction System 90% Design Report (the “90% Design Report”) pursuant to Paragraph 3.b. of the Consent Order Addendum. The 90% Design Report was prepared by Chemours’s consultants, Geosyntec Consultants of NC, P.C. and GEOServices, LLC.

Under the Addendum, DEQ is to review the 90% Design Report to determine whether it is “consistent with the objectives” of the Consent Order. On September 15, 2022, DEQ sent a letter and attachments “approving” the 90% Design Report “with specific conditions that shall be addressed by Chemours.” In response to DEQ’s letter, Chemours agrees to the additions, modifications, and clarifications in the list below to address DEQ’s conditions for approval, and Chemours hereby incorporates these items into the 90% design. We respectfully ask that DEQ provide its unconditional approval of the 90% design, as supplemented with the items listed below, so that the project can proceed.

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Chemours’s Supplementation of 90% Design to Address DEQ’s Conditions for Approval:

*Conditions Relating to Performance Monitoring*

*1. Installation of additional monitoring wells:*

- Chemours will attempt to install four shallow Willis Creek observation wells by hand auger, which cannot be guaranteed. Chemours will consult with DEQ on their locations. If the wells cannot be installed by hand auger, Chemours will discuss with DEQ feasible alternatives.
- Chemours will install the two Black Creek Aquifer observation wells with a one-inch diameter (to be consistent with other wells for the Performance Monitoring Plan (“PMP”) system).

- With respect to sampling/monitoring frequency, Chemours will sample the four Willis Creek wells, if they can be installed by hand auger, using low flow sampling methods and on a semi-annual (twice per year) basis. The two Black Creek Aquifer wells will be used for hydraulic head evaluation purposes only (consistent with the other paired observation wells that are spaced regularly across the alignment just downgradient of the barrier wall).
- Chemours will also replace monitoring wells PIW-9S and PIW-9D, which are being removed to facilitate construction of the project, will sample the replacement wells on a semi-annual (twice per year) basis, and will include such sampling in the PMP.

*2. Sampling of extraction wells:*

- Chemours will perform the sampling as requested (before well startup, one month after startup, 12 months after startup, and 24 months after startup).

*3. Use of additional existing wells for performance monitoring:*

- Chemours will sample the downgradient wells identified in DEQ's comment twice per year.

*4. Use of Passive Flux Meters Not Approved:*

- Chemours will not use passive flux meters for measuring the mass flux of PFAS compounds in the PMP.

*5. Severe Weather Monitoring:*

- Chemours will deploy transducers in each extraction well, which can be monitored in real-time, including during any severe weather event.

*Conditions Related to Groundwater Modeling*

- In the September 15<sup>th</sup> letter, DEQ requested some additional modeling activities on a specified schedule. Chemours requests that the issue of additional modeling activities be addressed apart from the 90% design and construction of the project and that DEQ approve the 90% design without any conditions related to additional modeling activities.

*General Conditions and Information Requests*

*1. Collection of Seep and Weep Flow Data:*

- For areas upgradient of the barrier wall, Chemours will use flow gauges for surface water captured by the remedy.
- For areas downgradient of the barrier wall, Chemours will monitor flows at the flow-through cell locations. Additionally, Chemours will attempt to add one monitoring location on the Willis Creek tributary, but this location is challenging.

2. *Management of contaminated groundwater during barrier wall construction:*

- During barrier wall construction, Chemours will continue to treat PFAS-containing waters that originated as groundwater using the seep flow-through cells.
- Saturated soils generated during construction will be managed as specified in Chemours's Soil Management Plan.
- Chemours will not pump groundwater for the purposes of barrier wall construction.

3. *Soil-bentonite mix design:*

- Chemours will perform testing and sampling activities of the barrier wall mixture during wall construction as set forth in the Barrier Wall Construction Quality Assurance Plan ("CQA Plan") submitted to DEQ on October 13, 2022.

4. *Construction Quality Assurance (CQA) Testing:*

- Chemours provided the requested table in the CQA Plan submitted to DEQ on October 13, 2022.

5. *Ex Situ Capture Remedy Plan Update:*

- Chemours provided the plan view of the weeps and seep catch basins in a submission to DEQ on September 1, 2022.

6. *Sufficiency of Compressive Strength:*

- Chemours provided to DEQ on October 20, 2022 a letter that charted permeability values as a function of cement content that were obtained during the mix design process.

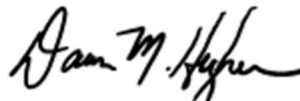
7. *Shear Stress Analysis:*

- Chemours will perform testing and sampling activities of the barrier wall mixture during wall construction as set forth in the CQA Plan submitted to DEQ on October 13, 2022.
- Following construction, if PMP testing indicates a potential issue, Chemours can make repairs to the wall (for example, by adding an additional layer to the wall).

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Please let me know if you would like to discuss any of this further.

Sincerely,



Dawn M. Hughes  
Plant Manager  
Chemours – Fayetteville Works