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Sheila Holman
N.C. Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699

Re: Effectiveness of Chemours' Implementation of PFAS Mass Loading Measures

Assistant Secretary Holman:

I am writing to express CFPUA's appreciation for your staff's focus on Chemours' compliance with the Consent Order, as evidenced by the Notice of Violation issued on January 26. I also want to express concerns about the apparent ineffectiveness of measures Chemours has taken so far to reduce the mass loading of its PFAS into the Cape Fear River, including recent revelations about Seep C that have not yet been publicly addressed.

It appears that, with regard to treatment of discharge from Old Outfall 002 (Outfall 003) and the flow-through cell installation at Seep C, Chemours is falling significantly short of consistently achieving the operational and PFAS-removal benchmarks stipulated in the Addendum to Paragraph 12 of the Consent Order.

As your staff detailed in a Notice of Violation issued to Chemours on January 26, the treatment system for Old Outfall 002 "was not properly designed to meet the requirements of the Consent Order to capture dry weather flow and treat it to at least 99% removal efficiency for the indicator parameters, GenX and PFMOAA. This design failure is shown, for example, by the inability of the treatment system to properly manage sediment loading, resulting in multiple days where the system failed to capture dry weather flow and periods where the system was completely shut down."

Some parties to the Consent Order reportedly have sought to spin the violations as signifying "a big step in the right direction," stating that Chemours only just missed the mark because it removed 98 percent of PFMOAA rather than the required 99 percent. Obviously, however, the treatment system is achieving *no* removal of PFMOAA or any PFAS when it is "completely shut down."

According to the Paragraph 12 Addendum, the flow-through cell treatment at Seep C was to begin operation by November 16, 2020. CFPUA was informed that the operation of Seep C treatment was impeded on December 26, 2020, on January 3, 2021, and on February 2, 2021, after being

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overwhelmed by rising water in the Cape Fear River. Chemours indicated that it took three days following the December 26 event before the Seep C flow-through cell treatment was returned to operation.

These operational failures lead us to wonder how Chemours could have neglected to adequately account for the effects that heavy rains and higher than normal river levels might have on the seep treatment. After all, Chemours and DuPont have operated in this location for almost a half-century, during which they surely would have experienced heavy rains and rising water on numerous occasions.

For example, using historical data from the U.S. Geological Service on the daily average height of the flood gauge at the William O. Huske Lock and Dam, CFPUA staff have estimated that the river level would have been as high or higher than the levels that caused flooding in December 2020 and January and February 2021 on at least 19 days in 2020.

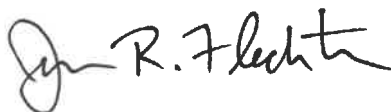
For CFPUA and its customers, Chemours' failures are particularly concerning given that, according to Chemours' own data, Old Outfall 002 and the four seeps (designated A, B, C, and D in the Consent Order) are responsible for more than 75 percent of the mass loading of Chemours' PFAS into the Cape Fear River. Our analysis of data from our own monitoring of PFAS in raw water point to the failure of measures at Old Outfall 002 and Seep C to reduce PFAS mass loading in any meaningful way. Table 3+ mass loading has barely budged since October 1, when treatment at Old Outfall 002 was to begin operation; mass loading of PFMOAA has actually *increased*.

It would be helpful if you provide us with:

- An update on the steps Chemours is being required to take to address the operational shortfalls in treatment at Old Outfall 002 treatment and Seep C;
- Information describing how the upcoming flow-through cell installations for Seeps A, B, and D will address the flooding problems encountered at Seep C;
- Deadlines by which the steps in the previous two items are to be implemented; and
- Analytical results of sampling at these sites that demonstrate their effectiveness.

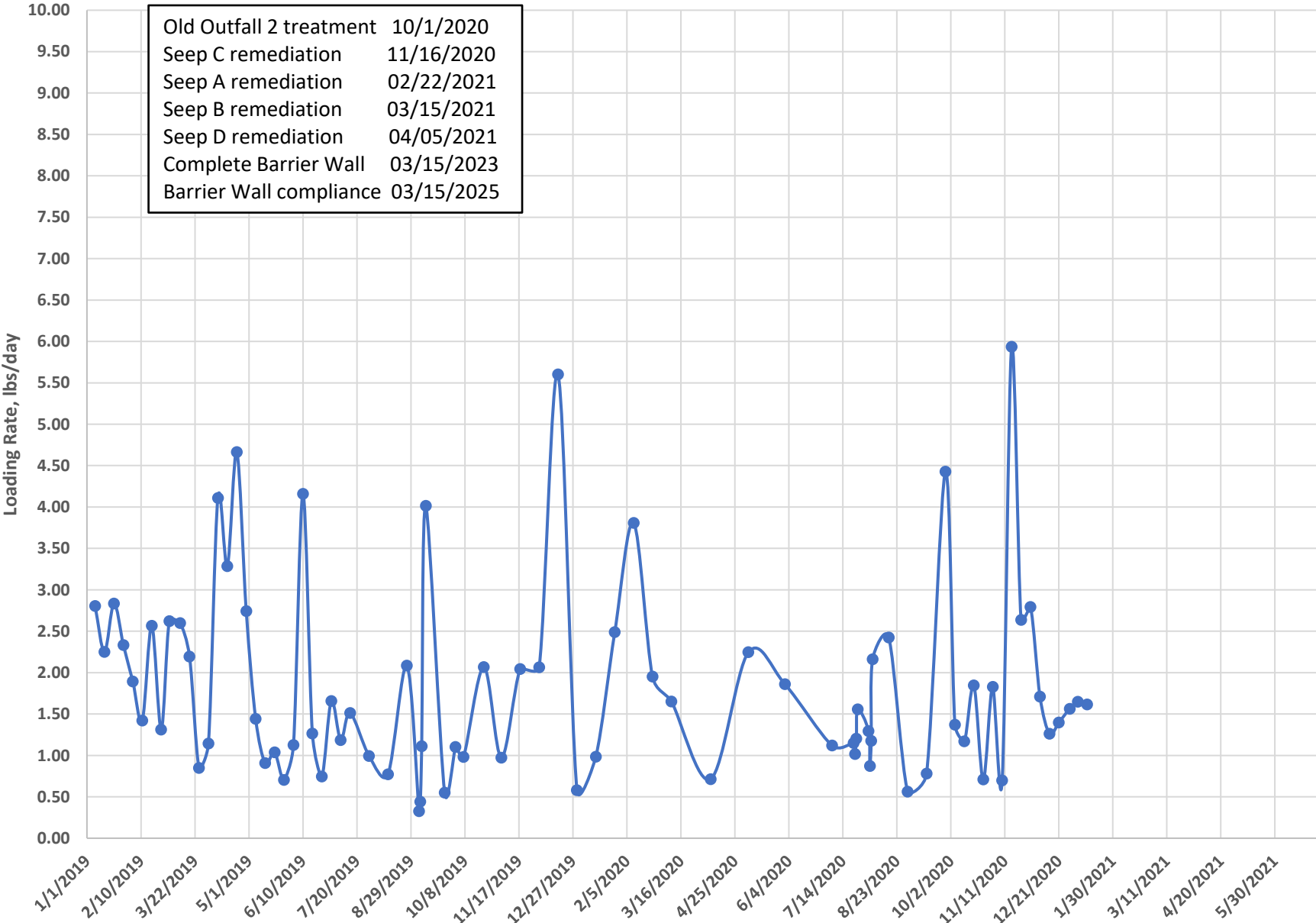
Our customers continue to be affected by Chemours' PFAS. We were assured that the measures outlined in the Paragraph 12 Addendum would significantly and expeditiously reduce mass loading of Chemours' PFAS in the Cape Fear River. From what we can see using our own data through mid-January, Chemours does not appear to be consistently delivering on the Addendum's promises.

Regards,



James R. Flechtner, PE
Executive Director

Table 3+ Mass Loading Rate (w/o new compounds), lbs/day



PFMOAA Mass Loading Rate, lbs/day

