



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
1650 Arch Street
Philadelphia, PA 19103-2029

REGION V
77 West Jackson Boulevard
Chicago, IL 60604

IN THE MATTER OF:
The Chemours Company
and
E. I. du Pont de Nemours and Company
1007 Market Street
Wilmington, DE 19898
Respondents.
Washington Works Facility
Route 892 South
Washington, WV 26181

FIRST AMENDMENT TO ORDER ON CONSENT

Proceeding under Section 1431(a)(1) of the Safe Drinking Water Act, 42 U.S.C. § 300i(a)(1)

Docket Nos. SDWA-03-2009-0127-DS SDWA-05-2009-0001

FIRST AMENDMENT TO ORDER ON CONSENT

WHEREAS, on March 10, 2009, E. I. du Pont de Nemours and Company ("DuPont") and the United States Environmental Protection Agency ("EPA") entered into an Administrative Order on Consent (Docket Nos. SDWA-03-2009-0127-DS and SDWA-05-2009-0001) (the "Consent Order") pursuant to Section 1431(a)(1) of the Safe Drinking Water Act, 42 U.S.C. § 300i(a)(1), under which DuPont offered and/or provided, inter alia, temporary and/or permanent alternate drinking water supplies to public and private water systems in the vicinity of a manufacturing facility known as the Washington Works (the "Facility") located in Wood County, West Virginia where perfluorooctanoic acid ("PFOA") was detected in finished water systems at concentrations equal to or greater than 0.40 micrograms per liter ("µg/L") or parts per billion ("ppb"); and

WHEREAS, on or about February 1, 2015, The Chemours Company ("Chemours") was formed as a wholly-owned subsidiary of DuPont and took over ownership and operation of the Facility; and

WHEREAS, DuPont currently leases a portion of the Facility from Chemours and continues to operate the following production units on that portion of the Facility under a State-issued Title V operating permit: Acetal Resin Production, Nylon Resins Production, Engineering Polymers Compounding Production - East, Specialty Compounding Production, Filaments Production and Development and Laboratory Services (Title V Permit R30-10700001 Parts 3, 5, 6, 8, 9, and 13); and

WHEREAS, on or about July 1, 2015, Chemours became an independent publicly-traded company, and, in accordance with various transaction documents relating to the corporate reorganization between DuPont and Chemours, has been implementing the requirements of the Consent Order since that time; and

WHEREAS, DuPont remains a Respondent to the Consent Order; and

WHEREAS, DuPont for more than ten years and Chemours since its formation in 2015 have worked cooperatively with EPA in providing water treatment to local communities in the vicinity of the Facility. As of June 30, 2016, DuPont and Chemours had installed and are maintaining seven granulated activated carbon treatment ("GAC Treatment") systems for six public water supply systems. In addition, DuPont and Chemours have offered connection to a public water system, installation of a GAC Treatment system, installation of another EPA-approved form of treatment, or bottled water (where connection to a public water system, installation of a GAC Treatment system, or installation of an alternative EPA-approved form of treatment was not feasible) to owners of residences using private water systems. As of June 30, 2016, DuPont and Chemours had connected 57 private water systems to a public water system, had installed and are operating GAC Treatment at approximately 61 private water systems, and are providing bottled water on a long-term basis to 5 private water systems; and

WHEREAS, EPA's findings in Section IV of the Consent Order reflect data and information available as of 2009; and

WHEREAS, based upon current science; changed circumstances; new, site-specific information; and EPA's issuance of a Lifetime Health Advisory value for PFOA on May 19, 2016,¹ EPA and DuPont wish to amend certain provisions of the Consent Order as set forth herein, and to add Chemours as a Respondent to the Consent Order; and

NOW THEREFORE, upon the consent and agreement of DuPont, Chemours, and EPA, it is hereby agreed as follows:

¹ United States Environmental Protection Agency's Office of Water, *Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA)* (including *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)*) (EPA, 2016). Available at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

1. The term "Order" shall be replaced with the term "Consent Order" in Paragraphs 1 through 55 and Paragraphs 57 through 60 of the Consent Order except in the phrase "Order on Consent" in Paragraphs 1 and 21 of the Consent Order.
2. Paragraph 4 in the Consent Order shall be revised as follows: The Chemours Company ("Chemours") and E. I. Du Pont de Nemours and Company ("DuPont") (collectively, "Respondents") consent to EPA's jurisdiction to issue this Consent Order. Chemours and DuPont do not admit to the EPA Findings in this Consent Order and agree to ensure performance of the work set forth in this Consent Order.
3. Paragraph 5 in the Consent Order shall be revised as follows: Chemours and DuPont waive any defenses they might have as to jurisdiction and venue and agree not to contest any of the findings of fact or conclusions of law herein in any action to enforce this Consent Order. Except as to any proceeding brought by EPA to enforce this Consent Order, in agreeing to this Consent Order, Chemours and DuPont make no admission of fact or law, and reserve all rights and defenses available regarding liability or responsibility in any other legal proceeding related to the subject matter of this Consent Order. The findings of fact and conclusions of law contained herein are for purposes of this Consent Order only. Chemours and DuPont further waive any rights to appeal this Consent Order that would be otherwise applicable under the SDWA, including under Section 1448(a) of the Safe Drinking Water Act, 42 U.S.C. § 300j-7(a).
4. Paragraph 8 in the Consent Order shall be revised as follows: For purposes of this Consent Order, PFOA or C-8 is perfluorooctanoic acid, CAS # 335-67-1, and its salts, including ammonium perfluorooctanoate, CAS # 3825-26-1 ("APFO"). These are man-made perfluorinated compounds that do not occur naturally in the environment.
5. The following definition shall be added to Section III (Definitions and Background) of the Consent Order as Paragraph 14a: "EDD" format is Electronic Delimited Data format for submission of all analytical data.
6. The following definition shall be added to Section III (Definitions and Background) of the Consent Order as Paragraph 14b: "Alternate drinking water supply" shall mean: water from a source acceptable to EPA that meets the water quality requirements of 40 C.F.R. Part 141 and that contains PFOA at a concentration not exceeding 0.07 ppb in finished water where applicable; is in sufficient quantity for drinking and cooking; and is provided in a manner convenient to the users.
7. The following definition shall be added to Section III (Definitions and Background) of the Consent Order as Paragraph 14c: "Temporary alternate drinking water supply" shall mean: an alternate drinking water supply that is provided on a temporary or short-term basis. A temporary alternate drinking water supply includes bottled water and bulk tanks of water that have been approved by the state or local health department(s) (e.g., water buffalos).

8. The following definition shall be added to Section III (Definitions and Background) of the Consent Order as Paragraph 14d: "Permanent alternate drinking water supply" shall mean: an alternate drinking water supply that is provided on a permanent or long-term basis. A permanent alternate drinking water supply includes, but is not limited to, connection of a private water system to a public water system or installation of a granulated activated carbon water treatment ("GAC Treatment") system at a public or private water system.

9. Paragraph 15 in the Consent Order shall be revised as follows: Chemours and DuPont are both corporations and therefore are "persons" within the meaning of Section 1401(12) of the SDWA, 42 U.S.C. § 300f(12).

10. Paragraph 16 in the Consent Order shall be revised as follows: Between 1948 and 2015, DuPont owned and operated a manufacturing facility known as the Washington Works ("Facility"), located in Washington, Wood County, West Virginia. On or about February 1, 2015, Chemours was formed as a wholly-owned subsidiary of DuPont and took over ownership and operation of the Facility. DuPont currently leases a portion of the Facility from Chemours and continues to operate the following production units on that portion of the Facility under a State-issued Title V operating permit: Acetal Resin Production, Nylon Resins Production, Engineering Polymers Compounding Production - East, Specialty Compounding Production, Filaments Production and Development and Laboratory Services (Title V Permit R30-10700001 Parts 3, 5, 6, 8, 9, and 13). On or about July 1, 2015, Chemours became an independent publicly-traded company and, in accordance with various transaction documents relating to the corporate reorganization between DuPont and Chemours, has been implementing the requirements of the Consent Order since that time. DuPont remains a Respondent to the Consent Order.

11. Paragraph 17 in the Consent Order shall be revised as follows: DuPont used C-8, in the form of APFO, in its manufacturing processes at the Facility between the early 1950s and 2013.

12. In Sections V (Order on Consent) and VI (General Provisions) of the Consent Order, all references to "DuPont" shall be replaced with the term "Respondents" unless otherwise indicated herein.

13. Paragraph 42 of Section V (Order on Consent) of the Consent Order shall be removed and replaced with the following: Pursuant to the authority given to the EPA Administrator by Section 1431(a)(1) of the SDWA, 42 U.S.C. § 300i(a)(1), and delegated to the Regional Administrators, Respondents are ORDERED and hereby consent to ensuring performance of the work as follows in response to EPA's determination in Paragraph 39, above:

- a) Provision of Temporary Alternate Drinking Water to Private Water Systems with Existing Sampling Data. For those private water systems where existing validated data demonstrates levels of PFOA above 0.07 ppb² in their finished water, Respondents shall

² United States Environmental Protection Agency's Office of Water, "Drinking Water Health Advisory for

offer a temporary alternate drinking water supply as soon as practicable, but in any event no later than fourteen (14) days after the Effective Date. Respondents may offer to resample such private water systems to confirm existing sampling results. If the resident using the private water system accepts the offer of resampling and validated data from such resampling demonstrate that levels of PFOA are at or below 0.07 ppb in the finished water, Respondents shall resample the private water system on a quarterly basis to demonstrate to the satisfaction of EPA that the source water contains PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters. If the source water contains concentrations of PFOA greater than 0.07 ppb, Respondents shall continue to offer a temporary alternate drinking water supply until one or more of the following circumstances have been met: (i) Respondents fully implement the Model Water Treatment Plan, which has been approved by EPA and is attached hereto as Exhibit A; or (ii) the resident declines the offers for temporary or permanent alternate drinking water supplies or resampling; or (iii) the resident is non-responsive to the offers of temporary or permanent alternate drinking water supplies or resampling (as determined by EPA); or (iv) until Respondents demonstrate to the satisfaction of EPA that the source water contains concentrations equal to or less than 0.07 ppb of PFOA for four consecutive quarters; or (v) the conditions of Paragraph 59 have been met. Respondents shall be responsible for all costs of the provision of temporary or permanent alternate drinking water supplies.

- b) Provision of Temporary Alternate Drinking Water – Public Water Systems with Existing Sampling Data. For those public water systems where existing validated data demonstrates levels of PFOA above 0.07 ppb in their finished water, Respondents shall offer a temporary alternate drinking water supply as soon as practicable, but in any event no later than fourteen (14) days after the Effective Date. Respondents shall offer a temporary alternate drinking water supply until they can fully implement the Model Water Treatment Plan, which has been approved by EPA and is attached hereto as Exhibit A, or the public water system either declines the offer of a permanent alternate drinking water supply or is non-responsive to the offer of a permanent alternate drinking water supply (as determined by EPA). Respondents shall be responsible for all costs of the provision of temporary or permanent alternate drinking water supplies.
- c) Provision of Temporary Alternate Drinking Water – Variances. Respondents may provide bottled water or bulk tanks of water (e.g., water buffalos) as a temporary alternate drinking water supply without seeking prior approval from EPA. If Respondents intend to provide a temporary alternate drinking water supply other than bottled water or bulk tanks of water, Respondents shall submit a plan for a variance to EPA for its review and approval (“Variance”). If EPA approves the Variance in writing, Respondents may implement the approved Variance, so long as bottled water or water in bulk tanks is provided until such time as the Variance is fully operational and

demonstrated to be effective in providing potable drinking water containing PFOA at levels equal to or below 0.07 ppb.

- d) Provision of Alternate Drinking Water – Declined or No Response to Offers for Sampling or Treatment. Within fourteen days (14) days after the Effective Date, Respondents shall provide a list to EPA of all public or private water systems that previously declined or did not respond to offers of temporary or permanent alternate drinking water supplies. Respondents shall also include in each quarterly progress report required to be submitted to EPA under Paragraph 43 an updated list of all public and private water systems that have declined or not responded to offers of temporary or permanent alternate drinking water supplies. In addition, Respondents shall include on such list any public or private water systems that receive offers of sampling pursuant to Paragraphs 42(a), 42(g) or 42(i) but decline or do not respond to such offers. Within thirty (30) days after the Effective Date and annually thereafter, Respondents shall contact those public and private water systems on the most current version of the list submitted to EPA as described above to seek each water system's current response regarding sampling or provision of temporary or permanent alternate drinking water supplies. If at any time an offer to sample is accepted, then Respondents shall follow the provisions set forth in Paragraph 42(g) and the water system shall be removed from the list being maintained pursuant to this Paragraph 42(d) unless the water system declines or fails to respond to an offer of temporary or permanent alternate drinking water supplies. If at any time an offer to provide a temporary alternate drinking water supply is accepted, then Respondents shall provide a temporary alternate drinking water supply as soon as practicable, but in any event no later than fourteen (14) days after the offer is accepted, and follow the provisions of Paragraphs 42(a) and (b), as applicable. Such water system shall be removed from the list being maintained pursuant to this Paragraph 42(d) unless the water system declines or fails to respond to an offer of a permanent alternate drinking water supply. If at any time an offer to provide a permanent alternate drinking water supply is accepted, then Respondents shall implement the Model Water Treatment Plan, which has been approved by EPA and is attached hereto as Exhibit A, for such water system and the water system shall be removed from the list being maintained pursuant to this Paragraph 42(d). Respondents shall be responsible for all costs of the provision of a temporary or permanent alternate drinking water supply.
- e) New and Existing Private Water Systems Receiving Treatment. For private water systems at which Respondents have already installed or will install GAC Treatment, Respondents shall provide for operation and maintenance of each GAC Treatment system in good working order, including but not limited to, timely replacement of carbon filters, until Respondents demonstrate to the satisfaction of EPA that the source water in the system prior to GAC Treatment contains PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters, or the conditions of Paragraph 59 have been met. Respondents may also elect to satisfy any ongoing obligation under this Paragraph 42(e) by connecting a particular location to a public water system that contains PFOA at concentrations equal to or less than 0.07 ppb in finished water. If Respondents connect a

private water system to a public water system that contains PFOA at concentrations equal to or less than 0.07 ppb in finished water, Respondents shall have no further obligations under this Paragraph 42 with respect to such private water system.

- f) New and Existing Public Water Systems Receiving Treatment. For public water systems at which Respondents have already installed or will install GAC Treatment, Respondents shall provide for operation and maintenance of each GAC Treatment system in good working order, including but not limited to timely carbon bed changes, until Respondents demonstrate to the satisfaction of EPA that the source water in the system prior to GAC Treatment contains PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters, or the conditions of Paragraph 59 have been met. If Respondents connect a public water system to another public water system that contains PFOA at concentrations equal to or less than 0.07 ppb in finished water, Respondents shall have no further obligations under this Paragraph 42 with respect to such public system that was connected to an alternate drinking water supply.
- g) Sampling of Private and Public Water Systems. Respondents shall, in accordance with the scope of work attached hereto as Exhibit B, offer to sample and, if the offer is accepted, sample the finished water at private and public water systems installed between 2009 and 2016 as identified by the county departments of health in Athens, Meigs and Washington Counties in Ohio and in Wood County in West Virginia, provided that such private and public water systems (i) have not been previously sampled, and (ii) are located in the geographic areas in the vicinity of the Facility described in the scope of work attached hereto as Exhibit B. In addition, Respondents shall offer to resample and, if the offer is accepted, resample private and public water systems where existing or new validated data demonstrate that PFOA is present at concentrations above 0.05 ppb but not greater than 0.07 ppb. Respondents shall notify EPA of monitoring results within seven (7) days after the data are validated through Respondents' internal data quality control/quality assurance procedures. Respondents shall also notify owners or operators of private and public water systems of monitoring results within ten (10) days after the data are validated through Respondents' internal data quality control/quality assurance procedures. If an offer to sample or resample is accepted and the sampling results for PFOA are at or below 0.05 ppb, then no additional sampling is required. If an offer to sample or resample is accepted and sampling results show PFOA to be present at concentrations between 0.05 ppb and 0.07 ppb, Respondents shall continue to monitor the finished water for the presence of PFOA on a quarterly basis until Respondents demonstrate to the satisfaction of EPA that the finished water contains PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters, or the conditions of Paragraph 59 have been met. If an offer to sample or resample is accepted and the sampling results show PFOA to be present in finished water at concentrations above 0.07 ppb, Respondents shall offer a temporary alternate drinking water supply as soon as practicable, but in any event no later than fourteen (14) days after the receipt of validated data, and implement the Model Water Treatment Plan, which has been approved by EPA and is attached hereto as Exhibit A, for such water system. If a water

system owner or operator either (i) declines an offer to sample or resample, or (ii) does not respond to an offer to sample or resample within forty-five (45) days after the offer is made, whichever occurs first, Respondents shall notify EPA in writing within ten (10) days thereafter.

- h) Survey, Identification and Sampling of Private and Public Water Systems. As described in the scope of work for new geographic areas defined by EPA (after consultation with West Virginia and Ohio), which scope of work has been approved by EPA and is attached hereto as Exhibit B, Respondents shall conduct a water system survey and sampling of private and public water systems for the presence of PFOA in finished water. Respondents shall commence the initial water system survey of representative systems within seven (7) days after the Effective Date. Where representative sampling results show PFOA to be present at concentrations above 0.05 ppb in finished water at a particular location, Respondents will expand the sampling of private and public water systems in proximity to that location and offer sampling to determine if PFOA is present in finished water at concentrations above 0.07 ppb. In addition, Respondents shall follow the applicable provisions set forth in Paragraph 42(g) after receipt of validated data.
- i) Newly Activated or Permitted Water Systems. Respondents shall, on a quarterly basis following the Effective Date, contact in writing all county departments of health within the geographic areas defined by EPA (after consultation with West Virginia and Ohio and as described in the scope of work attached hereto as Exhibit B) to request that such county departments of health identify any newly activated public or private water systems since the receipt of the prior written request from Respondents. Respondents shall, within seven (7) days after learning of any newly activated public or private water system based on the responses to the written requests to the county departments of health as described above that is located in the geographical areas defined by EPA, offer to sample the water system. If the offer is accepted, Respondents shall follow the applicable provisions set forth in Paragraph 42(g) after receipt of validated data. Respondents shall continue to request that county health departments identify any newly activated public or private water systems in the geographical areas defined by EPA until Respondents demonstrate to the satisfaction of EPA that the USDWs in these geographical areas (or a subset of those areas) contain PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters, or the conditions of Paragraph 59 have been met.
- j) Method. Respondents shall perform all monitoring for PFOA required under this Paragraph 42 using Standard Method 537 as used in the Unregulated Contaminant Monitoring Rule list 3 (UCMR3), or another EPA-approved analytical method.
- k) Implementation of Model Water Treatment Plan. Respondents shall implement the Model Water Treatment Plan, attached hereto as Exhibit A, for any water system whose owner or operator accepts Respondents' offer for a permanent alternate drinking water supply. As soon as practicable, but in any event no later than thirty (30) days after receipt of validated data, Respondents shall act to initiate design of treatment and seek

necessary regulatory permits to facilitate installation of GAC Treatment or an alternative approved by EPA. If an owner or operator of a water system rejects Respondents' offer, either through express rejection or failure to respond within forty-five (45) days after the offer is made, whichever occurs first, Respondents shall inform EPA in writing of this rejection and provide documentation within thirty (30) days after such rejection.

- l) Respondents' Operation and Maintenance Obligations. Respondents have or will execute operation and maintenance agreements ("O&M Agreements") with each water system owner or operator who has accepted the offer for GAC Treatment unless a water system owner or operator does not respond to a request to enter into an O&M Agreement with Respondents or refuses to enter into an O&M Agreement on reasonable terms with Respondents, in which case Respondents shall notify EPA in writing. Respondents will provide for operation and maintenance of the GAC Treatment or an alternative approved by EPA consistent with the specific terms of these O&M Agreements until Respondents demonstrate to the satisfaction of EPA that the concentration of PFOA detected in the water system's source water prior to treatment is equal to or less than 0.07 ppb for four consecutive quarters, or the conditions of Paragraph 59 have been met.
- m) Follow-up Monitoring Following GAC Treatment. After GAC Treatment is terminated, Respondents shall monitor the source water for PFOA annually at EPA-specified public and private water systems for a period of five (5) years.

14. Paragraph 43 in the Consent Order shall be revised as follows: Progress Reports. Respondents shall submit Progress Reports as follows:

- a) Beginning October 1, 2016, and quarterly thereafter, Respondents shall submit to EPA, WVDHHR, WVDEP, OEPA and ODH written reports summarizing all actions taken in response to Paragraph 42 herein ("Progress Reports"). This reporting requirement shall remain in effect until Respondents submit a written request to EPA to submit Progress Reports on an annual basis and EPA approves such a request. Respondents shall continue to submit Progress Reports until such time as EPA provides written notice that the reports are no longer necessary, or this Consent Order is terminated.
- b) All Progress Reports required by this Paragraph shall contain the following certification, which shall be signed by a responsible corporate official of any Respondent performing the work required under Paragraph 42 of this Consent Order and summarized in the Progress Report:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for

gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

c) For purposes of this Consent Order, a responsible corporate official shall be:

(A) a president, secretary, treasurer, or vice-president in charge of a principal business function, or any other person who performs similar policy or decision-making functions for any Respondent performing the work required under Paragraph 42 of this Consent Order; or

(B) the manager of the Washington Works, West Virginia, Facility, so long as authority to sign documents has been delegated in writing to the manager in accordance with corporate procedures.

15. The text of Paragraph 44 in the Consent Order shall be replaced with the phrase [INTENTIONALLY OMITTED].

16. Paragraph 48 of the Consent Order shall be modified only for the following EPA and WVDEP addressees:

As to EPA:

Roger Reinhart,
Compliance and Enforcement Team Leader, Safe Drinking Water
Act
Ground Water and Enforcement Branch
U.S. EPA Region III
1650 Arch Street (3WP22)
Philadelphia, PA 19103-2029

Jennifer Wilson
Environmental Engineer
Ground Water and Drinking Water Branch
U.S. EPA Region V
77 West Jackson Boulevard (WG-15J)
Chicago, IL 60604

As to WVDEP:

Yogesh Patel
Groundwater Protection and Permitting Section
Division of Water and Waste Management

W.Va. Dept. of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

17. Paragraph 49 in the Consent Order shall be revised as follows: This Consent Order and any amendments thereto shall apply to and be binding upon DuPont and Chemours, and their successors and assigns. All references to Respondent or Respondents throughout this Consent Order and any amendments thereto shall include their successor and assigns, as applicable. Respondents shall provide a copy of this Consent Order and any amendments thereto to any contractor retained to perform work required under this Consent Order and any amendments thereto within ten (10) days after the Effective Date or the date of such retention, whichever is later. Respondents shall ensure that any such contractor performs the work in conformity with the terms of this Consent Order and any amendments thereto. In any action to enforce this Consent Order or any amendment thereto, Respondents shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Order and any amendments thereto. Any change in the ownership or corporate status of either Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter either Respondents' responsibilities under this Consent Order and any amendments thereto. In the event of the insolvency of any Respondent or the failure, as determined by EPA, by any Respondent to implement any requirement of this Consent Order and any amendments thereto, the remaining Respondent shall complete all such requirements.

18. The following paragraph shall be added to Section VI (General Provisions) of the Consent Order as Paragraph 49a: Any successor in interest to DuPont shall provide written notice to EPA within ten (10) days of formation of such successor in interest; formation being defined as the initial filing of the General Form for Registration of Securities pursuant to Section 12(b) or 12(g) of the Securities Exchange Act of 1934 ("SEC Form 10" or "Registration Statement") of the successor in interest. In addition, DuPont shall also make as a condition of the transfer of obligations and liability under this Consent Order, and any amendments thereto, an annual requirement for the successor in interest to submit to EPA, when filed with the SEC, a copy of the Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 ("SEC Form 10-K" or "Annual Report") to include the Report of Independent Registered Public Accounting Firm certifying the same. These submittals shall contain financial information sufficient to assess the assets and liabilities of the successor entity. If at any point during the term of this Consent Order, financial information regarding DuPont or the relevant successor is not required to be reported to the SEC through an SEC Form 10-K, such entity shall, at a minimum, submit to EPA within ninety (90) days after the close of its fiscal year a complete copy of its financial statements, audited in conformance with U.S. Generally Accepted Accounting Principles (GAAP) for the last completed fiscal year, and a copy of the independent CPA report on examination of its audited financial statements, or such other verified financial information acceptable to EPA as may be readily available that will enable EPA to ascertain the financial ability of the entity to perform the work. Furthermore, this entity and EPA shall engage in good faith discussions to reach consensus on a process for submitting to EPA on an annual

basis additional mutually acceptable information regarding its financial status. DuPont and its successors shall notify EPA within 30 days when DuPont's obligations and liabilities under this Consent Order are transferred to a different legal entity than that described above, providing the name of the entity, address and, as applicable, financial information as stipulated in this section.

19. Paragraph 51 in the Consent Order shall be revised as follows: This Consent Order shall not relieve Respondents of their obligations to comply with all applicable provisions of federal, state or local law, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state or local permit.

20. Paragraph 53 in the Consent Order shall be revised as follows: The undersigned representatives of Respondents certify that they are fully authorized by Respondents to enter into the terms and conditions of this Consent Order and to execute and legally bind Respondents to it.

21. Paragraph 54 in the Consent Order shall be revised as follows: Pursuant to Section 1431(b) of the SDWA, 42 U.S.C. § 300i(b), and the Adjustment of Civil Monetary Penalties for Inflation, 40 C.F.R. Part 19, as revised (78 Fed. Reg. 66643-48 (Nov. 6, 2013)), the violation of any term of this Consent Order, or failure or refusal to comply with this Consent Order, may subject Respondents to a civil penalty not to exceed \$21,500 for each day in which such violation occurs or failure to comply continues. Future revisions to 40 C.F.R. Part 19 will apply to violations of any term of this Consent Order, or failure or refusal to comply with this Consent Order by Respondents, and may subject Respondents to higher civil penalties.

22. Paragraph 55 in the Consent Order shall be revised as follows: When any Respondent knows or should have known, by the exercise of due diligence, of an event that might delay completion of any requirement of this Consent Order, such Respondent shall provide notice to EPA, in writing, within two (2) business days after any Respondent first knew, or in the exercise of due diligence, should have known, of such event. The notice shall describe in detail the basis for the delay, including whether it is a *force majeure* event, and describe the length of, precise cause(s) of, and measures taken or to be taken to prevent or minimize such delay. If EPA agrees that such event constitutes *force majeure*, EPA shall extend the time for performance of such requirement, in writing, to compensate for the delay caused by the *force majeure* event. Any Respondent's failure to notify in writing in accordance with this Paragraph shall render this Paragraph void and of no effect concerning such event. For purposes of this Consent Order, *force majeure* is defined as an event arising from causes beyond the control of DuPont and/or Chemours, and any entity controlled by DuPont and/or Chemours, which delays or prevents the performance of any obligation under this Consent Order. Unanticipated or increased costs or expenses associated with implementation of this Consent Order and changed financial circumstances shall not, in any event, be considered *force majeure* events. In addition, failure to apply for a required permit or approval or to provide in a timely manner all information required to obtain a permit or approval that is necessary to meet the requirements of this Consent Order, or to obtain or approve contracts, shall not, in any event, constitute *force majeure* events.

23. Paragraph 58 in the Consent Order shall be revised as follows: The effective date of this Consent Order is the date on which, after approval by the Regional Administrators, this Consent Order is filed with the Regional Hearing Clerks of both Region III and Region V. If the Consent Order is amended, the effective date of the Consent Order as amended is the date on which the Region III and Region V Regional Administrators sign the amendment, or, the last date upon which all signatures are obtained if not signed by the Region III and Region V Regional Administrators on the same day. In such circumstances, references to the "Effective Date" shall mean the effective date of this Consent Order as amended as described in this Paragraph 58.

24. Paragraph 59 in the Consent Order shall be revised as follows: This Consent Order and any amendments thereto shall remain in effect until Respondents fulfill their obligations pursuant to Paragraphs 42 and 43 herein, submit a written request to EPA to terminate this Consent Order and any amendments thereto, and EPA approves such termination request.


25. Nothing in this First Amendment to Order on Consent is intended to limit EPA's right, which EPA reserves, to modify the level for PFOA of 0.07 ppb in Paragraph 42 of the Consent Order as amended if information previously unknown to EPA is received and EPA determines that this previously unknown information, together with any other relevant information, indicates that such level may not be protective of human health. Respondents reserve all rights and defenses should EPA take action under this Paragraph. If either (i) EPA establishes a drinking water standard for PFOA, such as a maximum contaminant level, or issues a new Lifetime Health Advisory value for PFOA that revises the Lifetime Health Advisory value for PFOA issued on May 19, 2016, and such standard or value is higher than the level for PFOA of 0.07 ppb in Paragraph 42 of the Consent Order as amended, or (ii) the Lifetime Health Advisory value for PFOA issued on May 19, 2016, is set aside, suspended or eliminated, the parties agree to meet to discuss such changes, including the basis therefor, site specific facts and circumstances, and whether, based on such changes, facts and/or circumstances, the level of PFOA specified in Paragraph 42 of the Consent Order as amended should be modified.

26. The undersigned representatives of Respondents certify that they are fully authorized to enter into the terms and conditions of this First Amendment to Order on Consent and to execute and legally bind DuPont and Chemours to it.

27. This First Amendment to Order on Consent may be executed in any number of counterpart originals, each of which shall be deemed to constitute an original agreement, and all of which shall constitute one agreement. The execution of one counterpart by any party shall have the same force and effect as if that party had signed all other counterparts.

28. The effective date of this First Amendment to Order on Consent is the date on which the Region III and Region V Regional Administrators sign the First Amendment to Order on Consent, or, the last date upon which all signatures are obtained if not signed by the Region III and Region V Regional Administrators on the same day ("Effective Date").

SO ORDERED:


Cecil Rodríguez
Acting Regional Administrator
U.S. Environmental Protection Agency,
Region III

Date: 1/6/2017

SO ORDERED:



Robert A. Kaplan
Acting Regional Administrator
U.S. Environmental Protection Agency,
Region V

Date: 1/5/17

AGREED TO:



[Handwritten signature]
The Chemours Company
Sheryl Telford
Director, Environment, Health, Safety and Remediation

Date: 12/29/16

AGREED TO:



E. I. du Pont de Nemours and Company
Tom A. Ei
Manager of Corporate Remediation

Date: 12-30-2016

Exhibit A
Model Water Treatment Plan

1.0 MODEL WATER TREATMENT PLAN

In 2009, E. I. du Pont de Nemours and Company ("DuPont") and the United States Environmental Protection Agency ("EPA") entered into an Administrative Order on Consent (the "2009 Consent Order") regarding the presence of perfluorooctanoic acid ("PFOA") in certain drinking water supplies. As contemplated in the 2009 Consent Order, DuPont conducted several phases of surveying and sampling of public and private drinking water wells for PFOA in the vicinity of the Washington Works facility located in Wood County near Parkersburg, West Virginia. Over 450 drinking water wells located in West Virginia and Ohio in the vicinity of the Washington Works facility have been sampled for PFOA. In addition, DuPont offered granular activated carbon ("GAC") water treatment technology or a functionally equivalent alternative (as determined by DuPont and approved by EPA) to residents with private water systems containing PFOA at concentrations equal to or greater than 0.40 micrograms per liter (" $\mu\text{g/L}$ ") or parts per billion ("ppb"). This level of PFOA corresponds to the Provisional Health Advisory value for PFOA established by EPA in 2009.

The Chemours Company ("Chemours") now owns the Washington Works facility. Based on current science and changed circumstances, as well as new, site-specific information and the issuance by EPA on May 19, 2016, of a Lifetime Health Advisory value for PFOA of 0.07 ppb, EPA and DuPont have decided to amend certain provisions of the 2009 Consent Order and to add Chemours as a party to the 2009 Consent Order. Under the 2009 Consent Order as amended, Chemours is, among other things, offering to install GAC water treatment technology or a functionally equivalent alternative (as determined by Chemours and approved by EPA) for public and private water systems where validated sampling results show that PFOA is present at concentrations greater than 0.07 ppb.

This Model Water Treatment Plan has been developed to describe the manner in which treatment of drinking water at qualified locations will be implemented consistent with the requirements of the 2009 Consent Order as amended. Consistent with the requirements of Paragraph 42 of the 2009 Consent Order as amended, model water treatment plans for GAC treatment and for alternative treatment for both private and public water systems are described in the sections that follow. DuPont and Chemours are identified as Respondents in the 2009 Consent Order as amended. While this Model Water Treatment Plan describes actions that Chemours expects to take, references herein to Chemours should be understood to include DuPont if DuPont is implementing the provisions of the Model Water Treatment Plan pursuant to the 2009 Consent Order as amended. If any provision of this Model Treatment Plan conflicts with any provision in the 2009 Consent Order as amended, the 2009 Consent Order as amended will control.

EPA divides public water systems into "community water systems" and "non-community water systems."¹ Typically, large public water supply systems qualify as community

¹ EPA's regulations implementing the Safe Drinking Water Act define a public water system as "a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year." 40 C.F.R. § 141.2. EPA further divides public water systems into two categories referred to as "community water systems" and "non-community water systems." A "community water system" is defined as "a public water system which serves at least 15 service connections used by

water systems and smaller public water systems (such as businesses, restaurants and churches) qualify as non-community water systems. Non-community water systems are further classified by EPA as non-transient non-community water systems ("NTNCWSs") and transient non-community water systems ("TNCWSs"). If validated data show that PFOA is present in a non-community water system at a concentration exceeding 0.07 ppb, thereby qualifying the non-community water system for GAC treatment or a functionally equivalent alternative (as determined by Chemours and approved by EPA), the non-community water system, whether an NTNCWS or a TNCWS, may be addressed in the same manner as a private water system. For example, a drinking water well at a gas station or church may be treated as if it is a private drinking water well for purposes of this Model Water Treatment Plan even if it otherwise qualifies as an NTNCWS or a TNCWS. The Model Water Treatment Plan covers both community and non-community water systems, as described below. References herein to private water systems shall be understood to include non-community water systems that are being addressed as if they are private water systems.

The Model Water Treatment Plan for private water systems (including non-community water systems) where GAC treatment is offered pursuant to the 2009 Consent Order as amended is described below in Section 2.0. The Model Water Treatment Plan for private water systems (including non-community water systems) where an EPA-approved alternative to GAC treatment is offered is described below in Section 3.0. The basic elements of the Model Water Treatment Plan for installation of GAC treatment at a public water system qualifying as a community water system are described below in Section 4.0. Each community public water system that qualifies for treatment is likely to be unique. Therefore, a system-specific water treatment plan will be developed for each community public water system that qualifies for GAC treatment under the 2009 Consent Order as amended. These system-specific plans will be developed after the needed information from each system is acquired. The process that will be followed if an alternative form of treatment for a community public water system is proposed is presented in Section 5.0.

year-round residents or regularly serves at least 25 year-round residents." 40 C.F.R. § 141.2. A "non-community water system" means a public water system that is not a community water system and that is either a transient non-community water system or a non-transient non-community water system. 40 C.F.R. § 141.2. Both of the subcategories of non-community water systems are further defined by EPA. A "transient non-community water system" is "a non-community water system that does not regularly serve at least 25 of the same persons over six months per year" while a "non-transient non-community water system" is "a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year." 40 C.F.R. § 141.2.

2.0 PRIVATE WATER SYSTEMS – GAC TREATMENT

The 2009 Consent Order as amended requires that additional surveying and sampling be conducted of private water systems. For each private water system that is sampled where validated sampling results for PFOA are greater than 0.07 ppb and GAC treatment is offered, Chemours (or its authorized representative) will follow the elements of the Model Water Treatment Plan described below. This Model Water Treatment Plan consists of a series of steps that must be completed sequentially. The outcomes of the specific steps will be communicated to EPA by documentation in spreadsheets provided to EPA and in the quarterly progress reports that are to be submitted to EPA as the steps are completed. Copies of the quarterly progress reports are also being submitted to the West Virginia Department of Health and Human Resources (“WVDHHR”), the West Virginia Department of Environmental Protection (“WVDEP”), the Ohio Department of Health (“ODH”) and the Ohio Environmental Protection Agency (“OEPA”). The same process will be used for non-community water systems that are being addressed in the same manner as private water systems.

2.1 Step One – Documentation

The first step in the Model Water Treatment Plan for installation of a GAC treatment system at a private water system that has been determined to be eligible for treatment consists of sending to the owner of the private water system² a letter presenting the final results of sampling of the private water system and confirming that the private water system is qualified for treatment. A typical form of such a letter is included in Attachment 1. Once the letter presenting the sampling results is mailed to the owner of the private water system and a copy of the letter is sent to EPA, a Chemours representative will contact the owner of the private water system, explain that the private water system is qualified for treatment and make the offer of GAC treatment at no cost to the owner.

Chemours (or its authorized representative) may, at its discretion, upon receipt of draft sampling results and completion of internal data review, contact the owner of a private water system that is qualified for GAC treatment and verbally make the offer for installation of a GAC treatment system based on the reviewed draft sampling results. In this situation, the final validated sampling results will be mailed to the owner of the private water system when available.

If a private water system owner accepts the offer of GAC treatment, Chemours (or its authorized representative) will notify EPA in spreadsheets and provide documentation in the subsequent quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). If a private water system owner chooses to decline the offer of GAC treatment from Chemours, Chemours (or its authorized representative) will request signed confirmation of the decision by the owner to decline GAC treatment (see Attachment 1), will notify EPA of the decline of the offer, and will

² In situations where the person using the private water system is not the private water system owner (e.g., the tenant in a rental property), all documentation will be sent to and must be signed by the private water system owner. The owner in turn can share the information with the tenant, as appropriate. The private water system owner may also allow for direct communication with the tenant on his behalf if he chooses to do so and notifies Chemours (and/or its authorized representative).

provide documentation in spreadsheets and in the subsequent quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). If the private water system owner declines the offer of GAC treatment, Chemours will place the name of the owner on a list being maintained by Chemours of public and private systems that declined or did not respond to offers of temporary or permanent alternate drinking water supplies (the "Decline and Non-Response List"), and will contact such owner on an annual basis within 30 days after the effective date of the 2009 Consent Order as amended to seek such owner's current response to the offer of provision of GAC treatment. Chemours will update the Decline and Non-Response List as new information becomes available and will include the current version of the Decline and Non-Response List with each quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA).

If a private water system owner does not respond to the offer for treatment within 30 days after the offer is made, Chemours (or its authorized representative) will send a follow-up letter and repeat the offer. If the private water system owner does not respond to the second offer letter within 45 days after the initial offer is made, Chemours (or its authorized representative) will notify EPA within 10 additional days and will consider the owner of the private water system to have declined the offer of GAC treatment by virtue of a non-response. Chemours will provide supporting information to EPA in spreadsheets and in the subsequent quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). In addition, Chemours will place the name of the owner on the Decline and Non-Response List that Chemours is maintaining, and will contact such owner on an annual basis within 30 days after the effective date of the 2009 Consent Order as amended to seek such owner's current response to the offer of provision of GAC treatment.

2.2 Step Two – Interview and System Design

Upon verbal acceptance of the offer of GAC treatment, the second step of the Model Water Treatment Plan will be implemented. As part of this second step, Chemours (and/or its authorized representatives) will schedule and conduct an interview with the owner of the private water system that has been determined to be eligible for GAC treatment. The purpose of this interview is to discuss with and have the owner sign the Granular Activated Carbon Treatment System Installation, Operation, and Maintenance Agreement (a copy of which is included in Attachment 2) and fill out the Private Well Questionnaire (a copy of which is included in Attachment 3) which will identify any specific conditions at or within the residence using the private water system that may require a modification of the typical GAC treatment system design. The typical GAC treatment system is described in Figure 1 and consists of two carbon tanks (beds) in series (referred to as Bed 1 and Bed 2) with sampling ports located before Bed 1 (the prior-to-treatment sampling location or "PT"), after Bed 1 (the Bed 1 sampling location or "Bed 1") and after Bed 2 (the Bed 2 sampling location or "Bed 2"). The "Bed 2" sampling port allows for sampling of the treated water that is used in the residence or other location being supplied by the private water system. If a significant design modification from the typical GAC treatment system is required based on the information obtained during the interview, Chemours (and/or its authorized representatives) will provide supporting documentation regarding the design modification in the subsequent quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA).

2.3 Step Three – Geochemical/Biological Parameters Sampling and Permitting

In the third step of implementing the Model Treatment Plan for a private water system where GAC treatment is planned to be installed, Chemours (and/or its authorized representatives) will resample the private water system and analyze the water samples for iron, manganese, and total suspended solids. The results of these analyses for geochemical parameters will be used to determine if additional design modifications to the GAC system are required based on the chemistry of the well water. In addition, based on requirements imposed by ODH as discussed below, water samples from a private water system in Ohio that is eligible for a GAC treatment system will be analyzed for total coliform.

Upon receipt and evaluation of the analytical results for geochemical parameters from a private water system located in West Virginia and a determination that installation of a GAC treatment system is feasible, the private water system will be added to the GAC treatment system installation schedule. However, if the private water system is located in Ohio, a permit to install the GAC treatment system must first be obtained from ODH and the local health department (“LHD”). A copy of the application form for a permit from ODH and the LHD to install a GAC treatment system is included in Attachment 4. Chemours (and/or its authorized representatives) will begin the process of obtaining the required permit for installation of the GAC treatment system once the analytical results for geochemical parameters and total coliform have been obtained. ODH requires that concentrations of total coliform in the untreated water be below the criteria established by ODH before installation of the GAC treatment system can take place. If concentrations of total coliform are reported in the water samples from the private water system at levels above the criteria established by ODH, disinfection procedures, as recommended by ODH, are required to be conducted by the private water system owner or the Chemours representative until concentrations of total coliform are below detection limits in the water from the private water system. A copy of a fact sheet issued by ODH describing procedures to disinfect wells containing total coliform is included in Attachment 5. Following receipt of the necessary permit from ODH and the LHD, the private water system will be added to the GAC treatment system installation schedule.

Chemours will act to initiate design of the GAC treatment system and seek necessary regulatory permits to facilitate installation of the GAC treatment system within 30 days after receiving validated data from the private water system showing that the private water system is qualified for installation of a GAC treatment system.

2.4 Step Four – System Installation

In general, for a private water system located in West Virginia using a typical GAC treatment system, it takes approximately one week to complete the installation of the GAC treatment system from the point in time at which Chemours (and/or its authorized representatives) has received a signed operation and maintenance agreement and a completed private well questionnaire from the owner of the private water system and has completed an interview with the owner of the private water system. In general, for a private water system located in Ohio using a typical GAC treatment system, it takes

approximately two weeks from the same starting point to install a typical GAC treatment system due to the need to obtain a permit from ODH and the LHD for installation of the system. However, scheduling the interview with the owner of the private water system, getting necessary paperwork in place and obtaining access to the residence (or similar location in the case of a non-community water system) for the installation of the GAC treatment system can significantly extend the total time necessary to complete an installation, particularly if a large number of locations are on the GAC treatment system installation schedule. In addition, if design modifications are required for any reason, including, but not limited to, the configuration of the existing water source or the water system having multiple water sources, or if disinfection of the well is needed, additional delays may be encountered that are beyond Chemours' control prior to installation of the GAC treatment system.

Upon completion of installation of a GAC treatment system, Chemours will notify EPA and either WVDHHR and WVDEP (for a GAC treatment system installed in West Virginia), or ODH and OEPA (for a GAC treatment system installed in Ohio) of the installation by documentation in spreadsheets and in the quarterly progress reports that are to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). In addition, upon installation of the GAC treatment system, the provision of a temporary alternate drinking water supply for the private water system will be terminated.

2.5 Step Five – Operation and Maintenance

Following installation of a GAC treatment system, Chemours (and/or its authorized representatives) will begin to conduct post installation monitoring of the GAC treatment system as described below.

Quarterly monitoring of a GAC system will focus on the lead carbon bed or "Bed 1" water sample. Water samples collected as part of post installation monitoring will be analyzed for PFOA. The water samples will be collected as described in the Revised Perfluorooctanoic Acid Quality Assurance Project Plan for the DuPont Corporate Remediation Group (URS, 2014), which is currently being updated. When the analytical results from the lead carbon bed or "Bed 1" water sample indicate that PFOA is present at a concentration of 0.015 ppb or greater, Chemours (and/or its authorized representatives) will perform a carbon bed changeout. During the carbon bed changeout process, Bed 1 is removed, Bed 2 is moved to the Bed 1 position and a new activated carbon tank is installed in the Bed 2 position. Carbon beds will also be replaced if either Bed 1 or Bed 2 has been operational for five years without having been replaced.

Once a year, a "PT" water sample (untreated water from the private water system) will also be collected. This annual sampling will typically be conducted during the third quarter of each year. If the concentration of PFOA in the "PT" water sample is 0.07 ppb or less for two consecutive annual sampling events, then the "PT" water sampling frequency may change from annually to quarterly to demonstrate to the satisfaction of EPA that the levels of PFOA in the source water for the private water system are 0.07 ppb or less for four consecutive quarters and GAC treatment can be terminated.

Chemours will provide for operation and maintenance ("O&M") of the GAC treatment system consistent with the specific terms of the Granular Activated Carbon Treatment

System Installation, Operation, and Maintenance Agreement until Chemours demonstrates to the satisfaction of EPA that the private water system's source water prior to treatment contains PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters thereby allowing GAC treatment to be terminated. Following termination of GAC treatment, Chemours will conduct annual monitoring of the source water for the private system for five years. All monitoring data for GAC treatment systems will be documented in the quarterly progress reports that are to be provided to EPA.

3.0 PRIVATE WATER SYSTEMS - ALTERNATIVE TREATMENT

For some private water systems where validated sampling results show that PFOA is present at concentrations greater than 0.07 ppb, a functionally equivalent alternative to installation of a GAC treatment system may be offered by Chemours, if approved by EPA. Connection to a public water system containing PFOA at concentrations equal to or less than 0.07 ppb in finished water is the most commonly offered form of alternative treatment. For locations where connection of a private water system to a public water system containing PFOA at concentrations equal to or less than 0.07 ppb in finished water will be offered as an alternative to installation of a GAC treatment system, Chemours will notify EPA and obtain EPA's approval prior to offering the owner of the private water system connection to the public water system. If an alternative other than connection to a public water system is offered, Chemours will notify EPA and obtain approval prior to offering the alternative to the owner of the private water system.

The first step in the Model Water Treatment Plan for connection of a private water system to a public water system containing PFOA at concentrations equal to or less than 0.07 ppb in finished water consists of sending to the owner of the private water system³ a letter presenting the results of sampling of the private water system and confirming that the private water system is qualified for treatment (see Attachment 1). Once the letter presenting the sampling results is mailed to the owner of the private water system and a copy of the letter is sent to EPA, a Chemours representative will contact the owner of the private water system, explain that the private water system is qualified for treatment and make the offer to connect the private water system to a public water system containing PFOA at concentrations equal to or less than 0.07 ppb in finished water at no cost to the owner.

Chemours (or its authorized representative) may, at its discretion, upon receipt of draft sampling results and completion of internal data review, contact the owner of a private water system that is qualified for alternative treatment and verbally make the offer of alternative treatment based on the reviewed draft sampling results. In this situation, the final validated sampling results will be mailed to the owner of the private water system when available.

If a private water system owner chooses to decline the alternative treatment offer from Chemours, Chemours (or its authorized representative) will request signed confirmation of the decision by the owner to decline the offer (see Attachment 1), will notify EPA of the decline of the offer, and will provide documentation in spreadsheets and in the subsequent quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). Chemours will also place the name of the owner of the private water system on the Decline and Non-Response List and will contact such owner on an annual basis within 30 days after the effective date of the 2009 Consent Order as amended to seek such owner's current response to the offer of alternative treatment.

³ As previously noted, in situations where the person using the private water system is not the private water system owner (e.g., the tenant in a rental property), all documentation will be sent to and must be signed by the private water system owner. The owner in turn can share the information with the tenant, as appropriate. The private water system owner may also allow for direct communication with the tenant on his behalf if he chooses to do so and notifies Chemours (or its authorized representative).

If a private water system owner does not respond to the offer for alternative treatment within 30 days after the offer is made, Chemours (or its authorized representative) will send a follow-up letter and repeat the offer. If the private water system owner does not respond to the second offer letter within 45 days after the initial offer is made, Chemours (or its authorized representative) will notify EPA within 10 additional days and will consider the owner of the private water system to have declined the offer by virtue of a non-response. Chemours will provide supporting documentation to EPA in spreadsheets and in the subsequent quarterly progress report to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). In addition, Chemours will place the name of the owner on the Decline and Non-Response List that Chemours is maintaining, and will contact such owner on an annual basis within 30 days after the effective date of the 2009 Consent Order as amended to seek such owner's current response to the offer of provision of alternative treatment.

If the offer of connection to a public water system containing PFOA at concentrations equal to or less than 0.07 ppb in finished water is verbally accepted, Chemours will provide to the owner of the private water system a copy of the Public Water Connection Agreement contained in Attachment 6 for the owner to sign. Upon receipt of a Public Water Connection Agreement signed by the private water system owner, Chemours (and/or its authorized representatives) will act with deliberate speed to connect the private water system to the public water system. Upon connection to the public water system, the provision of a temporary alternate drinking water supply for the private water system will be terminated.

4.0 PUBLIC WATER SYSTEMS – GAC TREATMENT

As previously discussed, public water systems are classified by EPA either as “community water systems” or “non-community water systems.” For purposes of the Model Water Treatment Plan, non-community water systems will typically be addressed in the same manner as private water systems. This section of the Model Water Treatment Plan focuses on public water systems that qualify as community water systems as defined by EPA.

If validated sampling results indicate that PFOA is present at concentrations exceeding 0.07 ppb in finished water supplies from a public water system that is a community water system and that is subject to the 2009 Consent Order as amended, the public water system will be qualified to receive an offer of GAC treatment. Assuming that an offer of GAC treatment is made to and accepted by the public water system, the steps set forth below will generally be completed in a sequential manner. Chemours anticipates that GAC treatment will be installed at all public water systems identified under the 2009 Consent Order as amended as requiring treatment. The Model Water Treatment Plan will have to be modified to match the specific site conditions identified at each public water system qualified for treatment. In addition, because public water systems vary in size and have differing numbers of production wells, the specific tasks required for installation of GAC treatment for a public water system may not be the same for each GAC treatment system that is installed. Therefore, the tasks listed below may not be completed for some public water systems and may include items not required for others:

- Collect an 18 gallon sample and conduct an Accelerated Column Test (“ACT”)
- Prepare concept and preliminary designs of the GAC treatment system for review with the owner of the public water system
- Prepare final design of the GAC treatment system for approval by the owner of the public water system
- Prepare final design of GAC treatment system for state permit application (OEPA or WVDHHR)
- Prepare application for submission to the West Virginia Public Service Commission (“PSC”) (West Virginia locations only)
- Obtain permit approvals (and PSC approval for facilities in West Virginia)
- Request bids from construction contractors
- Review bids and award construction contract
- Obtain approvals from water boards and signed access/O&M agreements from the owner of the public water system
- Mobilize for construction work
- Construction of GAC treatment system
- Start-up of GAC treatment system
- Site restoration
- Demobilization
- Turn over facility to owner of public water system for operation

Where a public water system subject to the 2009 Consent Order as amended is identified that has PFOA present in finished water supplies at concentrations greater than 0.07 ppb based on validated sampling results and is therefore qualified to receive GAC treatment, Chemours will provide a public water system-specific draft Model Water Treatment Plan to EPA that will identify the required tasks for installation of GAC

treatment at that public water system. This public water system-specific draft Model Water Treatment Plan will be provided to EPA within 30 days after completion of the validation of the sampling results that show that the public water system is qualified to receive GAC treatment.

Following installation of a GAC treatment system for a public water system, Chemours will notify EPA, and either WVDHHR and WVDEP (for a GAC treatment system installed in West Virginia), or ODH and OEPA (for a GAC treatment system installed in Ohio) of the installation. Completion of the installation of the GAC treatment system will be documented in the quarterly progress reports that are to be submitted to EPA (with copies to WVDHHR, WVDEP, ODH and OEPA). Upon installation of the GAC treatment system, Chemours (and/or its authorized representatives) will collect a confirmation sample to demonstrate proper operation of the newly installed GAC treatment system and the removal of PFOA to a concentration at or below 0.07 ppb. Following receipt of a validated sample confirming the proper operation of a newly installed GAC treatment system, the provision of a temporary alternate drinking water supply for the public water system will be terminated. In addition, post installation O&M monitoring of the GAC treatment system will be conducted, as described below.

Post installation O&M monitoring (typically on a monthly or quarterly basis) will be conducted as required by OEPA or WVDHHR, as applicable. Monitoring of a public water system's GAC treatment system will consist of collecting a pre-treatment ("PT") water sample and two after-treatment water samples designated "lead" and "lag," representing the sample port after the lead carbon bed and the second, or lag, carbon bed, respectively. If the system consists of more than one treatment train, the "lead" and "lag" ports will be sampled for all the treatment trains. The water samples will be analyzed for PFOA. The water samples will be collected as described in the Revised Perfluorooctanoic Acid Quality Assurance Project Plan for the DuPont Corporate Remediation Group (URS, 2014) which is currently being updated.

If PFOA is detected at a concentration of 0.015 ppb or greater in the "lag" water sample obtained from the sample port after the lag carbon bed, the carbon bed will be replaced. If the GAC treatment system consists of two pairs of lead/lag carbon beds in parallel, a changeout will take place even if the foregoing criterion is reached in only one of the lag beds. Once PFOA has been detected at a concentration in the water sample(s) from the lag bed(s) equal to or greater than 0.015 ppb, the carbon in the lead bed(s) will be replaced, the lag bed(s) will be moved into the lead bed position, and the bed(s) with the replaced carbon will be moved into the lag bed(s) position.

Chemours will provide for O&M of the GAC treatment system consistent with the specific terms of the O&M agreement with the owner of the public water system until Chemours demonstrates to the satisfaction of EPA that the public water system's source water prior to treatment contains PFOA at concentrations equal to or less than 0.07 ppb for four consecutive quarters thereby allowing GAC treatment be terminated. Following termination of GAC treatment, Chemours will conduct annual monitoring of the source water for the public water system for five years.

Chemours will provide EPA with the installation status of each public water system that qualifies for GAC treatment in the quarterly progress reports that are to be submitted to EPA.

5.0 PUBLIC WATER SYSTEMS – ALTERNATIVE TREATMENT

A public water system that is a community water system and qualifies for treatment pursuant to the 2009 Consent Order as amended may be addressed through an alternative other than treatment using a GAC treatment system. For example, such a public water system might be connected to another public water system containing PFOA at concentrations equal to or less than 0.07 ppb in finished water. The circumstances where such an alternative may be proposed will necessarily involve a variety of site-specific factors. Should Chemours wish to propose the use of an alternative form of treatment, it will provide EPA with a site-specific Water Treatment Plan for EPA's approval describing the alternative form of treatment and the manner in which the alternative form of treatment will be implemented.

Figure 1

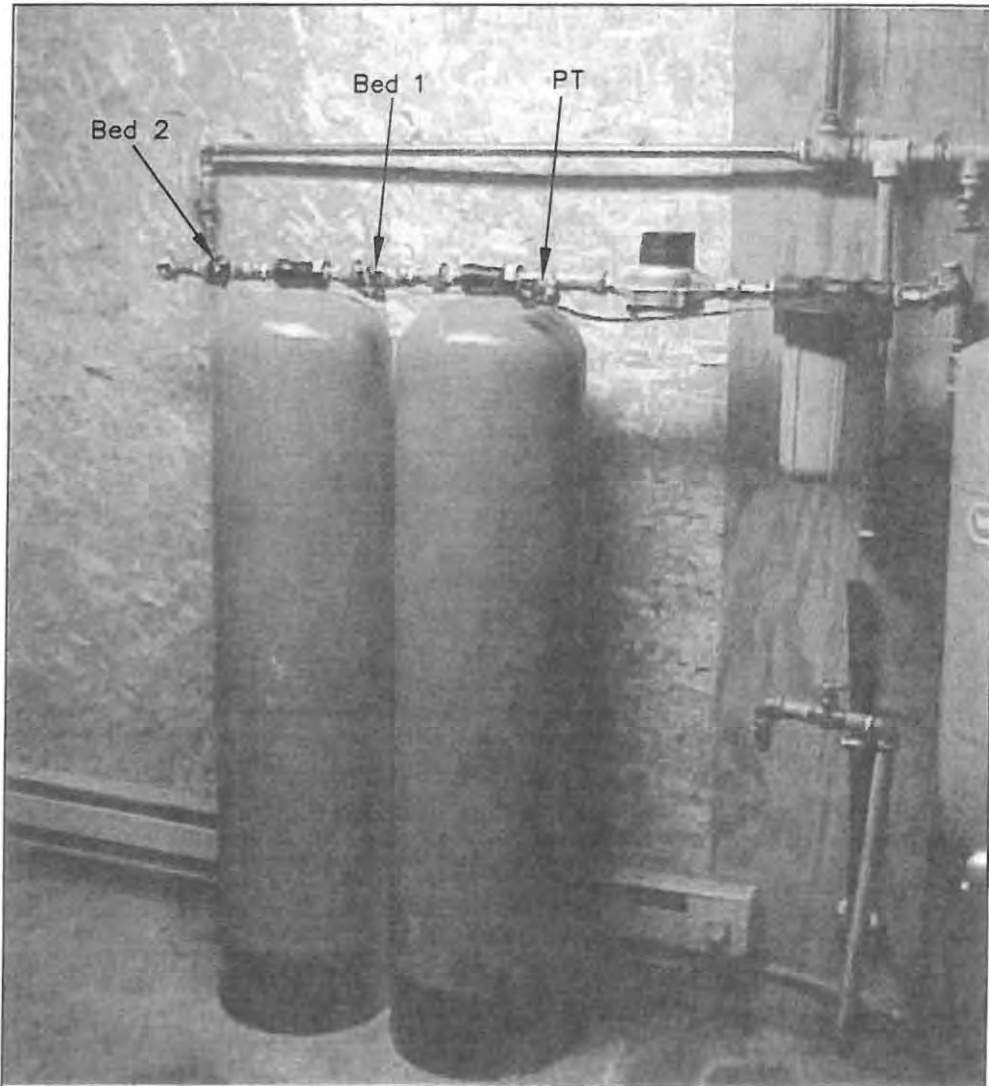
**Typical Residential
Granular Activated Carbon
(GAC) Treatment System
Design**

GAC treatment system to be installed into existing residential water system.
 North American Aqua Model WHS-400 or WHS-200.


Includes:

- Two 13" x 54" wrapped fiberglass carbon filtration tanks.
- Each tank contains 110 pounds Calgon Fitratorb 600 20x50 mesh (primary absorber and polisher).
- 3 Sampling ports, pre filtration (PT), intermediate (Bed 1) & final effluent (Bed 2).
- 50 micron pre filter assembly for particulate removal.
- Totalizing flow meter.
- Any associated piping, fittings to plumb system into home plumbing.
- All new copper to be used.
- Outside applications would include weatherproof housing.

Picture: Activated Carbon Unit Model #WHS-400EPA from North American Aqua, Inc.
 Model used will be determined by space available at residence.



V:\Projects\Report\Washington Works\06\18894356\43564006.dwg, 6/1/2016 11:37 AM, Littel, David E, PDP3955.pc3, Letter, 1:1

DESIGNED BY: K. L. DAVIS	 Sabre Building, Suite 300 4051 Ogletown Road Newark, Delaware 19713 Phone: 302-781-5900	TYPICAL GAC TREATMENT DESIGN SYSTEM	PROJECT NO. 60501962
DRAWN BY: D. LITTEL			DATE 6/1/16
DATA QUALITY CHKD: M. HOULDAY		CHEMOURS WASHINGTON WORKS WASHINGTON, WEST VIRGINIA	FIGURE No: 1
APPROVED BY:			

Attachment 1

Example Private Drinking Water Well Result Letter

Date

Name

Address

City, State, Zip code

Drinking Water Well Sampling Results

Dear Name:

In 2009, E. I. du Pont de Nemours and Company (DuPont) and the United States Environmental Protection Agency (EPA) entered into a Consent Order regarding the presence of perfluorooctanoic acid (PFOA) in certain drinking water supplies. As contemplated in the Consent Order, DuPont conducted several phases of surveying and sampling of public and private drinking water wells for PFOA in the vicinity of the Washington Works facility located in Wood County near Parkersburg, West Virginia. In addition, DuPont offered granular activated carbon (GAC) water treatment technology or a functionally equivalent alternative (as determined by DuPont and approved by EPA) to residents with private water systems containing PFOA at concentrations equal to or greater than 0.40 micrograms per liter ($\mu\text{g/L}$) or parts per billion (ppb). This level of PFOA corresponds to the Provisional Health Advisory for PFOA established by EPA in 2009.

On May 19, 2016, EPA issued a Lifetime Health Advisory value for PFOA of 0.07 ppb based on information in a document entitled *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)* (EPA, 2016). Health advisories apply to substances that are not subject to national primary drinking water regulations under the Safe Drinking Water Act and serve as informal technical guidance to assist federal, state and local officials, and managers of public or community water systems by providing information on the health effects of and methods to sample and treat the substances in drinking water for which health advisories are established. In this case, the Lifetime Health Advisory value for PFOA issued by EPA is intended to be protective of both individuals consuming drinking water containing PFOA over a 70-year period (i.e., lifetime exposure) and pregnant women and breast and bottle-fed infants over shorter time periods.

In light of the foregoing, The Chemours Company (Chemours), which now owns the Washington Works facility, [INSERT, AS APPROPRIATE, A DESCRIPTION OF PRIOR COMMUNICATIONS AND SAMPLING PROGRAM.] With your consent, Chemours arranged for your drinking water well to be sampled for PFOA.

Attached please find the analytical result for PFOA obtained from the sampling that was recently completed of your drinking water well. Because the results show that PFOA was detected at a concentration greater than 0.07 $\mu\text{g/L}$, your drinking water well is eligible for GAC treatment or a functionally equivalent alternative (as determined by Chemours and approved by EPA). Chemours' representative Ms. Ali Pearce has already contacted you regarding this result and the offer of treatment.

Should you have any questions regarding the analytical results that are attached, you can contact Ms. Pierce at (304) 588-1524. If you choose to decline the offer of treatment, please sign below and return this letter in the enclosed self-addressed stamped envelope.

Name
Date
Page 2

Sincerely,

Andrew S. Hartten
Principal Remediation Project Manager
Chemours Corporate Remediation Group

cc: File (508771) (electronic copy)
Roger Reinhart, EPA Region 3
Jennifer Wilson, EPA Region 5

I decline the offer of treatment from Chemours.

(Owner's Signature and Date of Decline)

AECOM

Attachment 2

Example GAC Treatment System Installation, Operation, and Maintenance Agreement

**Granular Activated Carbon Treatment System Installation, Operation,
and Maintenance Agreement**

I (we), _____, the owner(s) (hereafter referred to as Owner(s)) of the parcel of real estate and improvements located at _____ (hereafter referred to as the Property), consent to have The Chemours Company (hereafter referred to as Chemours) and its designated contractor(s) enter on to the Property to install a Granular Activated Carbon Treatment System (hereafter referred to as GAC Treatment System) and connect it to the water supply line running from the Property's well to the primary living space on the Property. In 2009, the United States Environmental Protection Agency (EPA) and E. I. DuPont de Nemours and Company (DuPont) entered into an Order on Consent (the 2009 Consent Order) regarding the presence of perfluorooctanoic acid (PFOA) in certain drinking water supplies at levels exceeding 0.40 micrograms per liter (ug/L). On May 19, 2016, EPA issued a Lifetime Health Advisory value for PFOA of 0.07 ug/L based on information in a document entitled *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)*. EPA, DuPont and Chemours have subsequently amended the 2009 Consent Order through a document referred to as the First Amendment to Order on Consent. Based on the new Lifetime Health Advisory value and pursuant to the 2009 Consent Order as amended, Chemours is now offering installation of granular activated carbon treatment, or an EPA-approved alternative, if the measured concentration of PFOA in the drinking water from a private water system is greater than 0.07 ug/L. Owner(s)' consent for Chemours and its designated contractor(s) to install a GAC Treatment System at the Property is contingent upon the conditions provided below. Fulfillment by Chemours of its obligations specified in this Agreement is also contingent upon the conditions below.

Condition 1. Chemours will provide at its cost all construction, labor and materials necessary to install the GAC Treatment System and connect it to the water supply line running from the Property's source water to the primary living space on the Property.

Condition 2. Chemours will provide at its cost all labor and materials necessary to restore any damage to improvements on the Property that result from Chemours' work installing the GAC Treatment System and connecting it to the water supply line. Restoration shall consist of returning all improvements on the Property damaged by Chemours during installation of the GAC Treatment System to as near as possible the condition existing on the date that installation and connection activities begin. The Owner(s) agree that in the case of grass that is damaged as part of the construction work, reseeding of the damaged area is acceptable.

Condition 3. Chemours will pay for all operation and maintenance of the GAC Treatment System, including timely replacement of the carbon filtering medium, based on the results of quarterly sampling and analysis of water samples from the GAC Treatment System. All operation, maintenance and filter replacement activities will be performed by Chemours' designated contractor(s). Under the terms of the 2009 Consent Order as amended, Chemours will provide for operation and maintenance of the GAC Treatment System until Chemours demonstrates to the satisfaction of EPA that the water system's source water prior to treatment contains PFOA at concentrations less than or equal to 0.07 ug/L for four consecutive quarters. When Chemours' obligation to operate and maintain the GAC Treatment System ends, Chemours will monitor annually the source water at the Property for a period of five (5) years

and Chemours will pay all expenses to remove the GAC Treatment System entirely and return the Property to its condition before the equipment's installation as near as reasonably possible.

Condition 4. Chemours will be responsible for personal injury or property damage caused by negligence in the performance of the work described in Conditions 1, 2, and 3 or by malfunction of the GAC Treatment System. Chemours will not be responsible for any damage caused by the Owner(s) negligence or other misconduct.

Condition 5. Chemours and its contractor(s) may have access to the Property during normal business hours (Monday through Friday between 8:00 a.m. and 5:00 p.m.) to perform the installation, connection, sampling activities and any necessary restoration activities. When Chemours and its contractor(s) must enter the primary living space, it will seek with the Owner(s) to establish a mutually agreeable time to do so.

Condition 6. Owner(s) grant Chemours the authority to obtain at its cost all necessary federal, state, and county permits for completion of the work described above on behalf of Owner(s) as required.

Condition 7. Chemours' designated contractor(s) will be licensed, bonded and insured.

Owner(s)' consent is provided on this date, _____ by:

_____ and _____
Owner(s)' Signature

_____ and _____
Owners(s)' Printed Name(s)

Agreed to by Chemours:

Andrew S. Hartten, Principal Remediation Project Manager, representing The Chemours Company
Printed Name, Title

Chemours Signature

Date

Attachment 3

Example Private Well Questionnaire

Private Well Questionnaire

Name _____ Date _____

Location of Well _____ County _____

Mailing Address _____ Health District _____

Telephone No. _____

What are the pipe sizes and materials for the interior plumbing? _____

What is the type and horsepower of the well pump? _____

How deep is the well? _____

What is the well's depth to the water table? _____

What is the approximate location of the well? _____

Where is the existing pressure tank located? _____

What is the existing water pressure in the house (if known from pressure tank setting)?

Does the house have a basement? _____

Is the basement fully or partially finished? _____

Is the home a single- or two-story structure? _____

Does the resident live in this house all year round? _____

If they are seasonal residents, is the home heated throughout the winter? _____

Does the property have excessive water demands (i.e. horse farm, extensive irrigation for gardens, commercial use, etc)? _____

Are there any increased seasonal demands on water use? _____

Is there a public/community water distribution system in the vicinity of the home? If so, what is the name of the public water supplier?

Is there a water softener or other treatment system installed? _____

If yes, where is it located and is it easily accessible? _____

Is your utility room/basement easily accessible (e.g., interior/exterior door access, stairs)?

Are there additional water pipes branching off of the pipe between the well and the house?

Is the well water used for purposes such as watering gardens and/or livestock, in addition to household purposes? Please list these uses.

Attachment 4

Ohio Department of Health Permit Application

County / City	Local Fee	State Fee	Total Fee Owed	Receipt #	Permit #
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OHIO DEPARTMENT OF HEALTH

APPLICATION/PERMIT FOR A PRIVATE WATER SYSTEM

NOTE: Read the application instructions on the next page.

Complete form as directed. Form may be completed on the computer then printed or printed and completed by pen or typewriter.

CHECK ALL BOXES, IN THIS SECTION, THAT APPLY TO THE PERMIT REQUEST.

Type of Work: <input type="checkbox"/> <u>New Construction</u> <input type="checkbox"/> <u>Alteration</u> (includes expanding existing systems) <input type="checkbox"/> <u>Emergency Construction</u> <input type="checkbox"/> <u>Sealing Only</u> <input type="checkbox"/> <u>Test Well</u>	<input type="checkbox"/> <u>Replacement System</u> <input type="checkbox"/> <u>Emergency Alteration</u> <input type="checkbox"/> <u>Conversion to a PWS</u>	System will Serve: <input type="checkbox"/> Single family dwelling <input type="checkbox"/> Two or Three family dwelling <input type="checkbox"/> Multiple dwelling units* (includes MHPs / Campgrounds) <input type="checkbox"/> Building*	Type of PWS or Component: <input type="checkbox"/> Well <input type="checkbox"/> Spring* <input type="checkbox"/> Pond* <input type="checkbox"/> Cistern* <input type="checkbox"/> Hauled Water Tank <input type="checkbox"/> Continuous Disinfection <input type="checkbox"/> Other _____	System being Sealed: <input type="checkbox"/> Well <input type="checkbox"/> Cistern <input type="checkbox"/> Hauled Water Tank <input type="checkbox"/> Pond <input type="checkbox"/> Spring
<input type="checkbox"/> <u>Public Water Supply</u> is being connected to the residence		<input type="checkbox"/> <u>Geothermal system</u> exists or is planned for this property		

*NOTE: If the private water system will serve other than a one, two, or three family dwelling, detailed plans must also be submitted in compliance with rule 3701-28-03 (E) of the Ohio Administrative Code. See site plan addendums for ponds, springs, cisterns, multiple dwelling units, and buildings.

COMPLETE THE FOLLOWING INFORMATION

Property Street Address or Location (include City and Zip Code)	Parcel # (optional)	Township/City/Village
Owner's Name	Owner Mailing Address (Street #, Street, City, State, Zip Code)	Phone #

Check this box if the Owner and Applicant Information is the same. If checked do not fill in applicant information.

Applicant's Name	Applicant Mailing Address (Street #, Street, City, State, Zip Code)	Phone #
------------------	---	---------

All persons, including homeowners, performing work on a private water system must be registered with the Ohio Department of Health as required in Ohio Administrative Code Rule 3701-28-18(A). If the contractor information is not known at time of application, it must be provided prior to the commencement of work as per the requirements in Ohio Administrative Code Rule 3701-28-03(A)(1).

Private Water Systems Contractor	ODH Registration #	Phone #
Private Water Systems Contractor	ODH Registration #	Phone #
Private Water Systems Contractor	ODH Registration #	Phone #

Notice to Applicant: This application will not be processed until the form bears the signature of the applicant and the date (below). This application must be accompanied by the site plan form(s) and the appropriate fee. This application is not approved until it has the date and signature of a registered sanitarian or sanitarian-in training employed by the local board of health.

I, the undersigned, hereby agree to install, construct, develop or alter the private water system named in this permit application in accordance with the attached site plan and all applicable rules governed by Chapter 3701-28 of the Ohio Administrative Code.

I, the undersigned, also understand that the issuance of this permit is conditioned upon the right of the department to enter upon the premises of the private system named in this permit at any reasonable time prior to, during, or after completion of the work specified in this permit for the purpose of determining compliance with Chapter 3701-28 of the Ohio Administrative Code.

I, the undersigned, agree to contact the local health department upon completion of the private water system in order for the local health department to perform the final inspection and collect the water sample.

I, the undersigned, understand that this permit will expire one (1) year from the date approved and all work must be completed by that date.

APPLICANT'S SIGNATURE	DATE OF SIGNATURE
-----------------------	-------------------

HEALTH DEPARTMENT USE ONLY

This permit is not valid without the sanitarian signature, approval date, and audit number.

Is a variance being requested prior to the permit being issued?

Yes If checked yes, complete the variance section on the Administrative Summary.

APPLICATION APPROVED BY (RS or SIT Only)	DATE APPROVED <i>Permit expires one (1) year from this date.</i>
---	--

**PLACE AUDIT
STICKER HERE**

PERMIT EXTENSION

Approved By	Date Approved	Date Extension Expires
-------------	---------------	------------------------

See comments on the Administrative Summary

APPLICATION INSTRUCTIONS

1. This is a two part form: APPLICATION and SITE PLAN
2. The form may be completed:
 - a. By computer, then printing; or
 - b. By printing the blank document, and filling all information with a typewriter or pen;
3. Contact the Local Health Department for the following information:
 - a. Fee information;
 - b. Site Plan completion information (some local health districts require staff to complete site plans);
 - c. Rule information.
 - d. Registered private water system contractor information.
 - i. A complete list of registered private water system contractors is available on the Ohio Department of Health website at <http://www.odh.ohio.gov/odhPrograms/eh/water/water1.aspx>.
4. The applicant must sign and date the application prior to submitting to the Local Health District.
5. The applicable **FEES** must accompany all applications when submitting to the Local Health District. Applications will not be processed until all fees have been received by the Local Health District.
6. The Local Health District will review the application and site plan and notify you as to the application's status.
7. Contact the Local Health District if you do not receive information about the application status within fifteen (15) business days of submitting the application.

County / City

Permit #

OHIO DEPARTMENT OF HEALTH APPLICATION/PERMIT FOR A PRIVATE WATER SYSTEM SITE PLAN

Property Address	
Owner / Applicant	Prepared by

A site plan addendum form will be required in addition to this site plan form if this private water system permit request is being obtained for:

- 1) any private water system servicing greater than a three family dwelling, or a building;
- 2) any private water system servicing a pond, cistern, spring, or private water system located in an area of known flowing well conditions.

<p>SITE PLAN DRAWING <input type="checkbox"/> Check this box if the drawing is supplied on a separate sheet.</p> <p>-Clearly indicate the location of all proposed and existing private water systems. -Clearly indicate all possible sources of contamination from the list to the right, including but not limited to the house, the sewage system and the driveway. -Clearly indicate the north direction, property lines, roads and road intersections.</p>	<p>LIST OF POTENTIAL CONTAMINATION SOURCES. Write the distance from the proposed private water system location to the source listed below, if applicable. The minimum distance requirements are indicated in () to the right of the source. All distances must be specific to the private water system.</p> <p>_____ ft House, Building (10ft) _____ ft Property lines (10 ft) _____ ft Existing or properly sealed water wells (10 ft) _____ ft Road right-of-ways and road utility easements (10 ft) _____ ft Public Roadways (25 ft) _____ ft Driveway or parking lot (5 ft) _____ ft Sewer - watertight (10 ft) _____ ft Sewage tanks, sewage absorption fields and watertight vault privies (50 ft) _____ ft Leaching privies, leaching pits, dry wells, or drainage wells (100 ft) _____ ft Unregulated constructed wells or boreholes (50ft) _____ ft Geothermal systems (50 ft) _____ ft Streams, lakes, ponds (25 ft) _____ ft Storm water and other ditches with intermittent water flow (15 ft) _____ ft Natural gas or propane tanks (20 ft) _____ ft Fuel oil, diesel, chemical, gasoline and other petroleum liquid tanks (50 ft) _____ ft Oil and gas wells (100 ft) _____ ft Landfills (1000 ft) _____ ft Construction and demolition debris facility (500 ft) _____ ft Agricultural manure ponds, lagoons, or piles (50-300 ft) _____ ft Other: _____</p>
<p>Comments</p>	<p>Please refer to OAC 3701-28-07 for additional required distances.</p>

Attachment 5

Ohio Department of Health Disinfection Procedures



Ohio Department of Health Bureau of Environmental Health

Disinfection Fact Sheet for Drinking Water Wells *Simple procedures for homeowners.*

Bob Taft, Governor
J. Nick Baird, MD, Director of Health

"To improve and protect the health of all Ohioans"

The following well disinfection procedures may be carried out by homeowners on an existing well. Disinfection is performed after the well is sampled and found to be total coliform or e-coli positive, or when the presence of non-pathogenic bacteria such as slime formers or iron bacteria have been identified. A total coliform bacteria sample is used as an indicator of unsanitary conditions. If total coliform or e-coli positive samples persist after disinfection, then an experienced registered private water systems contractor should be contacted to professionally disinfect your well using superchlorination methods and the construction of the well should be evaluated. (See Superchlorination Disinfection Fact Sheet)

Step 1. Pump the Well

Turn on as many faucets in the home as possible, and run the water for several hours (24 hours if possible) to waste in the yard or other drainageway. The well should be heavily pumped to completely flush the well borehole and the geologic formation that supplies the water. Do **not** discharge this water to the septic system, as it will cause the system to become overloaded.

Step 2. Determine the total volume of water stored in your well.

The volume of chlorine used for disinfection depends on the total volume of water stored in the well casing and the distribution lines (plumbing). The total volume of water stored in the well casing can be calculated based on the total depth of the well and the static water level in the well. Information on the total depth and static water level (water level under non-pumping conditions) of the well can be obtained from the well log.

The well log is a record of the construction, depth and geologic materials encountered in the well and is filled out by the water well driller. After the well is drilled, copies of the well log are filed with the Ohio Department of Natural Resources, Division of Water, the local county health department, and a copy is provided to the well owner. If you do not have a copy of your well log, search their website at www.dnr.state.oh.us/water/maptechs/wellogs/app/, or contact ODNR, Division of Water at (614) 265-6740. The total depth of the well will be recorded at the right side of the well log, and the static water level will be recorded under the well test section of the well log. Subtract the static water level from the total depth of the well to determine the total feet of water held in the well casing.

WELL LOG AND DRILLING REPORT

Well No. 261.31

Location: 4321812112

Driller: J.E.C. Corp.

Well Depth: 12.11 ft

Static Water Level: 1.11 ft

Well Casing: 4" Schedule 40

Well Screen: 4" Schedule 40

Well Completion: Open

Well Test Section: 12.11 ft

Well Yield: 1.11 gpm

Well Construction Details:

- 4" Schedule 40 casing to 12.11 ft
- 4" Schedule 40 screen to 12.11 ft
- Well completion: open

Well Log Summary:

Depth (ft)	Material
0 - 12.11	Well casing
12.11 - 12.11	Well screen
12.11 - 12.11	Well completion

Well Log Notes:

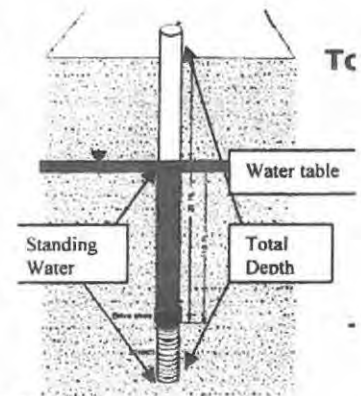
Well log completed by J.E.C. Corp. on 11/11/11.

Well log reviewed by J.E.C. Corp. on 11/11/11.

Well log approved by J.E.C. Corp. on 11/11/11.

Step 3. Determine the volume of chlorine to use for disinfection

Once the total feet of water stored in the casing is known, then the volume of water stored in the casing can be calculated based on Table 1. Take the total feet of water stored in the well, and based on the well diameter, multiply the total feet times the appropriate gallons per foot of water.



Example:

Total well depth is 100 feet, static water level is 60 feet, well casing diameter is 5 inches.

100 feet – 60 feet (static water level) = 40 feet of water in the well casing

From Table 1, a 5 inch casing has 1 gallon stored per foot.

40 feet of water in the casing x 1 gallon per foot = 40 gallons volume of water in casing

Diameter of well (inches)	Gallons per foot of water
3	0.37
4	0.65
5	1.0
6	1.5
8	2.6

The total volume of chlorine to be used for disinfection can be calculated based on the Table 2. For the example cited above (40 gallons of water in the well casing), use approximately one-half of the amount of chlorine necessary to disinfect 100 gallons.

Chlorine concentration (parts per million)	Gallons of 5.25% sodium hypochlorite - liquid bleach	Pounds of dry calcium hypochlorite	Minimum contact time
250	0.5 gallons	0.38	8 hours
500 ppm	1 gallons	0.75 pounds	8 hours

If the total volume of water stored in the well casing is unknown then add two gallons of fresh 5.25 % unscented laundry bleach, also called sodium hypochlorite, to five gallons of water. Mix the solution in a new clean garbage can, or clean a garbage can and line it with a new plastic garbage bag. Laundry bleach loses its' effectiveness the longer it sits on the shelf in the store or in your home. Solid chlorine pellets, which are 65% to 70% calcium hypochlorite, should be dissolved in a five gallon bucket of water.



Be aware that some solid chlorine products used for swimming pools may have additional chemicals, such as algaecides, in them and should not be used for well disinfection. Place the can next to the well to pour the solution or siphon the chlorine solution from the can to the well.

Step 4. Add the chlorine solution.

Remove the cap from the well. Pour the chlorine solution directly into the well.

Step 5. Add Vinegar.

Add 1 quart of white vinegar to a five gallon bucket of water for each 100 gallons of water stored in the well. If the total amount of water stored in the well is unknown, add 2 quarts of vinegar. Add this solution to the well.



Step 6. Flush and re-circulate.

With a garden hose, re-circulate this solution back into the well washing down the sides of the casing for approximately ten minutes. Debris may begin to slough off the side of the casing, and iron or manganese in the water may begin to turn solid as the chlorine reacts with the minerals.

Turn on **all** faucets connected from the well throughout the house and outside the house, including the hot water faucets. Make sure to turn on faucets that rarely or never get used, especially yard hydrants and outside spigots. Remember to run water into the washing machine and flush all toilets. Run the water until the chlorine smell is detected. Bypass all water treatment units during the chlorination process to avoid damage to the resin bed. The resin bed of the water softener can provide a place for bacteria to grow, and must be chlorinated at lower concentrations. The water softener should be disinfected separately using $\frac{1}{4}$ to $\frac{1}{2}$ cup of chlorine bleach placed into the small fill tube in the large brine tank followed by a manual recharge. Remove and discard any carbon filters or cartridge filter elements and thoroughly clean the inside of the filter housing.



Step 7. Maintain sufficient contact time.

Once the odor of chlorine is detected in all water lines, shut off the faucets and let the water sit in the plumbing for at least 24 hours.

Step 8. Flush the chlorine from the water system.

After 24 hours have elapsed, run the water to waste until the entire odor of chlorine is gone. This will take a while depending on the volume of the well and the plumbing. Do **not** run the water into your septic system as this will cause the system to become overloaded.

Step 9. Retest the Well for Total Coliform

Wait a few days, then contact the local health district to have another sample collected for total coliform bacteria. Make sure that the water is checked for chlorine before collecting the water sample. If there is any indication of chlorine in the water, the sample should not be collected. This helps avoid getting an indication of a safe sample that may be due only to the continuing activity of leftover chlorine and may not reflect the true condition of the water. Do not replace carbon filters or filter elements until a total coliform negative sample has been achieved.

What if the well tests positive for total coliform after disinfection?

There are many instances where the previously described disinfection procedures may not work in making a water well bacteria free. In some cases the pH of the water may need further adjustment in order to get the optimum disinfection from the added chlorine, or superchlorination procedures may be required. The well casing may also need a thorough scrubbing or cleaning to remove non-pathogenic slime forming or iron bacteria that can build up on the well casing and borehole walls. Removal of this type of bacteria often requires the use of specially formulated well cleaning products and drilling equipment and is best performed by a registered contractor. If total coliform or e-coli bacteria persist in water samples then contact an experienced registered private water systems contractor to professionally disinfect your well. Contact your local health district when you experience any problems with your well or for assistance.

The Ohio Department of Health registers and bonds private water systems contractors. Please contact your local health district or check <http://www.odh.state.oh.us/ODHPrograms/WATER/water1.htm> for the most current list of registered contractors.

Residential Water and Sewage Program
Bureau of Environmental Health
Ohio Department of Health
246 N. High St.
Columbus, Ohio 43266-0118
(614)466-1390
www.odh.state.oh.us

August 2003

AECOM

Attachment 6

Public Water Connection Agreement

Public Water Connection Agreement

I (we), _____, the owner(s) (hereafter referred to collectively as Owner of the parcel of real estate and improvements located at _____

(hereafter referred to as the Property), consent to have The Chemours Company (hereinafter referred to as Chemours) and its designated contractor(s) enter on to the Property to connect the Property to the _____ public water supply system ("_____"). In 2009, the United States Environmental Protection Agency (EPA) and E. I. du Pont de Nemours and Company (DuPont) entered into an Order on Consent (the 2009 Consent Order) regarding the presence of perfluorooctanoic acid (PFOA) in certain drinking water supplies at levels exceeding 0.40 micrograms per liter (ug/L). On May 19, 2016, EPA issued a Lifetime Health Advisory value for PFOA of 0.07 ug/L based on information in a document entitled *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)*. EPA, DuPont and Chemours have subsequently amended the 2009 Consent Order through a document referred to as the First Amendment to Order on Consent. Based on the new Lifetime Health Advisory value and pursuant to the 2009 Consent Order as amended, Chemours is now offering installation of granular activated carbon treatment, or an EPA-approved alternative, if the measured concentration of PFOA in the drinking water from a private water system is greater than 0.07 ug/L. This Agreement provides for connection of the private water system at the Property to a public water system that contains PFOA at concentrations equal to or less than 0.07 ug/L as a form of alternative treatment. Owner(s)' consent for such connection is contingent upon the conditions provided below. Fulfillment by Chemours of its obligations specified in this Agreement is also contingent upon the conditions below.

Condition 1. Chemours will provide at its cost all construction, labor, and material necessary to connect the Property to _____, including tapping fees and installation fees.

Condition 2. Chemours will provide at its cost all labor and materials necessary to restore any damage to the Property that results from Chemours' work connecting the Property to _____. Restoration shall consist of returning all improvements on the Property damaged by Chemours during the work to connect the Property to _____ to as near as possible the condition existing on the date that such activities begin. Owner agrees that where residential grass is damaged as part of the construction work, reseedling of the damaged area is acceptable.

Condition 3. Chemours will be responsible for personal injury or property damage caused by negligence in the performance of the work described in Conditions 1 and 2. Chemours will not be responsible for any damage caused by Owner's negligence or other misconduct.

Condition 4. Chemours and its contractor(s) may have access to the Property during normal business hours (Monday through Friday between 8:00 a.m. and 5:00 p.m.) to perform the connection work and any necessary restoration activities. When Chemours must enter the primary living space, it will seek with Owner to establish a mutually agreeable time to do so.

Condition 5. Owner grants Chemours the authority to obtain at its cost all necessary federal, state, and county permits for completion of the work described above on behalf of Owner as required.

Condition 6. Chemours' designated contractor(s) will be licensed, bonded, and insured.

Owner(s)' consent is provided on this date, _____ by:

Owner(s)' Signature and Owner(s)' Signature

Owners(s)' Printed Name(s) and Owners(s)' Printed Name(s)

Agreed to by Chemours:

Andrew S. Hartten, Principal Remediation Project Manager, representing The Chemours Company
Printed Name, Title

Chemours Signature

Date

**Exhibit B
Supplemental Sampling
Activities -- New
Geographic Areas and
Newly Activated or
Permitted Water Systems
Scope of Work**

1.0 New Geographic Areas - Scope of Work

This Scope of Work ("SOW") describes certain supplemental sampling activities that The Chemours Company ("Chemours") will conduct under the Administrative Order on Consent pursuant to the Safe Drinking Water Act that E. I. du Pont de Nemours and Company ("DuPont") and the United States Environmental Protection Agency ("EPA") entered into in 2009 (the "2009 Consent Order") as amended by the First Amendment to Order on Consent among EPA, DuPont and Chemours. If anything in this SOW conflicts with any provision in the 2009 Consent Order as amended, the 2009 Consent Order as amended will control. Both DuPont and Chemours are identified as Respondents in the 2009 Consent Order as amended. While this SOW describes actions that Chemours expects to take, references herein to Chemours should be understood to include DuPont if DuPont is implementing the provisions of the SOW pursuant to the 2009 Consent Order as amended.

During the past approximately 16 years, over 450 drinking water wells have been sampled for perfluorooctanoic acid ("PFOA") in the vicinity of a manufacturing facility known as the Washington Works facility (the "Facility") located in Wood County near Parkersburg, West Virginia. The drinking water wells that have been sampled are located in West Virginia and Ohio. DuPont and, more recently, Chemours have conducted such sampling activities.

Additional surveying and sampling activities of public and private drinking water wells may be warranted based upon current science; changed circumstances; new, site-specific information; and issuance by the EPA on May 19, 2016, of a Lifetime Health Advisory ("HA") value for PFOA of 0.07 micrograms per liter (" $\mu\text{g/L}$ ") or parts per billion ("ppb").

Four new geographic areas have been identified where additional surveying and sampling activities are being undertaken to determine if drinking water wells in these areas contain PFOA at concentrations greater than 0.07 ppb. These areas, labeled as Phase III Areas A through D, are shown on Figure 1. Each of these areas has been subdivided into smaller areas ("subareas") and each subarea has been further divided into a "near" and a "far" portion with the near portion being adjacent to previously investigated geographic areas. As discussed hereinafter, a representative number of drinking water wells are being targeted for sampling based on the data available in the previously surveyed and sampled areas and the density of drinking water wells in each subarea. The methods for identifying and sampling drinking water wells in Phase III Areas A through D are described in greater detail below.

In addition, Figure 1 shows an area identified as Phase III Area E in which additional sampling will occur. Specifically, offers will be made to resample private and public water systems located in Phase III Area E where PFOA was detected at concentrations above 0.05 ppb through prior sampling of those private and public water systems. In addition, offers will be made to sample private and public water systems that were newly installed between 2009 and 2016 in Phase III Area E and that were not previously

sampled. As described below, Chemours has received information from county health departments with jurisdiction over the area identified as Phase III Area E identifying such newly activated or permitted drinking water wells that have been installed since 2009 and that are being used as sources of drinking water. Chemours will also contact these county health departments prospectively, on a quarterly basis, to identify newly activated or permitted water systems which are used as drinking water sources so that offers to sample those wells can be made.

1.1 Survey and Identification of Private and Public Water Systems

1.1.1 Private Water Systems and Non-Community Water Systems

Prior to beginning well surveying and sampling activities in the areas identified as Phase III Areas A through D as shown on Figure 1, attempts were made to identify the portions of these areas where public water supplies are not available and where private drinking water wells are most likely to be located. Note that for the purposes of this evaluation and SOW, non-community water systems as defined by EPA and classified as non-transient non-community water systems ("NTNCWSs") and transient noncommunity water systems ("TNCWSs"), if encountered, are being addressed in the same manner as private water systems.¹ For example, a drinking water well at a gas station or church is, for purposes of this SOW, considered to be a private drinking water well even if it otherwise qualifies as an NTNCWS or a TNCWS. By contrast, public water systems that qualify as community water systems as defined by EPA are being evaluated as described in Section 1.1.2 of this SOW.

The evaluation of areas served by community water systems has included obtaining water line location maps from public water systems and overlaying the locations of the water lines on aerial photographs that have a resolution high enough to observe individual house locations. In addition, information has been requested from each public water system regarding whether water lines, where present, serve houses on only one side of a street or road or serve houses on both sides of a street or road. Phase III

¹ EPA's regulations implementing the Safe Drinking Water Act define a public water system as "a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year." 40 C.F.R. § 141.2. EPA further divides public water systems into two categories referred to as "community water systems" and "non-community water systems." A "community water system" is defined as "a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents." 40 C.F.R. § 141.2. A "non-community water system" means a public water system that is not a community water system and that is either a transient non-community water system or a non-transient non-community water system. 40 C.F.R. § 141.2. Both of the subcategories of non-community water systems are further defined by EPA. A "transient non-community water system" is "a non-community water system that does not regularly serve at least 25 of the same persons over six months per year" while a "non-transient non-community water system" is "a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year." 40 C.F.R. § 141.2.

Areas A through D have been divided into subareas and each subarea has been further divided into a near and far portion with the near portion being adjacent to the previously investigated geographic areas as indicated on Figure 1. For each subarea, the distribution of houses and the locations of the water lines are being evaluated and a selection of houses (including non-community public water systems if present), both geographically representative and housing density representative, are being identified for sampling within each subarea, provided that they have private drinking water wells. If clusters of houses are observed which are not served by a public water system, a representative number of houses in each cluster are being identified for sampling.

Sampling within each subarea in the near portion of the subareas in Phase III Area A began on August 1, 2016, and will be subsequently undertaken in Phase III Areas B, C, and D. The water samples are being collected as described in the Revised Perfluorooctanoic Acid Quality Assurance Project Plan for the DuPont Corporate Remediation Group (URS, 2014) which is currently being updated. Sampling will be expanded either within the near portion or into the far portion of a subarea, depending on the particular circumstances that are encountered, if private drinking water wells are identified which contain PFOA at concentrations greater than 0.05 ppb. If such private drinking water wells are located within a cluster of houses, offers will be made to sample all houses within the cluster with private drinking water wells. If such private drinking water wells are located where houses are less densely distributed, the nearest neighboring house(s) with private drinking water wells may be sampled. The additional sampling activities may also be expanded to areas beyond Phase III Areas A through D, if sampling data indicates that PFOA is present at concentrations above 0.05 ppb at the perimeter of the investigated area.

Based on the evaluation described above, teams of two Chemours representatives are visiting the houses targeted for sampling of residential drinking water wells. The field teams are seeking to ascertain whether residential wells that are used for drinking water supplies are present at targeted locations. If a drinking water well is present, Chemours representatives will present the resident or entity with a letter in a form as shown in Attachment 1, which explains Chemours' surveying and sampling program and requests participation in the program. Sampling of the drinking water well can be completed at that time, or sampling can be scheduled at a later time at the convenience of the resident or entity. The same general procedures apply with respect to non-community public water systems (i.e., NTNCWSs and TNCWSs) that are targeted for sampling.

If the resident or entity chooses not to participate in the sampling program, the field team will identify another nearby drinking water well within the subarea (assuming that one exists) and sampling will be offered to that resident or entity. This process will be repeated until representative numbers of samples from private drinking water wells are obtained from the near portion of each subarea. For example, if a cluster of 10 houses is identified which each have drinking water wells, approximately three wells will be identified for sampling. If an area-wide distribution of 20 houses is identified which each have drinking water wells, five or six of the wells will be identified for sampling. The general objective will be to sample approximately 25% to 30% of the total number of

drinking water wells within the near portion of each subarea. The results from these sampling activities will augment the existing database of sampling results.

Water samples from private drinking water wells (including non-community public water systems) will be analyzed for PFOA. The water samples will be collected as described in the Revised Perfluorooctanoic Acid Quality Assurance Project Plan for the DuPont Corporate Remediation Group (URS, 2014) which is currently being updated. Analytical results from each water sample will be provided to EPA and the resident or entity whose well was sampled within seven days after receipt and validation of the results.

The following offers will be made based on the concentrations of PFOA that are detected in the water samples:

- If PFOA is detected in a drinking water well at a concentration above 0.07 ppb, the well will be qualified to receive an offer of treatment using granular activated carbon ("GAC") water treatment technology or a functionally equivalent alternative (as determined by Chemours and approved by EPA) and a temporary alternative drinking water supply will be offered as soon as practicable, but in any event no later than fourteen days after the receipt of validated data. Treatment will be provided as described in the Model Water Treatment Plan approved by EPA.
- If PFOA is detected in a drinking water well at a concentration above 0.05 ppb but less than or equal to 0.07 ppb, an offer will be made to resample the well on a quarterly basis for up to three additional quarters.
 - If the offer is accepted and if PFOA is detected during the additional quarterly sampling events at a concentration exceeding 0.07 ppb, the well will be qualified to receive an offer of treatment using GAC water treatment technology or a functionally equivalent alternative (as determined by Chemours and approved by EPA) and provision of a temporary alternative drinking water supply will be offered. Treatment will be provided as described in the Model Water Treatment Plan approved by EPA.
 - If the offer is accepted and if the concentrations of PFOA do not exceed 0.07 ppb during the additional three quarterly sampling events, no additional offers will be made.
- If PFOA is not detected in a drinking water well at a concentration exceeding 0.05 ppb based on the initial sampling results, the drinking water well will not be qualified for either treatment or additional sampling and no further offers will be made.

1.1.2 Public Water Systems - Community Water Systems

Many public water systems serving the area surrounding the Facility have been sampled for the presence of PFOA. At the present time, seven GAC treatment systems for six public water supply systems qualifying as community water systems (excluding the

water supply system for the Facility itself) have been installed and are being maintained by Chemours. In addition, two GAC treatment systems have been installed to treat water provided by the City of Vienna's public water system. The first of these two GAC systems became fully operational on August 9, 2016. The second GAC system became fully operational on October 15, 2016. The two GAC treatment systems will be maintained by Chemours.

Three public water systems qualifying as community water systems have been identified as potentially serving customers within portions of the areas identified as Phase III Areas A through D. These systems include the public water system operated by the Warren Community Water and Sewer Association, Inc. ("Warren Water") serving portions of Washington County, Ohio, the public water system operated by the City of Marietta Water Treatment Department serving portions of Washington County, Ohio, and the public water system operated by the Williamstown Water Department serving portions of Wood County, West Virginia. Samples of finished water and water from individual production wells from these three public water systems were collected between July 6, 2016 and July 15, 2016, as described in the Revised Perfluorooctanoic Acid Quality Assurance Project Plan for the DuPont Corporate Remediation Group (URS, 2014), which is currently being updated. The concentrations of PFOA measured in the samples collected from these three public water systems were all below 0.05 ppb. The highest concentration of PFOA that was measured was 0.024 ppb. In addition, PFOA was not detected in a number of the samples based on a reporting limit of 0.005 ppb. The sampling results are consistent with prior sampling results obtained in 2007 from samples of finished water and water from individual production wells from the Warren Water and the City of Marietta public water systems. Given the foregoing sampling results, no additional sampling is needed. Analytical results from each water sample were provided to EPA and the operator of the public water system that was sampled within seven days after receipt and validation of the results.

1.2 Newly Activated or Permitted Water Systems

The area designated as Phase III Area E shown on Figure 1 encompasses portions of Washington, Athens, and Meigs Counties in Ohio and Wood County in West Virginia. The county health departments with jurisdiction over the area designated as Phase III Area E have recently been recontacted with the help of EPA to determine whether newly activated or permitted water systems, which are used as sources of drinking water, have been placed into service since the beginning of 2009 in order to verify that information obtained from previous requests, which frequently went unanswered, is complete. Based on an evaluation of the information that has been provided, Chemours has identified approximately 33 newly activated or permitted water systems that may be located within Phase III Area E for which sampling will be offered if the wells are being used to provide drinking water supplies. These water systems were not previously identified by the various county health departments. In addition, based on information previously provided by the various county health departments with jurisdiction over the area designated as Phase III Area E, there are approximately four newly activated or permitted water systems that have not yet been sampled for various reasons.

Chemours will offer to sample these four wells along with the approximately 33 wells described above if the wells are being used to provide drinking water supplies. Chemours' representatives have started the process of contacting the residents by mailing them letters consistent with Attachment 2, which describes the sampling program and requests permission to sample the drinking water wells that are qualified for sampling. Mailing of these letters began on August 3, 2016, and some of the recipients of the letters have already contacted Chemours' representatives.

Following the evaluation of newly activated or permitted water systems from 2009 to the present, Chemours will begin to make written requests on a quarterly basis to the four county health departments described above (i.e., the health departments for Washington, Athens, Meigs, and Wood Counties) to provide information regarding any newly activated or permitted water systems that have been placed into service since receipt of the prior written request from Chemours. Based on the information provided by the county health departments, if such newly activated or permitted water systems are located within Phase III Area E as shown on Figure 1, Chemours' representatives will start the process of contacting the residents to request permission to sample the drinking water wells that are qualified. Newly activated or permitted water systems located within Phase III Areas A through D (or portions thereof) may also be included in these quarterly requests if the results from the supplemental surveying and sampling activities, described above in Section 1.1.1, indicate that these areas warrant being included as part of the health department check process, and if the water systems are qualified for sampling.

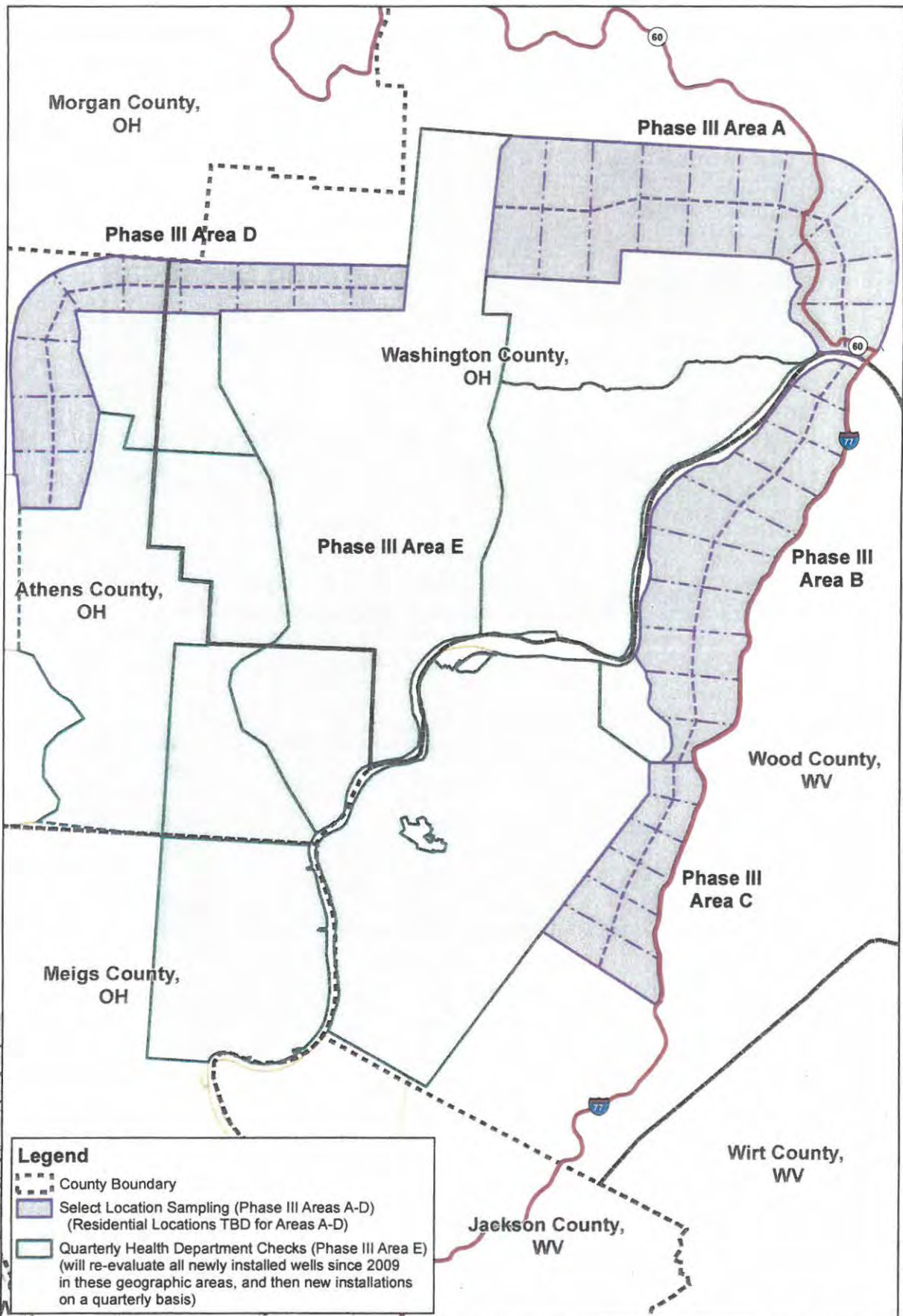
Water samples from drinking water wells will be analyzed for PFOA. As indicated above, the water samples will be collected as described in the Revised Perfluorooctanoic Acid Quality Assurance Project Plan for the DuPont Corporate Remediation Group (URS, 2014), which is currently being updated. Analytical results from each water sample will be provided to EPA and the resident or entity whose well was sampled within seven days after receipt and validation of the results. Treatment will be provided as described in the Model Water Treatment Plan approved by EPA. Offers of treatment or additional sampling will be made as described above in Section 1.1.1 based on the concentrations of PFOA that are measured in the water samples.

Chemours will continue to request that the four county health departments identify any newly activated or permitted water systems in the geographical areas falling within Phase III Area E as shown on Figure 1 and relevant portions of Phase III Areas A through D until Chemours demonstrates to the satisfaction of EPA that underground sources of drinking water in those geographical areas (or a subset of those areas) contain PFOA at concentrations of less than or equal to 0.07 ppb for four consecutive quarters.

Figures

Figure 1

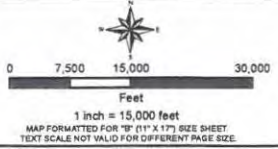
**Proposed New Geographic
Areas and Surveying and
Sampling Locations**



Legend

- County Boundary
- Select Location Sampling (Phase III Areas A-D)
(Residential Locations TBD for Areas A-D)
- Quarterly Health Department Checks (Phase III Area E)
(will re-evaluate all newly installed wells since 2009 in these geographic areas, and then new installations on a quarterly basis)

C:\D:\Permit\Washington\Map\015\SupplementalSampling\WashingtonCounty\PhaseIII\Legend\Legend.mxd



TASK NUMBER
16001

DESIGNED BY
K. DAVIS

DRAWN BY
C. DUFFY

DATA QUALITY CHECK BY
M. HOULDAY

AECOM

AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, DE 19713

**SUPPLEMENTAL SAMPLING
ACTIVITIES - NEW
GEOGRAPHIC AREAS**

Washington Works
Washington, West Virginia

PROJECT NUMBER
60486350

DATE
8/4/2016

FIGURE NUMBER
1

Attachment 1

Well Use Surveying and Sampling Program - Form of Letter for Residents

[INSERT NAME AND ADDRESS]

[INSERT DATE]

Phase III - Well Use Survey and Sampling Program

In 2009, E. I. du Pont de Nemours and Company (DuPont) and the United States Environmental Protection Agency (EPA) entered into a Consent Order regarding the presence of perfluorooctanoic acid (PFOA) in certain drinking water supplies. As contemplated in the Consent Order, DuPont conducted several phases of surveying and sampling of public and private drinking water wells for PFOA in the vicinity of the Washington Works facility located in Wood County near Parkersburg, West Virginia. In addition, DuPont offered granular activated carbon (GAC) water treatment technology or a functionally equivalent alternative (as determined by DuPont and approved by EPA) to residents with private water systems containing PFOA at concentrations equal to or greater than 0.40 micrograms per liter ($\mu\text{g/L}$) or parts per billion (ppb). This level of PFOA corresponds to the Provisional Health Advisory for PFOA established by EPA in 2009.

On May 19, 2016, EPA issued a Lifetime Health Advisory value for PFOA of 0.07 $\mu\text{g/L}$ based on information contained in a document titled *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)* (EPA, 2016) (<https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>). Health advisories apply to substances that are not subject to national primary drinking water regulations under the Safe Drinking Water Act and serve as informal technical guidance to assist federal, state, and local officials, and managers of public or community water systems by providing information on the health effects of and methods to sample and treat the substances in drinking water for which health advisories are established. In this case, the Lifetime Health Advisory value for PFOA issued by EPA is intended to be protective of both individuals consuming drinking water containing PFOA over a 70-year period (i.e., lifetime exposure) and pregnant women and breast and bottle-fed infants over shorter time periods.

The Chemours Company (Chemours), which now owns the Washington Works facility, is beginning an additional phase of surveying and sampling activities. Chemours will gather information regarding the potential presence of PFOA in drinking water supplies in new geographic areas for which no PFOA sampling results exist. We are asking residents within these specific geographic areas to participate in a well use survey and sampling program. If you have a drinking water well and are interested in having it sampled and analyzed for PFOA at no cost to you, please contact Chemours' representative, Ms. Ali Pearce (304-588-1524). The sampling will be scheduled at your convenience and requires a technician to come to your house for less than 10 minutes to collect a small container of water. If your well is sampled, you will receive the results for your well within 6-8 weeks after sampling is completed.

Drinking water wells which contain PFOA at concentrations exceeding 0.07 $\mu\text{g/L}$ will be eligible for an offer of treatment using GAC water treatment technology or a functionally equivalent alternative (as determined by Chemours and approved by EPA). If the concentration of PFOA initially measured in the drinking water well is between 0.05 $\mu\text{g/L}$ and 0.07 $\mu\text{g/L}$, Chemours will offer to monitor the concentration of PFOA in the drinking water well on a quarterly basis (once every three months) for up to three additional quarterly monitoring events. If the concentration of PFOA that is detected in such a drinking water well during any of those monitoring events exceeds 0.07 $\mu\text{g/L}$, that well will be eligible for treatment. If PFOA is not detected in the drinking

water well at a concentration exceeding 0.05 µg/L based on the initial sampling results, the drinking water well will not be qualified for either treatment or additional sampling and no further offers will be made.

Should you have any questions regarding the well use surveying and sampling program, please contact Ms. Jennifer Wilson (EPA Region 5) at 312-353-3115 if you live in Ohio or Mr. Roger Reinhart (EPA Region 3) at 215-814-5462 if you live in West Virginia. We thank you for your help and cooperation with this well use surveying and sampling program.

Sincerely,
The Chemours Company

Andrew S. Hartten
Principal Remediation Project Manager
Corporate Remediation Group

Attachment 2

Sampling of Newly Activated or Permitted Water Systems - Form of Letter for Residents

[INSERT NAME AND ADDRESS]

[INSERT DATE]

Sampling of Newly Activated or Permitted Water Systems

In 2009, E. I. du Pont de Nemours and Company (DuPont) and the United States Environmental Protection Agency (EPA) entered into a Consent Order regarding the presence of perfluorooctanoic acid (PFOA) in certain drinking water supplies. As contemplated in the Consent Order, DuPont offered sampling of newly installed drinking water wells in the vicinity of the Washington Works facility located in Wood County near Parkersburg, West Virginia. If such sampling showed PFOA to be present in water supplies at measured concentrations equal to or greater than 0.40 micrograms per liter ($\mu\text{g/L}$) or parts per billion (ppb), DuPont also offered installation of granular activated carbon (GAC) water treatment technology or a functionally equivalent alternative (as determined by DuPont and approved by EPA) for such wells. This level of PFOA corresponds to the Provisional Health Advisory for PFOA established by EPA in 2009.

On May 19, 2016, EPA issued a Lifetime Health Advisory value for PFOA of 0.07 $\mu\text{g/L}$ based on information in a document entitled *Health Effects Support Document for Perfluorooctanoic Acid (PFOA)* (EPA, 2016) (<https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>). Health advisories apply to substances that are not subject to national primary drinking water regulations under the Safe Drinking Water Act and serve as informal technical guidance to assist federal, state and local officials, and managers of public or community water systems by providing information on the health effects of and methods to sample and treat the substances in drinking water for which health advisories are established. In this case, the Lifetime Health Advisory value for PFOA issued by EPA is intended to be protective of both individuals consuming drinking water containing PFOA over a 70-year period (i.e., lifetime exposure) and pregnant women and breast and bottle-fed infants over shorter time periods.

In light of the foregoing, The Chemours Company (Chemours), which now owns and operates the Washington Works facility, is offering to sample newly installed drinking water wells and install GAC water treatment technology or a functionally equivalent alternative (as determined by Chemours and approved by EPA) to residents with private water systems containing PFOA at measured concentrations greater than 0.07 $\mu\text{g/L}$. Chemours will offer to monitor the concentration of PFOA in a newly installed drinking water well on a quarterly basis (once every three months) for up to three additional quarterly monitoring events if the concentration of PFOA initially measured in the newly installed drinking water well is between 0.05 $\mu\text{g/L}$ and 0.07 $\mu\text{g/L}$. If the concentration of PFOA that is detected in such a drinking water well during any of those monitoring events exceeds 0.07 $\mu\text{g/L}$, that well will be eligible for treatment. If PFOA is not detected in the drinking water well at a concentration exceeding 0.05 $\mu\text{g/L}$ based on the initial sampling results, the drinking water well will not be qualified for either treatment or additional sampling and no further offers will be made.

Your well was identified by one of four County Health Departments (including the Health Departments for Washington, Athens and Meigs Counties in Ohio, and the Health Department for Wood County in West Virginia) as having been installed between 2009 and 2016 and as potentially qualifying for sampling. If your well has been installed, is being used for drinking water purposes and is located within the geographic sampling area, Chemours is offering to

sample the well for PFOA at no cost to you. The sampling will be scheduled at your convenience and requires a technician to come to your house for less than 10 minutes to collect a small container of water. If your well is sampled, you will receive the results for your well within approximately 6-8 weeks after sampling is completed.

If you are interested in accepting this offer, please contact Chemours' representative Ms. Ali Pearce at 304-588-1524 to determine qualification and schedule sampling, if sampling is offered. If you choose to decline this offer, please sign below and return this signed letter in the self-addressed, stamped envelope.

Should you have any questions regarding the sampling program, please contact Ms. Jennifer Wilson (EPA Region 5) at 312-353-3115 if you live in Ohio or Mr. Roger Reinhart (EPA Region 3) at 215-814-5462 if you live in West Virginia.

Sincerely,

Andrew S. Hartten
Principal Remediation Project Manager
Chemours Corporate Remediation Group

I decline Chemours' offer of sampling of my drinking water well for PFOA.

(Owner's Signature, Address and Date of Decline)

In Re: The Chemours Chemours and E.I DuPont de Nemours and Company
Docket Nos. SDWA-03-2009-0127-DS and
SDWA-05-2009-0001

CERTIFICATE OF SERVICE

I certify that on this date I caused to be sent by regular mail, a copy of this "First Amendment to Order on Consent," to the following persons:

For E.I. DuPont de Nemours
Stephen Rahaim
Chief Environmental Counsel
E. I. duPont de Nemours and Company
974 Centre Road - Building 721/1164
Wilmington, Delaware 19803

For The Chemours Company
Bradley Aulick
Senior Counsel
The Chemours Company
1007 Market Street, Office 7056
Wilmington, DE 19898

and a copy delivered by hand to:

Regional Hearing Clerk (3RC00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Regional Hearing Clerk (E-19J)
Office of Enforcement and Compliance Assurance
U.S. EPA - Region 5
77 West Jackson Blvd
Chicago, IL 60604

Date: 1/6/17

[Redacted Signature]

Andrew Duchovňay
Sr. Asst. Regional Counsel
EPA, Region 3

Date: 1/6/2017



Jacqueline Clark
Associate Regional Counsel
EPA, Region 5