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## **RCRA SECTION 3013(a) ADMINISTRATIVE ORDER ON CONSENT**

### **I. JURISDICTION**

1. This Administrative Order on Consent (“Consent Order”) is issued pursuant to the authority vested in the Administrator of the U.S. Environmental Protection Agency (“EPA”) by Section 3013(a) of the Resource Conservation and Recovery Act (“RCRA” or “the Act”), as amended, 42 U.S.C. § 6934(a). The authority to enter into this Consent Order has been duly delegated from the Administrator of the U.S. Environmental Protection Agency to the Assistant Administrator of the Office of Enforcement and Compliance Assurance pursuant to Delegation No. 8-20 Monitoring, Testing, Analysis and Reporting dated January 18, 2017. This authority has been redelegated to the Office Director of the Office of Civil Enforcement pursuant to Delegation No. 8-20-OECA-0117 dated January 17, 2017, and further redelegated to the Division Director of the Waste and Chemical Enforcement Division in the Office of Civil enforcement pursuant to Delegation No. 8-20-OECA-OCE-0117 dated January 17, 2017.

2. This Consent Order is entered into voluntarily by EPA and 3M Chemical Operations LLC (“Respondent”), a Delaware corporation doing business in the State of Illinois, relating to 3M’s Cordova, Illinois facility (“Facility”). Respondent consents to and agrees not to contest EPA’s authority to issue this Consent Order or to enforce its terms. Further, Respondent will not contest EPA’s authority to compel compliance with this Consent Order in any subsequent enforcement proceedings; require Respondent’s full or interim compliance with the terms of this Consent Order; or impose sanctions for violations of this Consent Order; provided, however, that Respondent retains any and all rights it may have to dispute the merits of any such claims.

3. EPA and Respondent recognize that this Consent Order was negotiated in good faith and that Respondent has fully cooperated with EPA with respect thereto. Respondent’s participation in this Consent Order shall not constitute or be construed as an admission of liability. Respondent does not admit, and retains the right to controvert, the factual allegations and conclusions of law set forth in this Consent Order.

4. 3M waives any and all claims for relief and otherwise available rights or remedies to judicial or administrative review of this Consent Order, including but not limited to, any right of judicial review under Chapter 7 of the Administrative Procedures Act, 5 U.S.C. §§ 701-706.

5. This Consent Order is based upon the administrative record compiled by EPA and incorporated herein by reference. The administrative record will be available for review by Respondent at <https://www.epa.gov/il/3m-cordova>. The public may also seek internet access to the Consent Order and the administrative record at Cordova District Library, 402 Main Avenue, Cordova, Illinois 61242.

6. The State of Illinois’ hazardous waste program was authorized under Section 3006(b) of RCRA, 42 U.S.C. § 6926(b) on January 31, 1986. The requirements of the authorized State program are found in Title 35 Ill. Adm. Code, Parts 700-739. Although EPA has authorized the

state program, EPA retains its authority under Section 3013 of the Act. EPA directly implements the RCRA hazardous waste program in Iowa.

## **II. PARTIES BOUND**

7. The provisions of this Consent Order shall apply to and be binding upon 3M and its assignees and successors. In any action to enforce this Consent Order, 3M 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. Respondent shall be responsible and liable to EPA for any failure to carry out all activities required of Respondent by this Consent Order, irrespective of its use of employees, agents, contractors, or consultants to perform all required activities.

8. Any change in the ownership or corporate status of 3M including, but not limited to, any transfer of assets or real or personal property shall not alter 3M's responsibilities under this Consent Order, unless: (1) a third-party expressly agrees to assume the obligations of this Consent Order and to be substituted for 3M under the Consent Order and thus be bound by the terms thereof; and (2) EPA consents to relieve 3M of its obligations.

9. Any documents transferring ownership and/or operational control of the Facility described herein from Respondent to a successor-in-interest shall include written notice of this Consent Order. In addition, Respondent shall, no less than thirty (30) days prior to transfer of ownership or operation of the Facility, provide written notice of this Consent Order to its successor-in-interest, and written notice of said transfer of ownership and/or operation to EPA.

## **III. EPA's FINDINGS OF FACT**

10. 3M, a Minnesota corporation originally named Minnesota Mining and Manufacturing Company in 1902, was incorporated in 1929 under the laws of the State of Delaware to continue operations. On April 8, 2002, the company's name was changed to 3M Company. On April 17, 2023, 3M Chemical Operations LLC was formed in Delaware via conversion of the 3M Manufacturing Operations, Inc., incorporated on January 1, 2018, from a Delaware corporation to a Delaware limited liability company. Respondent 3M Chemical Operations LLC has owned and operated the Cordova facility since August 2023. Prior to that, the Facility was owned and operated by 3M Company. As used in this Consent Order, "3M" refers collectively to 3M Company and its affiliates, including 3M Chemical Operations LLC.

11. In the 1950s, 3M developed and licensed the method for producing certain per- and polyfluoroalkyl substances.

12. Use of the term "PFAS" in Section III (EPA's Findings of Fact) shall mean per- and polyfluoroalkyl substance(s) where perfluorinated substances are defined as man-made chemicals of which all of the carbon atoms are fully fluorinated, and where polyfluoroalkyl

substances are defined as manmade chemicals containing a mix of fully fluorinated carbon atoms, partially fluorinated carbon atoms, and nonfluorinated carbon atoms.

13. 3M owns and operates the manufacturing facility located at 22614 Route 84 (“Facility”) located in Cordova, Illinois.

14. The Facility occupies approximately seven-hundred fifty (750) acres located along the Mississippi River. Across the river, opposite from the Facility, is the State of Iowa.

15. The Facility is a RCRA large quantity generator (“LQG”) of hazardous waste with RCRA ID ILD054236443, and is subject to the notification requirement set forth in RCRA Section 3010, 42 U.S.C. § 6930, incorporated by reference in Illinois Administrative Code § 722.110(a)(2). The Facility was a permitted treatment, storage, and disposal facility (“TSDF”) operating a hazardous waste incinerator, surface impoundment, tanks, and container storage areas under a RCRA hazardous waste permit. The last permitted hazardous waste unit was closed in 1997.

16. From January 1, 2021 through March 24, 2022, 3M shipped hazardous waste from the Facility via manifests to off-site facilities permitted to treat, store and dispose of hazardous waste. These shipments include characteristic hazardous waste such as D001, D002, D007, D018, and D035; listed hazardous waste such as F001, F003, and F005; and discarded commercial chemical products (“CCP”) with a U listing such as U079, U113, U007, and U151. These shipments include manifests documenting hazardous waste containing “perfluoro” compounds.

17. Facility operations began in 1970, and 3M, at various times, has manufactured, produced, generated, or used various PFAS at the Facility, including but not limited to:

Analyte	Abbreviation	CAS RN
Perfluoropropanoic acid	PFPrA/PFPA	422-64-0
Perfluorobutanoic acid	PFBA	375-22-4
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
1,1,1-Trifluoro-N-[(trifluoromethyl) sulfonyl methane sulfonamide	TFSI	82113-65-3
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6

18. 3M has treated, stored, and disposed of PFAS and/or PFAS-containing materials at the Facility. For example, from approximately 1975 to 1999, 3M was authorized by Illinois Environmental Protection Agency (“IEPA”) by Permit #1975-SC-3427-OP and #1975-SC-3427-

OP-1 to land-apply sludge generated by the Cordova facility WWTP in the former sludge incorporation area (“SIA”) located on-Site in the areas east of Route 84 and south of the main manufacturing facilities.

19. In 2014, the State of Illinois approved the establishment of the groundwater management zone to manage groundwater underlying the 3M Facility, including the wellfield located east of the 3M Facility.

20. On June 17, 2022, IEPA terminated 3M’s participation in the Site Remediation Program, which included the designation of the groundwater management zone referenced in Paragraph 19, for the Cordova facility.

21. Aqueous film-forming foam (“AFFF”) is used at the Facility in fixed fire protection systems and portable systems. 3M has represented that releases of AFFF have occurred during fire events and fire suppression training. AFFF contamination often is associated with detection of PFAS species, including PFOA, PFOS, PFHxS, and certain fluorotelomers.

22. Within the SIA and construction soil at the Facility, vegetative cover has been maintained with the intent to stabilize potential soil and limit windblown dispersion of PFAS impacts from these areas.

23. From March 2008 to October 2018, 3M detected PFBA, PFOA, PFBS, PFHxS, and PFOS at its SIA groundwater monitoring wells at and adjacent to the Facility.

24. From March 2011 to April 2013, 3M detected PFOA, PFBS, PFOS, PFBA, and PFHxS in soil samples from its SIA at the Facility.

25. From March 2008 to October 2018, 3M detected PFOS, PFBS, PFOA, PFBA, and PFHxS at its manufacturing area monitoring wells at the Facility.

26. In December 2009, 3M detected PFOS, PFBS, PFOA, and PFBA in non-potable wells at nearby commercial properties.

27. From August 2006 to October 2018, 3M detected PFOS, PFBS, PFOA, PFBA, and PFHxS at its on-site water supply wells at the Facility.

28. From March 2008 to October 2018, 3M detected PFOS, PFBS, PFOA, PFBA, and PFHxS at its on-site reference groundwater monitoring wells, in addition to its sludge incorporation and production well areas referenced above, at the Facility.

29. On December 3-10, 2019, EPA, through the National Enforcement Investigations Center (“NEIC”), conducted a multimedia inspection (“Inspection”) of the Facility.

30. At the time of the Inspection, NEIC collected samples from various locations at the Facility, which showed the presence of certain PFAS.
31. 3M has detected certain PFAS including PFBA, PFBS, and PFOS in residential wells within 0.5 miles of the Facility since at least 2011.
32. The Facility has discharged or currently discharges wastewater and stormwater containing PFAS into the Mississippi River, including, but not limited to, the PFAS listed above in Paragraph 17.
33. On December 28, 2012, the IEPA issued to 3M a National Pollutant Discharge Elimination System Permit, No. IL0003140 (“NPDES Permit”), under Section 402 of the Clean Water Act (CWA), 33 U.S.C. § 1342, with the effective date of January 1, 2013, and an expiration date of December 31, 2017. The NPDES Permit has been administratively extended.
34. Since at least January 1, 2013, 3M’s National Pollutant Discharge Elimination System (“NPDES”) permit authorized 3M to discharge the following PFAS and required that 3M monitor the following 14 PFAS at Outfall 001: PFBA, perfluoropentanoic acid (PFPeA), PFHxA, perfluoroheptanoic acid (PFHpA), PFOA, PFNA, PFDA, perfluoroundecanoic acid (PFUnA), perfluorododecanoic acid (PFDoA), perfluorotridecanoic acid (PFTrDA), PFBS, PFHxS, PFOS, perfluorooctanesulfonamide (PFOSA).
35. In November 2021, 3M detected HFPO-DA, PFBS, PFBA, PFDA, PFDoA/PFDoDA, PFHpS, PFHpA, PFHxS, PFHxA, PFNA, PFOSA/FOSA, PFOS, PFOA, PFPeS, PFPeA, and PFUnA/PFUnDA in soil and groundwater in Illinois and Iowa within a three-mile radius of the Facility.
36. 3M’s operations at the Facility have resulted in discharges of PFAS to water, emissions of PFAS to air, and disposal of PFAS onto the ground and/or land-application of sludge containing PFAS, including, but not limited to, at least 60 PFAS analytes.
37. Though EPA has not done specific modeling at the Facility, EPA’s PFAS atmospheric transport studies at other major PFAS manufacturing facilities suggest a likelihood that PFAS compounds from the Facility have been transported via the air and deposited into the soils and waters in Illinois and/or Iowa.
38. Studies have found that some PFAS are persistent and bio-accumulative in the environment.
39. PFAS released to the environment can migrate through the soil into groundwater.
40. Though EPA has not done specific modeling at the Facility, under certain conditions, rain events can cause the ongoing release of PFAS into surface waters and migration of PFAS into

the groundwater and underground sources of drinking water in locations where releases from a facility have resulted in PFAS contamination of the groundwater and soil.

41. Studies involving humans and animals have shown that certain PFAS can bioaccumulate in the body (e.g., serum half-lives from months to years in humans and monkeys and hours to days/month in rodents).

42. EPA has found that epidemiological studies in human populations and experimental animal studies show correlations between exposures to certain PFAS and an array of cancer and noncancer health effects, including susceptible subpopulations (e.g., early developmental life stages and women of child-bearing age).

43. As of the date of this Consent Order, Respondent has taken action and is taking action to pump, treat, and remove certain PFAS from groundwater at the Facility via its wastewater treatment system, designed to remove certain PFAS from water at the Facility.

44. As of the date of this Consent Order, Respondent has not taken action to remove PFAS from soil or sediment at or adjacent to the Facility.

#### **IV. EPA's DETERMINATIONS AND CONCLUSIONS OF LAW**

45. Respondent's Facility is a "facility or site" within the meaning of Section 3013(a) of RCRA, 42 U.S.C. § 6934(a).

46. Respondent is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

47. Respondent is an "owner" and "operator" of the Facility within the meaning of Section 3013(a) of RCRA, 42 U.S.C. § 6934(a).

48. Section 1004(27) of RCRA, 42 U.S.C. § 6903(27) defines the term "solid waste" to mean "any garbage, refuse . . . and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations. . . but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permit under section 1342 of Title 33 . . . ."

49. Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), defines the term "hazardous waste" to mean "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

(A) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”

50. RCRA authorizes the issuance of an order under RCRA Section 3013, 42 U.S.C § 6934, where the EPA Administrator determines “upon receipt of any information, that (1) the presence of any hazardous waste at a facility or site at which hazardous waste is, or has been, stored, treated, or disposed of, or (2) the release of any such waste from such facility or site may present a substantial hazard to human health or the environment, he may issue an order requiring the owner or operator of such facility or site to conduct such monitoring, testing, analysis, and reporting with respect to such facility or site as the Administrator deems reasonable to ascertain the nature and extent of such hazard.” In addition, 40 C.F.R. § 261.1(b)(2)(i) authorizes issuance of an order where EPA has reason to believe that the material subject to the order may be a solid waste within the meaning of Section 1004(27) of RCRA, 42 U.S.C § 6903(27) and a hazardous waste within the meaning of Section 1004(5) of RCRA, 42 U.S.C § 6903(5).

51. Certain PFAS that have been released or disposed of at and from the Facility may be discarded materials, and as such, may be “solid wastes” within the meaning of Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

52. Upon information and belief, certain PFAS that have been released or disposed of at and from the Facility may present a substantial hazard to human health or the environment.

53. Upon information and belief, certain PFAS that have been released or disposed of, at and from the Facility, may have been improperly managed including improper disposal.

54. Upon information and belief, certain PFAS released or disposed of at and from the Facility thus may be “hazardous wastes” as that term is defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5).

55. Based on the foregoing Findings of Fact, and pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a), EPA has hereby determined that the Facility, owned and operated by 3M, is a facility at which material that may be hazardous waste is or has been stored, treated, or disposed of.

56. Based on the foregoing Findings of Fact, and pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a), EPA has hereby determined that the presence of hazardous wastes at, and the release of hazardous wastes from, the Facility may present a substantial hazard to human health or the environment.

57. EPA has further determined that Respondent, as owner and operator of the Facility, is the party responsible for conducting the limited sampling actions for groundwater and soil within Zone A and Zone B, as agreed to herein, and within the limitations described below, pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a).

## V. ORDER

58. Pursuant to Section 3013(a) of RCRA, 42 U.S.C. § 6934(a), Respondent consents to and is hereby ordered to perform the following actions in this Consent Order and its attachments herein, in the manner and by the dates specified in this Section (the “Work”).

59. For purposes of sampling and analysis required by Section V of this Consent Order, PFAS shall mean the specific PFAS identified by Chemical Abstract Services Registry Number (“CAS Number”) and listed in Attachment 1 (“PFAS Analyte List”).

60. The Work undertaken pursuant to this Consent Order shall be performed in a manner consistent with applicable federal, state, local laws and regulations, and this Consent Order. To the extent relevant, the Work shall be performed in a manner consistent with *Interim Final RCRA Facility Investigation (RFI) Guidance*, Volumes I-IV, EPA/530/SW-89-031, May 1989.

61. Respondent shall provide a copy of this Consent Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the Work performed pursuant to this Consent Order within ten (10) business days of the effective date of this Consent Order or date of such retention.

62. The Work will be conducted in phases. This phased approach includes a sampling and analysis campaign that will address two distinct geographic areas designated as “Zone A” and “Zone B.” Zone A is an area comprised of the Facility and up to a one-half mile buffer from the Facility’s boundaries, excluding the Mississippi River, its embankments, tributaries, and flood zone areas as depicted on Attachment 2 (“Zone A Area”). Zone B is the agreed-upon area extending approximately five (5) miles radially from the center of the Facility manufacturing area (725345.97 N, 4625949.08 E [North American Datum of 1983 (NAD83) Universal Transverse Mercator (UTM) Zone 15N]) excluding the Mississippi River, its embankments, tributaries, and flood zone areas as depicted on Attachment 3 (“Zone B Area”). For the purposes of this Consent Order and as shown on Attachment 3, flood zone areas are defined as the Special Flood Hazard Area as delineated by the Federal Emergency Management Agency Flood Insurance Rate Maps as published as of the effective date of this Consent Order.

63. Respondent shall submit to EPA a project lifecycle Conceptual Site Model (“CSM”) “Baseline CSM” as described in EPA’s systematic planning process (*Environmental Cleanup Best Management Practices: Effective Use of the Project Life Cycle Conceptual Site Model*, EPA 2011) within ninety (90) days of the effective date of this Consent Order. The Baseline CSM shall include a data management and visualization plan developed to model known or suspected release(s) of PFAS at the Facility and to be used to support the soil and groundwater sampling and monitoring Work required by this Consent Order. The Baseline CSM shall also include a pathway receptor network diagram to be used to identify potential migration pathways and potential receptors.

64. No later than 90 days after receipt of EPA’s written approval of Respondent’s Baseline CSM, Respondent shall submit to EPA a Sampling and Analysis Workplan (“Workplan”) for the

Work described in the following Paragraphs 65-75. The Workplan will include: Project Management Plan, Data Collection Quality Assurance Project Plan and Laboratory Quality Assurance Project Plan (collectively, “QAPP”), Data Management Plan, Community Relations Plan, and Health and Safety Plan (“HASP”) in general accordance with EPA’s *Interim Final RFI Guidance, dated May 1989*. The Workplan shall detail investigation methods to (1) define the nature and extent of PFAS in soil and groundwater in Zone A, and (2) obtain a discrete number of soil and groundwater samples in Zone B that will be analyzed for PFAS. The Workplan should result in data that meet the data quality objectives of the EPA-approved Workplan. The Workplan shall establish schedules for the collection of soil and groundwater during the customary field sample season, which is the period from approximately April 1 through October 31, dependent on weather, which may be extended as described in the Workplan. Upon receipt of EPA’s approval of the Workplan, Respondent will commence the Work in accordance with the Workplan schedule(s).

65. For Zone A, the Workplan shall include, at a minimum:

- a. A soil sampling and analysis section and schedule to collect and analyze representative soil samples to determine the nature and extent of the PFAS contaminants as identified in Attachment 1 in Zone A as follows:
  - i. The soil sampling and analysis section will include procedures to investigate, identify, and characterize the PFAS that are present in soil; the concentrations of those PFAS; the vertical and horizontal extent of those PFAS and soil properties that may affect transport and migration of PFAS.
  - ii. Areas of sampling shall include but are not limited to the following: the Manufacturing Area (e.g., Electronics Manufacturing, Internals Manufacturing, Warehouse, WWTP operations, and surrounding areas), other areas not specific to the Manufacturing Area (e.g., production well water lines, fire suppression systems, stormwater conveyances, and chemical sewers), SIA, historical or current Solid Waste Management Units (as defined in the approved Baseline CSM), current or historical drum storage areas, construction and soil debris piles, and other known or suspected spill or source areas of PFAS contamination.
  - iii. The Workplan shall detail and provide rationale for the number, location, depth of samples, and quality assurance measures.
  - iv. Soil samples shall be collected using discrete sampling or incremental sampling methodology using procedures detailed in the approved Workplan. Soil samples shall be collected using a sonic drill rig, hollow-stem auger rig, direct push rig, or hand auger as detailed in the approved Workplan.

- v. Soil samples shall be analyzed using ASTM D8535-23.
  
- b. A groundwater sampling section and schedule to collect and analyze representative groundwater samples to determine the nature and extent of the PFAS contaminants identified in Attachment 1 in Zone A as follows:
  - i. The groundwater sampling section will include procedures to investigate, identify, and characterize the PFAS in and releases to groundwater; identify the specific PFAS concentrations; determine the vertical and horizontal extent of PFAS and plume geometry; characterize groundwater properties that may affect PFAS migration and transport; estimate current and future velocity and direction of PFAS movement; and extrapolate future PFAS movement within Zone A.
  - ii. Groundwater samples shall be collected from the existing groundwater monitoring network including from the forty-four (44) existing groundwater monitoring wells, seven (7) production wells, and private wells located within Zone A as specified in the EPA-approved Workplan.
  - iii. To supplement the existing monitoring well network, additional clustered permanent groundwater monitoring wells shall be installed within Zone A as needed to facilitate groundwater sample collection. To the extent practicable or unless otherwise agreed, the groundwater monitoring wells shall be screened appropriately to ascertain the vertical extent of PFAS in groundwater within soil and/or rock units in Zone A to include three screened intervals within: (1) the most shallow hydrogeologic unit where the water table first intersects the saturated and unsaturated area, (2) directly above the contact between the sand and gravel alluvium and underlying Silurian aged limestone and dolomite bedrock unit, and (3) within the upper portion of the Silurian aged limestone and dolomite bedrock unit throughout the areal extent of Zone A. The Parties agree that existing monitoring wells may be used as part of a well cluster. The Parties agree that if there is an existing monitoring well that is not screened at a depth interval necessary to determine the nature and extent of PFAS, additional groundwater monitoring wells shall be installed as part of the Work at that location and will only be required to be screened at the depth intervals not screened by that existing well.
  - iv. If access is denied after multiple attempts to acquire access for installation of permanent monitoring wells on private property and public right of way property between the Facility boundary and the

Zone A boundary, or an alternate location is unable to be identified, installation of temporary groundwater locations may be permitted, as described in the Workplan.

- v. Areas of sampling shall include but are not limited to the following: the Manufacturing Area (e.g., Electronics Manufacturing, Internals Manufacturing, Warehouse, WWTP, and surrounding areas), other areas not specific to the Manufacturing Area (e.g., production well water lines, WWTP operations, fire suppression systems, stormwater conveyances, and chemical sewers), SIA, historical or current Solid Waste Management Units (as described in the approved Baseline CSM), and other known or suspected spill or source areas of PFAS contamination.
- vi. The Workplan shall detail and provide a rationale for the number, location, and depth of monitoring wells; the number and frequency of samples to be taken; and the parameters to be analyzed.
- vii. Groundwater samples shall be collected from monitoring wells with low-flow sampling methods and from production wells via sampling ports. Notwithstanding the ASTM method specified in Section viii of this Paragraph 65(b), private water systems that are the subject of the Section 1431 Safe Drinking Water Act Administrative Order on Consent, dated November 3, 2022 (SDWA0-HQ-2023-0001-EO), will be sampled at a frequency and analyzed in a manner consistent with that order. Sampling of such private water systems are not subject to this Consent Order.
- viii. Groundwater samples shall be analyzed using ASTM D8421-24.
- ix. Existing monitoring wells and groundwater monitoring wells installed as part of implementing the Workplan, will be sampled and analyzed on a semi-annual basis for a period of two (2) years culminating in four (4) groundwater monitoring events. A proposed semi-annual groundwater monitoring program and schedule must be included in the Workplan. The semi-annual groundwater monitoring events shall be summarized and submitted to EPA as “Semi-Annual Groundwater Monitoring Reports.”

c. A solid waste sampling section and schedule to sample and analyze selected continuously or intermittently generated solid waste and/or spent material known or suspected to contain PFAS to determine the extent of the presence of PFAS in representative samples based upon the characteristics and nature of wastes generated at the Facility. The Workplan shall detail and provide rationale for the number, the location of, the process related to the samples, the PFAS to be analyzed, and quality assurance measures. Analysis will be done

using ASTM D8421-24 for liquid samples with 20% matrix spikes and ASTM D8535-23 for non-liquid samples with 20% matrix spikes. Should 3M determine that the selected solid waste sample analysis does not meet the respective ASTM methods' data quality objectives, 3M shall notify the EPA Project Coordinator within sixty (60) days. Upon receipt of 3M's notification, EPA may provide an alternative method that has been published by EPA or other federal entity for use in the requested analysis.

66. For Zone B, the Workplan shall include a detailed scope of work and methodology to obtain a discrete number of soil and groundwater samples that will be analyzed for PFAS to understand the potential scope of migration or releases of PFAS contaminants from operation of the Facility. Initiation of the Work for Zone B as described in the EPA-approved Workplan shall commence no later than fourteen (14) days after completion of the drilling activity required for Zone A as described in the EPA-approved Workplan.

67. The scope of work for Zone B shall include a systematic, non-random, grid-centered, radial sampling design designating a maximum of eighty (80) sample locations, excluding the Mississippi River, its embankments, tributaries, and flood zone areas, as depicted in Attachment 3. One set of soil and groundwater samples will be collected in each grid cell that meets the criteria below. The Workplan shall detail collection of soil and groundwater samples at each of the designated sample areas including:

- a. Collection of two (2) soil samples at each sample location.
  - i. The two soil samples shall be collected at each sampling location including from the surface and subsurface soil (up to a depth of 4 feet below ground surface).
  - ii. Sampling locations will be located on publicly-accessible land, including state-owned land and rights-of-way, and in non-agricultural areas, as detailed in the approved Workplan.
  - iii. Soil samples shall be collected using direct-push methods and will be analyzed using ASTM D8535-23.

b. Collection of one (1) groundwater sample at each sampling location as follows:

- i. Groundwater sampling locations will be co-located with the soil sampling locations prescribed above in Paragraph 67(a).
- ii. Groundwater samples shall be collected using direct push drilling method, where possible, in the first hydrogeological unit where the water table first intersects the saturated and unsaturated area. Groundwater samples shall be collected in the first hydrogeological

unit where the water table first intersects the saturated and unsaturated area.

- iii. Respondent will make three attempts to reach groundwater at the location designated pursuant to the Workplan within each of the grids identified for sampling as shown in Attachment 3. If refusal at a sample location is met for all three attempts, Respondent will notify the EPA Project Coordinator within five (5) business days to determine if an alternate location is appropriate, as detailed in the Workplan. If 3M is unable to obtain groundwater samples with the direct push drilling method in certain locations, at the conclusion of the direct push sampling efforts 3M shall propose for EPA approval alternative drilling methods and a schedule for such alternative sampling. If EPA and 3M determine a groundwater sample within a grid is technically infeasible, then a groundwater sample will not be collected for this grid.
- iv. Groundwater samples shall be analyzed using ASTM D8421-24.

68. Within sixty (60) days of the receipt of the last validated analytical laboratory results of all Zone A samples required by the Workplan, Respondent shall submit to EPA a Data Investigation Report that summarizes and includes all the data collected during the Zone A work.

69. Within sixty (60) days of the receipt of the last validated analytical laboratory results of all Zone B samples, Respondent shall submit to EPA a Data Investigation Report that summarizes and includes all the data collected during the Zone B work.

70. No later than one-hundred and eighty (180) days after submission of the last of the Data Investigation Reports required by Paragraphs 68 and 69, 3M will submit to EPA for review and approval its Limited Characterization CSM. The Limited Characterization CSM shall: include the validated analytical laboratory results of all sampling and analyses performed during the Zone A and Zone B investigations together with appendices containing all relevant data collected and non-privileged documentation generated during the Zone A and Zone B investigations; describe the nature and extent of PFAS in soil and groundwater in Zone A; describe the data collected during the Zone B investigation; and demonstrate compliance with the requirements of the Workplan. For the purposes of this Consent Order, the Baseline CSM and Limited Characterization CSM and its updates will not include a risk assessment for human health or the environment, a feasibility study, or a remedial design.

71. Within ninety (90) days of EPA's approval of the Limited Characterization CSM, Respondent shall submit a final report. Respondent's final report shall include a summary of all actions taken to comply with this Order.

72. For analysis of samples collected within the Facility boundary (as depicted as Attachment 2) and for waste sampling required by Paragraph 65(c), 3M may utilize its in-house laboratory

(3M Global EHS Laboratory) if the following is met in advance of sample collection and analysis:

- a. As part of the Workplan, 3M shall submit a QAPP for laboratory procedures (“Laboratory QAPP”) subject to this Paragraph 72.
- b. Within 30 days after receipt of EPA’s comments on the Laboratory QAPP, 3M shall incorporate EPA’s written comments.
- c. After EPA’s written approval of the Laboratory QAPP referenced in Paragraph 72(a) and (b), 3M shall allow EPA’s laboratory personnel to inspect and review 3M’s in-house laboratory (3M Global EHS Laboratory) during periods of active sampling analysis done by the laboratory.
- d. Upon receipt of EPA’s written approval of the Laboratory QAPP and physical inspection of 3M’s laboratory procedures, 3M may use its in-house laboratory (3M Global EHS Laboratory) to analyze onsite samples collected within the Facility boundary, as long as 3M:
  - i. Provides EPA, IEPA or IDNR’s personnel an opportunity to oversee sampling collection and split sampling for all sampling subject to this Paragraph; and
  - ii. Demonstrates that at least 20% of the samples collected under this Paragraph were analyzed and verified by an Independent Third-Party Laboratory that meets the requirements of the approved Laboratory QAPP (3M may use the same laboratory used for other sample analysis under this Consent Order).

73. For analysis of soil and groundwater samples collected outside the Facility boundary, 3M shall utilize an Independent Third-Party Laboratory, NELAC-certified, and competent to conduct analysis by ASTM D8421-24 for liquid samples and ASTM D8535-23 for non-liquid samples. 3M may retain splits of any samples for analysis at in-house laboratory capable of analyzing the samples by ASTM D8421-24 and ASTM D8535-23. The results of such analysis from the Independent Third-Party Laboratory and 3M Global EHS Laboratory will be provided to EPA as a final lab report along with any documentation required under the approved Laboratory QAPP.

74. The Workplan scope shall include a desktop survey which identifies any wetlands or surface water bodies within a 1.0-mile radius of the Facility boundary. This desktop survey should identify any such bodies of water which are used for public recreational purposes or may contain endangered species.

75. Concurrent with the submission of the Sampling and Analysis Workplan, Respondent shall submit a HASP with respect to the work to be performed under this Consent Order. The

HASP shall comply with applicable Occupational Safety and Health Administration (“OSHA”) regulations.

76. For the purposes of this Consent Order, “Completion” of Work is defined as completion of all field activities specified in the approved Workplan issued pursuant to this Consent Order and submission of the Respondent’s final report.

77. EPA acknowledges that Respondent may have completed some of the Work required by this Consent Order and/or that Respondent may have available some of the information and data required by this Consent Order. This previous work may be used to meet some of the requirements of this Consent Order, upon submission to and approval by EPA.

#### **VI. ADDITIONAL WORK**

78. Based on the Work performed under the Workplan for Zone A only, EPA may determine that additional monitoring, testing, analysis, and/or reporting is necessary to ascertain the nature and extent of PFAS in soil and groundwater. If EPA determines that such additional work is necessary, EPA will notify Respondent in writing and specify the basis(es) for its determination that such additional work is necessary. Within thirty (30) days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss such additional work. If required by EPA, Respondent shall submit for EPA approval, a workplan with a schedule for the additional work in Zone A. EPA will specify the contents of such workplan. Such workplan shall be submitted by Respondent within ninety (90) days of receipt of EPA’s determination that additional work is necessary, or according to an alternative schedule agreed to by EPA.

#### **VII. MINIMUM QUALIFICATIONS FOR PERSONNEL**

79. All work performed by Respondent pursuant to this Consent Order shall be under the direction and supervision of an individual who has demonstrated expertise in hazardous waste site investigation. Before any work is performed, Respondent shall submit to EPA, in writing, the name, title, and qualifications of the supervisory personnel and of any contractors or subcontractors to be used in carrying out the terms of this Consent Order. Additionally, Respondent shall ensure that when a license is required, only licensed individuals shall be used to perform any work required by this Consent Order.

#### **VIII. SUBMISSIONS/EPA REVIEW**

80. EPA will review Respondent’s workplans, draft and final reports, and any other documents submitted pursuant to this Consent Order (“submissions”) and will notify Respondent in writing of EPA’s approval or disapproval of each such submission, with the exception of progress reports. In the event of EPA’s disapproval, EPA shall specify in writing any deficiencies in the submission. Such disapproval shall not be subject to the dispute resolution procedures of Section XVI (Dispute Resolution), other than in accordance with Paragraphs 81-83 below.

81. Within sixty (60) calendar days of receipt of EPA's comments on the submission, Respondent shall submit to EPA for approval a revised submission that responds to any comments received and/or corrects any deficiencies identified by EPA. Respondent may request additional time within which to submit a revised submission. In the event that EPA disapproves the revised submission, Respondent may invoke the dispute resolution procedures of Section XVI (Dispute Resolution), below. EPA reserves the right to revise such submission and further reserves any right it may have to seek to recover from Respondent the costs of revising the subsequent submission. Any submission approved or revised by EPA or upheld through dispute resolution under this Consent Order shall be deemed incorporated into and made an enforceable part of this Consent Order.

82. Upon disapproval by EPA of a revised submission, and in the event Respondent does not invoke the dispute resolution procedures of Section XVI (Dispute Resolution) below, Respondent shall within thirty (30) days submit to EPA for approval a subsequent revised submission which responds to any comments received and/or corrects any deficiencies identified by EPA. Respondent may request additional time within which to submit a subsequent revised submission.

83. In the event EPA and Respondent cannot resolve issues relating to EPA's comments and EPA disapproves of any subsequent revised submission, Respondent may invoke the dispute resolution procedures of Section XVI (Dispute Resolution). EPA reserves the right to revise such revised submission and further reserves any right it may have to seek to recover from Respondent the costs of revising the subsequent submission. Any submission approved or revised by EPA or upheld through dispute resolution under this Consent Order shall be deemed incorporated into and made an enforceable part of this Consent Order.

84. No later than one hundred and twenty (120) days after approval of the Workplan, and quarterly thereafter, Respondent shall submit progress reports in electronic format. Each progress report shall comprehensively summarize for each section of the EPA approved Workplan the completed and planned future activities under the EPA approved Workplan. Respondent shall append the detailed information that it relied upon to develop the progress report. EPA may direct Respondent to include additional information in progress, and Respondent shall timely submit that information and incorporate the requested information in subsequent progress reports.

85. EPA shall endeavor to timely approve or disapprove any deliverable submitted by Respondent for approval pursuant to this Consent Order. Nothing in this Paragraph 85 shall be construed to confer any enforceable rights upon Respondent, nor shall any failure to comply with the provisions of this Paragraph be subject to the dispute resolution provisions set forth in Section XVI (Dispute Resolution), below.

86. Respondent shall submit all deliverables to EPA in electronic form unless otherwise specified. Sampling and monitoring data should be submitted in electronic format.

87. Progress reports, other reports, and other documents specifically identified in Sections V (Order) or VI (Additional Work) of the Consent Order, and submitted by Respondent pursuant to this Consent Order, that discuss, describe, demonstrate, or support any finding or make any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a duly authorized representative of Respondent. A person is a duly authorized representative only if: (a) the authorization is made in writing; (b) the authorization specifies either an individual or position having responsibility for overall operation of the facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (c) the written authorization is submitted to the Project Coordinator designated by EPA pursuant to Section X (Project Coordinator) of this Consent Order.

88. The certification required by Paragraph 87 above, shall be in the following form:

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 be 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.

Signature:

Name:

Title:

## **IX. QUALITY ASSURANCE/QUALITY CONTROL**

89. Respondent shall follow EPA guidance for sampling and analysis. As part of the Workplan, Respondent shall develop a QAPP that is consistent with EPA guidance (see <https://www.epa.gov/quality/guidance-quality-assurance-project-plans-epa-qag-5>) for EPA review and approval for all sampling and analysis conducted under this Consent Order. The QAPP shall be included in the Workplan and shall contain quality assurance/quality control ("QA/QC") and chain of custody procedures for all sampling, monitoring, and analytical activities. Any deviations from the QA/QC and chain of custody procedures in approved workplans must be approved by EPA prior to implementation; must be documented, including reasons for the deviations; and must be reported in the applicable report.

90. The name, address, telephone number and contact person of each analytical laboratory Respondent proposes to use must be specified in the applicable QAPP in the workplan.

91. All workplans required under this Consent Order shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained, and that data are sufficient to support their intended use(s).

92. Respondent shall monitor work done by its consultants and contract laboratories to ensure that they meet the data quality objectives of the QAPP. Respondent shall ensure that laboratories used by Respondent for analysis perform such analysis according to ASTM D8535-23 and ASTM D8421-24, or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall specify and submit all such protocols for EPA approval in the Workplan. EPA may reject any data that does not meet the requirements of the approved Workplan and may require resampling and additional analysis.

93. Respondent shall ensure that laboratories it uses for analyses participate in a QA/QC program equivalent to that followed by EPA. EPA may conduct a performance and QA/QC audit of each laboratory chosen by Respondent before, during, or after sample analyses. Upon request by EPA, Respondent shall have its laboratory perform analyses of samples provided by EPA to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, resampling and additional analysis may be required.

## **X. PROJECT COORDINATORS**

94. EPA hereby designates as its Project Coordinator:

Anthony Ellison  
Physical Scientist  
U.S. Environmental Protection Agency  
Office of Civil Enforcement, WCED  
1200 Pennsylvania Ave. N.W. (2249A)  
Washington, D.C. 20460

Jay Kim  
Geologist  
U.S. Environmental Protection Agency  
Region 5, LCRD  
77 W. Jackson Blvd. (LR-16J)  
Chicago, IL 60604

Mary Woodruff  
Environmental Engineer  
U.S. Environmental Protection Agency  
Region 7, ECAD  
11201 Renner Blvd.  
Lenexa, KS 66219

95. Within ten (10) calendar days of Respondent's receipt of this Consent Order, Respondent shall designate a Project Coordinator and submit the designated Project Coordinator's name, address, and telephone number in writing to EPA.

96. The Project Coordinators shall oversee the implementation of this Consent Order and function as the principal project contacts.

97. EPA and Respondent shall have the right, subject to this Section, to change their designated Project Coordinator. Respondent shall provide EPA with a written notice of any change in its Project Coordinator. Such notice shall be provided at least seven (7) calendar days prior to the change in Project Coordinator.

## **XI. SAMPLING AND DATA/DOCUMENT AVAILABILITY**

98. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent pursuant to the requirements of this Consent Order.

99. For the field activities in Zone A and Zone B expressly identified in the Workplan as requiring prior notice to EPA, Respondent shall provide written notice to EPA at least fourteen (14) calendar days in advance of 3M initiating such field activities. To the extent applicable, Respondent shall also notify either the Iowa Department of Natural Resources or the Illinois Environmental Protection Agency, in writing, at least fourteen (14) calendar days in advance of engaging in the specified field activities in their respective state. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split and/or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Similarly, at the request of Respondent, EPA will allow Respondent or its authorized representatives to take split and/or duplicate samples of any samples collected by EPA under this Consent Order, provided that such sampling shall not delay EPA's proposed sampling activities. Upon request, Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent pursuant to this Consent Order. Nothing in this Consent Order shall limit or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

100. Respondent shall provide notice to EPA within five (5) business days of completion of the Work for Zone A and Zone B, respectively.

## **XII. ON-SITE AND OFF-SITE ACCESS**

101. Respondent shall provide access at all reasonable times to the Facility and to all records and documentation relating to conditions at the Facility and the activities conducted pursuant to this Consent Order to EPA and its employees, contractors, agents, consultants, and representatives appropriately credentialed or authorized by EPA. These individuals shall be permitted to move freely at the Facility in order to conduct activities which EPA determines necessary and in accordance with applicable law.

102. To the extent that activities required by this Consent Order, or by any approved workplans prepared pursuant hereto, must be performed on property not owned or controlled by Respondent, Respondent will use its best efforts to obtain site access agreements in a timely manner from the present owners of such property. Respondent shall ensure that EPA's Project Coordinator has a copy of any access agreements.

103. Nothing in this Consent Order limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

### **XIII. RECORD PRESERVATION**

104. Respondent shall retain, during the pendency of this Consent Order and for a minimum of five (5) years after its termination, a copy of all data, records, and documents now in its possession or control or created as a result of this Consent Order, or in the possession or control of its contractors, subcontractors, or representatives, or which come into the possession or control of Respondent, its contractors, subcontractors, or representatives, which relate in any way to this Consent Order.

105. Respondent shall provide to EPA data, records and documents retained under this Section at any time before the expiration of the five (5) year period at the written request of EPA.

### **XIV. INFORMATION SUBMITTED TO EPA**

106. Respondent may assert a business confidentiality claim in the manner described in 40 CFR § 2.203(b) covering all or part of any information submitted to EPA pursuant to this Consent Order. Information submitted for which Respondent has asserted a claim of confidentiality as specified above shall be disclosed by EPA only to the extent and manner permitted by 40 CFR Part 2, Subpart B, as well as the U.S. Supreme Court's decision in *Food Marketing Institute v. Argus Leader Media (Argus)*, 139 S. Ct. 2356 (2019), which evaluated the definition of "confidential" as used in Exemption 4 under FOIA. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by EPA without further notice to Respondent.

107. In the event that Respondent wishes to assert a privilege with regard to any document which EPA seeks to inspect or copy pursuant to this Consent Order, Respondent shall identify the document, the privilege claimed, and the basis in writing. For the purposes of this Consent Order, privileged documents are those documents exempt from discovery from the United States in litigation under the Federal Rules of Civil Procedure and/or any applicable case law. EPA may dispute any such claim of privilege pursuant to the dispute resolution provisions set forth in Section XVI (Dispute Resolution).

### **XV. DELAY IN PERFORMANCE/STIPULATED PENALTIES**

108. Unless there has been a written modification of a compliance date by EPA, or excusable delay as defined below in Section XVII (Force Majeure), in the event that Respondent fails to

comply with any requirement set forth in this Consent Order, Respondent shall pay stipulated penalties, which accrue as follows:

a. For any failure to commence, perform or complete work as required by this Consent Order: \$500 per day for one (1) to seven (7) days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter;

b. For any failure to submit any Workplans, plans, or reports as required by this Consent Order: \$500 per day for one (1) to seven (7) days or part thereof of noncompliance, and \$1,000 per day for each day of noncompliance, or part thereof, thereafter; and

c. For any failure to submit other deliverables as required by this Consent Order: \$250 per day for one (1) to seven (7) days or part thereof of noncompliance, and \$500 per day for each day of noncompliance, or part thereof, thereafter.

109. All stipulated penalties shall begin to accrue the first day that a violation occurs and shall continue to accrue until correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Order.

110. All stipulated penalties under this Section shall be due within thirty (30) calendar days of receipt of a demand for payment unless Respondent invokes the dispute resolution procedures under Section XVI (Dispute Resolution) below. Such demand for payment shall describe the noncompliance and shall indicate the amount of stipulated penalties due.

111. All stipulated penalty payments may be made by one of the following four (4) methods:

a. By standard mail: a bank check, cashier's check, or certified check payable to "Treasurer, United States," to the following address:

U.S. Environmental Protection Agency  
Fines and Penalties  
Cincinnati Finance Center  
P.O. Box 979078  
St. Louis, MO 63197-9000

Or:

For signed receipt confirmation (Fedex, DHL, UPS, USPS certified, registered, etc.) a bank check, cashier's check, or certified check payable to "Treasurer, United States," to the following address:

U.S. Environmental Protection Agency  
Government Lockbox 979078  
1005 Convention Plaza

SL-MO-C2-GL  
St. Louis, MO 63101

b. By wire transfer to:

Federal Reserve Bank of New York  
ABA: 021030004  
Account No. 68010727  
SWIFT address: FRNYUS33  
33 Liberty Street  
New York, NY 10045

\*Note: Foreign banks **must** use a United States Bank to send a wire transfer to the US EPA.

c. By automatic clearing house (ACH) payment through Vendor Express  
using:

US Treasury REX/Cashlink ACH Receiver  
ABA: 051036706  
Account Number: 310006, Environmental Protection Agency  
CTX Format Transaction Code 22 - checking  
Physical Location of US Treasury Facility:  
5700 Rivertech Court  
Riverdale, MD 20737  
Remittance Express (REX): 1-866-234-5681

d. Through [www.pay.gov](http://www.pay.gov) using a credit or debit card (Visa, MasterCard, American Express, and Discover) or checking account information.

All payments shall reference Respondent's name and address and the EPA Docket Number of this Consent Order. Copies of the transmittal of payment shall be sent simultaneously upon payment to the EPA Project Coordinator identified in Section X (Project Coordinator) and to EPA's Cincinnati Finance Center at [CINWD\\_AcctsReceivable@epa.gov](mailto:CINWD_AcctsReceivable@epa.gov).

112. Pursuant to 31 U.S.C. § 3717 and 40 C.F.R. § 13.11, unless otherwise prohibited by law, EPA will assess interest and late payment penalties on outstanding debts owed to the United States and a charge to cover the cost of process and handling a delinquent claim in accordance with applicable law. Stipulated penalties paid pursuant to this Consent Order are not deductible for federal purposes under 26 U.S.C. § 162(f).

113. Respondent may dispute EPA's demand for payment of stipulated penalties for any alleged violation of this Consent Order by invoking the dispute resolution procedures below under Section XVI (Dispute Resolution). Stipulated penalties shall continue to accrue, but are not required to be paid, for any alleged noncompliance which is the subject of dispute resolution during the period of such dispute resolution. To the extent that Respondent does not prevail

upon resolution of the dispute, Respondent shall remit to EPA within twenty-one (21) calendar days of receipt of EPA's written decision as to said dispute, any outstanding penalty payment in the manner described above in Paragraph 111 of this Section.

114. Neither the filing of a petition to resolve a dispute nor the payment of stipulated penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

115. The assessment of stipulated penalties set forth in this Section shall not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order.

## **XVI. DISPUTE RESOLUTION**

116. If a dispute arises under this Consent Order, the procedures of this Section shall apply. The Parties shall make reasonable efforts to informally resolve disputes at the Project Coordinator or immediate supervisor level.

117. If Respondent disagrees, in whole or in part, with any EPA disapproval, modification or other decision or directive made by EPA pursuant to this Consent Order, Respondent shall notify EPA in writing of its objections, and the basis, therefore, within fourteen (14) calendar days of receipt of EPA's disapproval, decision or directive. Such notice shall set forth the specific points of the dispute, the position which Respondent asserts should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it considers necessary for EPA's determination. EPA and Respondent shall have an additional fourteen (14) calendar days from the receipt by EPA of the notification of objection, during which time representatives of EPA and Respondent shall confer in person or by telephone to resolve any disagreement. If an agreement is reached, the resolution shall be written and signed by an authorized representative of each party. If resolution is not reached within the twenty-eight (28) calendar days, EPA will furnish to Respondent, in writing, its decision on the pending dispute. Said written decision shall state the basis and rationale for the decision.

118. Except as provided in Paragraphs 116 and 117 above, the existence of a dispute, as defined in this Consent Order, and EPA's consideration of matters placed into dispute, shall not excuse, toll, or suspend any other compliance obligation or deadline required pursuant to this Consent Order during the pendency of the dispute resolution process.

## **XVII. FORCE MAJEURE**

119. Respondent shall perform the requirements of this Consent Order in the manner and within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a *force majeure*. Respondent shall have the burden of proving such a *force majeure*. A *force majeure* is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by due diligence and which delays or prevents performance in the manner or by a date required by this Consent Order. A

*force majeure* does not include increased costs of performance; changed economic circumstances; failure to obtain federal, state or local permits; reasonably foreseeable weather conditions; or weather conditions which could have been overcome by due diligence.

120. Respondent shall notify EPA, in writing, within ten (10) calendar days after it becomes or should have become aware of any event which Respondent claims constitutes a *force majeure*. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to prevent or minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this Paragraph 120 shall constitute a waiver of Respondent's right to assert a *force majeure* claim with respect to such event. If, in EPA's sole and unreviewable discretion, EPA determines that the failure to give notice was not prejudicial to EPA's efforts to protect human health or the environment, Respondent's failure to give notice shall not constitute a waiver. In addition to the above notification requirements, Respondent shall undertake all reasonable actions to prevent or to minimize any delay in achieving compliance with any requirement of this Consent Order after it becomes or should have become aware of any event which may delay such compliance.

121. If EPA determines that the failure to comply or delay has been or will be caused by a *force majeure*, the time for performance of that requirement of this Consent Order may be extended, upon EPA approval, for a period equal to the delay resulting from such *force majeure*. This shall be accomplished through a written EPA acknowledgement of a revised compliance date. Such an extension shall not alter the schedule for performance or completion of any other work required by this Consent Order unless the work is unavoidably affected by the delay. In the event that EPA and Respondent cannot agree that any delay or failure has been or will be caused by a *force majeure*, or if there is no agreement on the length of the extension, Respondent may invoke the dispute resolution procedures set forth in Section XVI (Dispute Resolution).

### **XVIII. RESERVATION OF RIGHTS**

122. EPA expressly reserves all rights and defenses that it may have, including the right to disapprove of work performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or re-perform any work disapproved, and to request that Respondent perform tasks in addition to those required by this Consent Order, consistent with the objectives of this Consent Order.

123. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order. This Consent Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, defenses, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, the Clean Water Act, the Safe Drinking Water Act, the Clean Air Act, or any other statutory, regulatory, or common law enforcement authority of the United States.

124. EPA reserves the right to perform any portion of the work required herein and seek reimbursement as specified in RCRA § 3013(d) and any other right EPA may have under applicable law.

125. EPA reserves whatever rights it may have under any environmental law or authority, or in equity, to seek to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Consent Order.

### **XIX. OTHER APPLICABLE LAWS**

126. All actions required to be taken by Respondent pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable federal, state, and local laws, regulations, permits, and ordinances.

127. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA, or any other applicable federal, state, or local laws, regulations, permits, and ordinances.

128. This Consent Order is not and shall not be interpreted to be a permit, or as a ruling or a determination of any issue related to a permit under federal, state or local law. This Consent Order shall not in any way affect Respondent's obligation, if any, to secure such a permit, nor shall this Consent Order be interpreted in any way to affect or waive any of the conditions or requirements that may be imposed by such permit, nor of Respondent's right to appeal any conditions of such permit. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

129. Nothing in this Consent Order is intended to preclude 3M from challenging the appropriateness of any EPA proposed MCL(s), health advisory(ies), or regulatory limits for PFAS that may be established by EPA in the future.

### **XX. OTHER CLAIMS**

130. Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity, against any person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any solid wastes, hazardous wastes, hazardous constituents, hazardous substances, pollutants, or contaminants found at, taken to, or migrating from the Facility.

131. Neither the United States nor EPA shall be deemed a party to any contract involving Respondent and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or omission of Respondent, its officers, employees, contractors, receivers, trustees, agents, or assigns, in carrying out the activities required by this Consent Order.

## **XXI. SUBSEQUENT MODIFICATION OF ORDER**

132. Except as provided in Paragraph 134 of this Section, the provisions of this Consent Order may be amended only by mutual agreement of EPA and Respondent. Any such amendment shall be in writing, shall be signed by an authorized representative of each party, shall be effective the date it is signed by EPA, and shall be deemed incorporated into this Consent Order. Any oral agreement between EPA and Respondent, the purpose of which is to modify this Consent Order to address exigent circumstances, and which is subsequently ratified in writing by EPA and Respondent, shall be effective on the date of such oral agreement.

133. Any reports, plans, specifications, schedules, other submissions and attachments required by this Consent Order are, upon written approval by EPA, incorporated into this Consent Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, other submissions, and attachments shall be considered a violation of this Consent Order and shall subject Respondent to the stipulated penalty provisions included in Section XV (Delay in Performance/Stipulated Penalties).

134. Minor modifications in the studies, techniques, procedures, designs or schedules utilized in carrying out this Consent Order and necessary for the completion of the project may be made by written agreement of the Project Coordinators. Such modifications shall be effective the date the agreement is signed by the EPA Project Coordinator.

135. No informal advice; guidance; suggestions; or comments by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

## **XXII. SEVERABILITY**

136. If any provision or authority of this Consent Order, or the application of this Consent Order to any party or circumstances, is held by any judicial or administrative authority to be invalid, the application of such provisions or circumstances and the remainder of the Consent Order shall not be affected thereby and shall remain in full force.

## **XXIII. TERMINATION AND SATISFACTION**

137. The provisions of this Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated to the satisfaction of EPA that the terms of the Consent Order, including any additional work determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed. Such notice shall not be unreasonably withheld. This notice shall not, however, terminate Respondent's obligations to comply with any continuing obligations hereunder, including, but not limited to, Section XIII (Record Preservation), Section XVIII (Reservation of Rights), Section XIX (Other Applicable Laws), and Section XX (Other Claims).

#### **XXIV. SURVIVABILITY/PERMIT INTEGRATION**

138. Subsequent to the issuance of this Consent Order, a permit or order may be issued to the Facility incorporating the requirements of this Consent Order by reference.

139. Any requirement of this Consent Order shall not terminate upon the issuance of a permit or order unless all relevant Consent Order requirements are expressly replaced by the requirements in the permit or all provisions of this Consent Order have been fully complied with to EPA's satisfaction in accordance with Section XVIII (Reservation of Rights) of this Consent Order.

#### **XXV. ATTORNEYS' FEES AND COSTS**

140. Except as otherwise provided herein, Respondent shall bear its own costs and attorneys' fees.

#### **XXVI. EFFECTIVE DATE AND AUTHORIZED REPRESENTATIVE**

141. The effective date of this Consent Order shall be the date of the final signature of the Consent Order.

142. The undersigned representative of 3M certifies that they are fully authorized to enter into the terms and conditions of this Consent Order and to execute and legally bind 3M to it.

**IT IS SO AGREED AND ORDERED:**

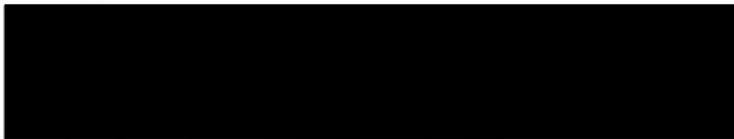
**GREGORY  
SULLIVAN**

Digitally signed by  
GREGORY SULLIVAN  
Date: 2025.01.17  
16:00:45 -05'00'

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Gregory Sullivan  
Director, Waste and Chemical Enforcement Division  
Office of Civil Enforcement  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency

3M consents to the terms and conditions of this Consent Order by its duly authorized representative on this 16th day of January 2025.



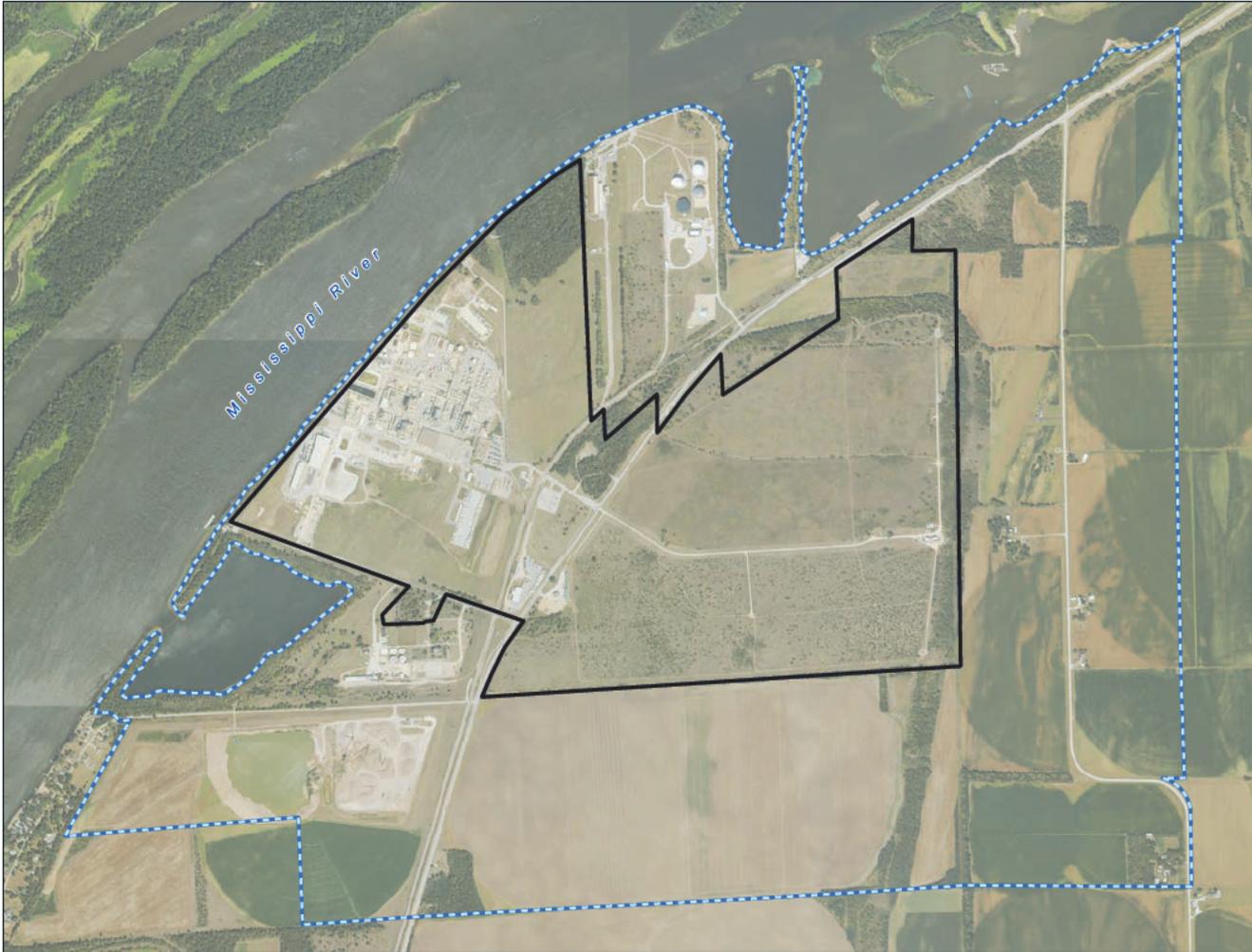
Steven Reich, Executive Vice President & Chief Counsel  
Enterprise Risk Management  
On behalf of 3M Chemical Operations LLC

## Attachment 1- PFAS Analyte List

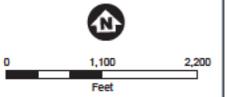
Analyte Name	Acronym	CAS Number
Perfluorotetradecanoic acid	PFTA	376-06-7
Perfluorotridecanoic acid	PFTTrDA	72629-94-8
Perfluorododecanoic acid	PFDoA	307-55-1
Perfluoroundecanoic acid	PFUnA	2058-94-8
Perfluorodecanoic acid	PFDA	335-76-2
Perfluorononanoic acid	PFNA	375-95-1
Perfluorooctanoic acid	PFOA	335-67-1
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorobutanoic acid	PFBA	375-22-4
Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluorononanesulfonic acid	PFNS	68259-12-1
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluoroheptanesulfonic acid	PFHpS	375-92-8
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluoropentanesulfonic acid	PFPeS	2706-91-4
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluorooctanesulfonamide	PFOSA	754-91-6
8:2 Fluorotelomer sulfonic acid	8:2 FTS	39108-34-4
6:2 Fluorotelomer sulfonic acid	6:2 FTS	27619-97-2
4:2 Fluorotelomer sulfonic acid	4:2 FTS	757124-72-4
N-Ethylperfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6
N-Methylperfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9
Perfluorododecanesulfonic acid	PFDoS	79780-39-5
N-Methylperfluorooctanesulfonamide	NMeFOSA	31506-32-8
N-Ethylperfluorooctanesulfonamide	NEtFOSA	4151-50-2
N-Methylperfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7
N-Ethylperfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
4,8-dioxa-3H-perfluorononanoic acid	ADONA	919005-14-4
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9

Analyte Name	Acronym	CAS Number
Pentafluoropropanoic acid	PFPrA	422-64-0
Perfluoro-3,6-dioxahexanoic acid	NFDHA	151772-58-6
Perfluoro(2-ethoxyethane) sulfonic acid	PFEESA	113507-82-7
included Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
2H,2H,3H,3H-Perfluorohexanoic Acid	3:3 FTCA	356-02-05
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3 FTCA	914637-49-3
2H,2H,3H,3H-Perfluorodecanoic acid	7:3 FTCA	812-70-4
2H-perfluoro-2-octenoic acid	FHUEA	70887-88-6
2H-perfluoro-2-decenoic acid	FOUEA	70887-84-2
Lithium Bis(trifluoromethane)sulfonimide <sup>1</sup>	HQ-115 (TFSI) <sup>1</sup>	90076-65-6

<sup>1</sup>As noted in ASTM D8421-24 and D8535-23, lithium is the counter ion; only Bis(trifluoromethane)sulfonimide is reported. TFSI is the anionic form of HQ-115



▬ Facility Boundary  
▬ Zone A Boundary



Imagery Source: NAIP, 2023.

**Zone A Area**  
3M Cordova Facility  
Cordova, IL

Attachment 2



