

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9**

IN THE MATTER OF:)	Docket No. PWS-AO-2024-10
)	
THE UNITED STATES AIR FORCE and)	
ARIZONA AIR NATIONAL GUARD)	
)	
Respondents.)	EMERGENCY ADMINISTRATIVE ORDER FOR RESPONSE ACTION
)	
Tucson International Airport Area Site, Pima County,)	
Arizona)	
)	
Proceedings pursuant to Section 1431(a) of the Safe)	
Drinking Water Act, 42 U.S.C. § 300i(a).)	
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I. AUTHORITY

1. This Administrative Order (“Order”) is issued to Respondents the United States Air Force (“USAF”) and the Arizona Air National Guard (“AANG”) (collectively “Respondents”) pursuant to the authority vested in the Administrator of the U.S. Environmental Protection Agency (“EPA”) by Section 1431(a) of the Safe Drinking Water Act (“SDWA”), 42 U.S.C. § 300i(a). The Administrator of EPA has delegated the authority to take these actions to EPA’s Regional Administrators by Delegation 9-17 (Imminent and Substantial Endangerment) (January 18, 2017), and the Regional Administrator for EPA Region 9 has redelegated the authority to the Director, Deputy Director, and Branch Chiefs of EPA Region 9’s Enforcement and Compliance Assurance Division (“ECAD”) pursuant to Regional Directive R9 9-17 (May 9, 2018).
2. Pursuant to Section 1431(a) of the SDWA, 42 U.S.C. § 300i(a), EPA may take such actions as deemed necessary, including to issue an order, when a contaminant is present in or is likely to enter a public water system or an underground source of drinking water (“USDW”), which may present an imminent and substantial endangerment to the health of persons, and appropriate state and local authorities have not acted to protect the health of such persons.

II. STATE COORDINATION

3. Pursuant to section 1431(a) of the SDWA, 42 U.S.C. § 300i(a), EPA consulted with the State of Arizona and local authorities on this matter to the extent practicable in light of such imminent endangerment.

III. PARTIES BOUND

4. This Order shall apply to and be binding on the Respondents, and upon their successors, departments, agencies, and instrumentalities as well as affiliated organizations, agents, contractors, and consultants.

IV. PURPOSE

5. This Order requires the Respondents to conduct measures to abate the actual and potential imminent and substantial threat to the health of persons presented by the presence of per- and polyfluoroalkyl substances (collectively “PFAS”) in groundwater underlying the Tucson Area Remediation Project (“TARP”) water well field, which serves as an important source of drinking water for the public water system that serves the City of Tucson.

V. DEFINITIONS

6. All terms not otherwise defined herein shall have their ordinary meanings unless defined in the SDWA, in which case the SDWA definition shall control.
 - a. “ADEQ” refers to the “Arizona Department of Environmental Quality.”
 - b. “Contaminant” shall mean “any physical, chemical, biological, or radiological substance or matter in water.” This definition includes “unregulated contaminants” within the meaning of the fifth Unregulated Contaminant Monitoring Rule (UCMR5), 86 Fed. Reg. 73131 (Dec. 2021), which requires analysis of substances which are suspected to be present in drinking water but that do not yet have health-based standards set under the SDWA. 42 U.S.C. § 300f(6).
 - c. “Day” shall mean a calendar day, unless otherwise specified.

- d. "EPA" or "the Agency" shall mean the United States Environmental Protection Agency.
- e. "Facility" shall mean both the Morris National Air Guard installation and Air Force Plant 44 as defined paragraphs 8 and 10 below.
- f. "Health Advisory or Health Advisories" shall mean the health advisories that EPA publishes, pursuant to its authority under the SDWA, for contaminants that are not subject to any national primary drinking water regulation. 42 U.S.C. § 300g-1(b)(1)(F). EPA develops health advisories to provide information on the chemical and physical properties, occurrence and exposure, health effects, quantification of toxicological effects, other regulatory standards, analytical methods, and treatment technology for drinking water contaminants. Health advisories describe concentrations of drinking water contaminants at which adverse health effects are not anticipated to occur over specific exposure durations (e.g., one-day, ten-days, and a lifetime). Health advisories serve as technical information to assist federal, state and local officials, as well as managers of public or community water systems in protecting public health. They are not regulations and should not be construed as legally enforceable federal standards. Health advisories may change as new information becomes available. Health advisories are non-regulatory and reflect EPA's assessment of the best available peer-reviewed science. 87 Fed. Reg. 36848 (June 21, 2022).
- g. "Order" shall mean this SDWA § 1431 Administrative Order, any attachments and appendices to this Order, and all documents that are to be produced or submitted pursuant to this Order, once the latter documents are approved by EPA pursuant to Section XIV. All attachments or appendices to this Order, and all documents that are to be produced or submitted pursuant to this Order are incorporated into this Order and shall be enforceable hereunder. In the event of conflict between this Order and any document attached to, incorporated into, or enforceable hereunder, the provisions of this Order shall control.
- h. "PFAS" 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 man-made

chemicals containing a mix of fully fluorinated carbon atoms, partially fluorinated carbon atoms, and nonfluorinated carbon atoms. PFAS includes, *inter alia*, perfluorooctanoic acid (PFOA); perfluorooctane sulfonate (PFOS); hexafluoropropylene oxide dimer acid (HFPO-DA) (a.k.a. "GenX"); and perfluorobutane sulfonic acid and its potassium salt (PFBS).

- i. "Public Water System" or "PWS" shall mean a system that provides piped drinking water for human consumption, 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, within the meaning of Section 1401(4) of the SDWA, 42 U.S.C. § 300f(4), and 40 C.F.R. § 141.2.
- j. "Underground source of drinking water" or "USDW" shall mean an aquifer or its portion:
 - (i)(A) which supplies any public water system, or (B) which contains a sufficient quantity of ground water to supply a public water system; and either (1) currently supplies drinking water for human consumption, or (2) contains fewer than 10,000 milligrams per liter total dissolved solids; and (ii) which is not an exempted aquifer. 40 C.F.R. § 144.3.

VI. FINDINGS OF FACT

- 7. Respondent USAF is a "Federal agency" as defined in Section 1401(11) of the SDWA, 42 U.S.C. § 300f(11), which includes "any department, agency, or instrumentality of the United States."
- 8. USAF owns Air Force Plant #44 ("AFP 44"), located on approximately 1,365 acres southwest of the Tucson International Airport (the "Airport"), which is a contractor-operated military industrial facility manufacturing, modifying, and maintaining missile systems for the United States Department of Defense, foreign military sales, and direct commercial sales.
- 9. Respondent AANG is a "Federal agency" as defined in Section 1401(11) of the SDWA, 42 U.S.C. § 300f(11), which includes "any department, agency, or instrumentality of the United States."
- 10. AANG operates on the Morris Air National Guard ("MANG") Base, formerly known as the AANG Base, located at 1700 E. Valencia Street, Tucson, Arizona.

11. Tucson Airport Authority (“TAA”) is a nonprofit corporation organized and existing under A.R.S. §§ 10–451 to 10–458 (the Arizona nonprofit corporation law), and the statutes that were replaced by such sections.
12. TAA operates the Airport, located in Tucson, Arizona.
13. In 1978, Arizona obtained primary enforcement authority for drinking water systems in the state. 43 Fed. Reg. 38083 (Aug. 25, 1978).
14. From the 1950s through the mid-1970s, trichloroethylene (“TCE”) was used as a general-purpose solvent and degreaser at AFP 44 and the Airport. At AFP 44, 1,4-dioxane was also used as a stabilizer to enhance the life of the solvent bath for degreasing manufactured parts. TCE and 1,4-dioxane were disposed of at AFP 44 and at the Airport, where these waste solvents, and other substances, migrated into groundwater.
15. As the result of groundwater contamination from AFP 44 that has combined with a separate contamination plume originating at the Airport, EPA listed the Tucson International Airport Area Superfund Site (the “Site”) on the National Priorities List, 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on September 8, 1983. The Site encompasses approximately ten square miles in the southeastern part of the City of Tucson, in Pima County, Arizona, and encompasses groundwater contaminated with, among other things, volatile organic compounds, including TCE and 1,4-dioxane, as well as PFAS, located beneath the Airport, AFP 44, and the MANG Base.
16. On June 5, 1991, the United States District Court for the District of Arizona entered a consent decree in *United States v. Tucson Airport Authority, et al.*, D. Ariz. Civ. No. 90-587-TUC-RMB (“TARP Decree”), requiring the parties to the TARP Decree to install a groundwater remediation system, including extraction wells and a treatment plant, referred to as the TARP, at the northwest portion of the Site to capture groundwater in the aquifer at the northern end of the Site’s plume, prevent the plume’s northward migration toward the city of Tucson, and treat water from the TARP’s extraction well field for TCE. Pursuant to the TARP Decree, the City of Tucson was obligated to take the effluent from the treatment plant for use in its potable water distribution system.

17. In 1994, the City of Tucson (signatory to the TARP Decree), which includes the City of Tucson's water department ("Tucson Water"), an operator of a public water system serving the residents of Tucson, began operation of the TARP. Initially, the TARP was designed only to remove TCE.
18. In 2002, 1,4-dioxane was detected in the TARP wellfield, prompting Tucson Water to blend the contaminated water with potable water from another source to lower the 1,4-dioxane levels to below 3 parts per billion: the level above which the City of Tucson publicly stated that it would not serve water with 1,4-dioxane based on an Arizona Drinking Water Health Advisory and EPA Region 9's toxicology assessment for 70-year exposures.
19. Tucson Water installed an Advanced Oxidation Process ("AOP") Water Treatment Facility adjacent to the TARP facility in 2014. The AOP Facility uses ultraviolet light with hydrogen peroxide injection (UV-peroxide) to treat for 1,4-dioxane. Tucson Water also installed a granular activated carbon ("GAC") treatment to quench residual hydrogen peroxide in the water prior to its final treatment and delivery into the Tucson water supply.
20. On May 25, 2016, EPA published lifetime health advisories and health effects support documents for certain PFAS contaminants (PFOA and PFOS) with an advisory level of 70 parts per trillion ("ppt"). 81 Fed. Reg. 33250.
21. On June 15, 2022, EPA published interim updated lifetime drinking water health advisories for PFOA and PFOS that supersede those EPA published in 2016. 87 Fed. Reg. 36848. The interim advisory levels indicated that some negative health effects may occur with concentrations of PFOA or PFOS in water that are near zero (0.004 ppt for PFOA and 0.02 ppt for PFOS). At that time, EPA issued final health advisories for HFPO-DA at 10 ppt and perfluorobutane sulfonic acid and its related compound potassium perfluorobutane sulfonate (together referred to as "PFBS") at 2,000 ppt. *Id.*
22. Scientific studies have found that exposure, even at low levels, to certain PFAS chemicals may result in adverse health impacts to the immune system, the cardiovascular system, human development (*e.g.*, decreased birth weight), and suppression of vaccine response (decreased serum antibody concentrations) in children. Furthermore, studies have linked oral exposure to adverse health effects on the liver, the kidneys, and the immune system,

as well as cancer. Studies have found, following oral exposure, adverse health effects on the thyroid, reproductive organs and tissues, and developing fetuses.

23. Many PFAS chemicals are environmentally persistent, bioaccumulative, and have long half-lives in humans.
24. On April 10, 2024, EPA promulgated maximum contaminant levels (“MCLs”) pursuant to the SDWA, which become effective June 25, 2024, for six PFAS. The MCLs are 4 ppt for PFOA, 4 ppt for PFOS, 10 ppt for PFHxS, 10 ppt for PFNA, 10 ppt for HFPO-DA, and a hazard index of 1 (unitless) as the MCL for any mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS.
25. On April 17, 2024, EPA promulgated hazardous substance designations pursuant to CERCLA, effective July 8, 2024, for PFOA and PFOS, including their salts and structural isomers. As stated in the designation, EPA reached this decision after evaluating the available scientific and technical information about PFOA and PFOS and determining that they may present a substantial danger to the public health or welfare or the environment when released.
26. PFAS have been identified in the USDW at the Site in concentrations as high as 53,000 ppt.
27. In 2014, Tucson Water began treating groundwater for PFAS at TARP using the GAC system originally installed to quench excess hydrogen peroxide resulting from the UV AOP for 1,4-dioxane treatment.
28. Beginning in 2018, Tucson Water detected multiple PFAS chemicals at wells in the TARP well field. The concentration of PFAS chemicals at the TARP facility was about 30 ppt. Tucson Water temporarily shut down three wells to reduce the amount of PFAS contamination entering the TARP facility. Currently, five wells remain out of service due high concentrations of PFAS that cannot be addressed by the existing TARP system.
29. There currently is no extraction and treatment system for containing or treating PFAS contaminated groundwater from AFP 44 or the MANG Base, which allows PFAS to migrate northwest and throughout the TARP system’s wellfield.
30. Respondents have caused or contributed to the endangerment described immediately herein by USAF’s use and/or disposal of PFAS at AFP 44 and/or AANG’s use and/or disposal of PFAS at the MANG Base.

31. With the GAC system currently serving the dual purposes of peroxide quenching and PFAS adsorption, GAC bed life is significantly reduced, requiring media change-out multiple times per year, as opposed to every three to five years. The GAC system will require media replacement with increased frequency as PFAS concentrations have increased in the TARP wellfield as the PFAS plume continues to migrate further across the TARP wellfield and remedial action to address PFAS contamination has not yet occurred.
32. The effect of PFAS on the TARP GAC filters has created an unanticipated and unreasonable impact to Tucson Water's operation of the TARP to ensure drinking water quality for the residents of Tucson.
33. On June 21, 2021, elevated PFAS levels that had the potential to break through the GAC system caused Tucson Water to temporarily shut down the TARP to avoid serving contaminated drinking water.
34. In November 2021, Tucson Water resumed operation of TARP to continue to treat TCE and 1,4-dioxane, but only after constructing a temporary pipeline and outfall structure to discharge treated water from the TARP facility to the Santa Cruz River, which borders the TARP to the west. This change in treated water end use has removed a significant volume from Tucson Water's potential drinking water supply (estimated at 8 percent).
35. In 1984, EPA designated the Upper Santa Cruz and Avra-Altar Aquifers as the sole or principal source of drinking water for the Tucson Active Management Area, noting that these aquifers, if contaminated, would create a significant hazard to public health. The Upper Santa Cruz aquifer includes TARP source water and remains a vital component of Tucson's portfolio of drinking water sources, but is now contaminated with PFAS levels above the recently promulgated MCLs. The City of Tucson also receives water from sources in the Colorado River through the Central Arizona Project, but there is currently a dramatic reduction in availability from these sources.
36. PFOA and PFOS at the Site are commingled in groundwater with PFNA, PFHxS, and PFBS.
37. From 2016 through 2024, samples of groundwater have been collected from the Site and TARP. Samples show exceedances of the MCLs for PFOA and PFOS. The samples also show exceedances of the MCLs for PFNA, PFHxS, and PFAS mixtures that include PFBS.

38. Regarding PFOS, sampling has shown levels at the Site as high as 30,000 ppt (MCL is 4 ppt). Regarding PFOA, sampling has shown levels at the Site as high as 2,400 ppt (MCL is 4 ppt).
39. Regarding PFNA, sampling has shown levels at the Site as high as 73 ppt (MCL is 10 ppt). Regarding PFHxS, sampling has shown levels at the Site as high as 53,000 ppt (MCL is 10 ppt). Regarding PFBS, sampling has shown levels as high as 11,000 ppt (Hazard Index MCL is 1 (unitless)).
40. Because PFAS levels have been observed as high as 53,000 ppt in the USDW at the Site and the PFAS plume has impacted the TARP wellfield, where Tucson Water is extracting water contaminated with TCE and 1,4-dioxane for treatment by the TARP system and has had to remove extraction wells from service due to high levels of PFAS. PFAS concentrations risk "break through" of the GAC and impair Tucson Water's ability to use the AOP to reduce the contaminants in the water to safe levels.

VII. ENDANGERMENT AND RESPONSE

41. There is a release or threat of release of PFAS from AFP 44, the Airport, and the MANG Base, as demonstrated by the detection of PFAS in groundwater from the aquifer underlying the TARP system, a system that may provide drinking water to the City of Tucson.
42. PFAS sampling conducted at AFP 44, the Airport, and the MANG Base, including sampling from 2016 through 2024, demonstrates that PFAS contamination has come from these properties.
43. TARP is not currently designed to treat PFAS but must continue to operate to address the TCE and 1,4-dioxane contaminated groundwater plume emanating from AFP 44, the MANG Base and the Airport, and to prevent its further migration into north Tucson.
44. The aquifer underlying the TARP wellfield is a USDW, and it supplies a public drinking water system, Tucson Water (PWS AZ0410112), with a supply of water for human consumption.
45. The USDW underlying the TARP wellfield is not an "exempted aquifer" within the meaning of 40 C.F.R. § 146.4.
46. PFAS have been identified in the USDW at certain areas in the Site in concentrations as high as 53,000 ppt.
47. In 2018, Tucson Water detected multiple PFAS chemicals at wells in the TARP wellfield. The concentration of PFAS chemicals at the TARP AOP facility was about 30 ppt. Tucson Water

temporarily shut down three wells to reduce the amount of PFAS contamination entering the TARP facility. Currently, five wells remain out of service due high concentrations of PFAS that cannot be addressed by the existing TARP system.

48. High levels of PFAS are migrating through the TARP wellfield, where Tucson Water is extracting water contaminated with TCE and 1,4-dioxane for treatment by the TARP system. Furthermore, given the concentrations of PFAS, PFAS will continue to impact Tucson Water’s ability to use the GAC system to reduce the contaminants in the water to safe levels and effectively treat 1,4-dioxane. This could result in a shutdown of TARP AOP system, which would result in the inability to effectively treat and restore the water from that system as a drinking water resource. Such shutdown would also halt Tucson Water’s existing treatment remedy for TCE and 1,4-dioxane, potentially also impacting the regional aquifer with migrating concentrations of TCE and 1,4-dioxane.

VIII. CONCLUSIONS OF LAW

49. Respondents are each a “person” as that term is defined in section 1401(12) of the SDWA, 42 U.S.C. § 300f(12).
50. PFAS is a “contaminant,” as that term is defined in section 1401(6) of the SDWA, 42 U.S.C. § 300f(6). This definition includes “unregulated contaminants” within the meaning of the fifth Unregulated Contaminant Monitoring Rule (UCMR5), 86 Fed. Reg. 73131 (Dec. 2021), which requires analysis of substances which are suspected to be present in drinking water but that do not yet have health-based standards set under the SDWA.
51. The PFAS found in the groundwater underlying or near AFP 44, the Airport, and the MANG Base resulting from Respondents’ use, emissions, releases, discharges, disposal, and/or land application of PFAS is present in or likely to enter the groundwater extracted by the TARP wellfield for its intended use as a supply of drinking water for the City of Tucson.
52. The groundwater aquifer that contains the TARP wellfield is an USDW as that term is defined at 40 C.F.R. § 144.3.
53. Because (a) PFOS at levels as high as 30,000 ppt or 7,500 times the MCL (MCL is 4 ppt), PFOA at levels as high as 2,400 ppt or 600 times the MCL (MCL is 4 ppt), PFNA at levels as high as 73 ppt

or 7.3 times the MCL (MCL is 10 ppt), PFHxS at levels as high as 53,000 ppt or 5,300 times the MCL (MCL is 10 ppt), and PFBS at levels as high as 11,000 ppt (Hazard Index MCL is 1 (unitless)) (1) are contaminants, (2) are present in a USDW, and (3) are likely to enter into the Tucson public water system, and (b) because temporary measures being taken by the City of Tucson to keep levels of PFAS below the MCLs are not sustainable, the availability of clean drinking water from other sources is limited, GAC breakthrough of PFAS, 1,4 Dioxane and TCE contamination is expected, and the City of Tucson cannot ensure public water users remain protected from risk of exposure, this PFAS contamination may present an imminent and substantial endangerment to the health of persons, within the meaning of 1431(a) of the SDWA, 42 U.S.C. § 300i(a).

54. Arizona and the local authorities have not acted sufficiently to address all measures covered under this Order that are necessary to protect the health of persons.

IX. DETERMINATIONS

Based on the foregoing and the EPA Administrative Record for this Order, EPA has determined that:

55. As described herein, including Section V (Endangerment and Response), potential drinking water exposure to PFAS at levels identified in the groundwater aquifer of the TARP wellfield, in addition to the limited of availability of clean drinking water from other sources, and the possibility of GAC breakthrough of PFAS, 1,4, Dioxane, and TCE may present an imminent and substantial endangerment to the health of persons, within the meaning of section 1431(a) of the SDWA, 42 U.S.C. § 300i(a).
56. The actions required by this Order are necessary to protect the health of persons who are or may be users of the groundwater aquifer that contains the TARP wellfield, including those served by the public water system that utilizes that water. Based on the endangerment described above, the response actions in this Order are necessary.

X. ORDER

Based on EPA's jurisdiction, Findings of Fact, Endangerment and Response, Conclusions of Law, and Determinations set forth above, the Administrative Record supporting issuance of this Order, and in

order to abate or prevent any imminent and substantial endangerment to health, the Respondents are ORDERED to perform all work required under this Order. The Respondents shall comply with the following provisions and perform all actions required by the terms and conditions of this Order.

57. **PFAS Water Treatment Plan.** Within sixty (60) days of the Effective Date of this Order, Respondents shall submit to EPA for its review and approval a PFAS Water Treatment Plan as described in Paragraph 60, that describes Respondents' engineered solution for a long-term water treatment method to ensure water extracted from the TARP well field meets the promulgated MCLs to allow for the use of TARP water as a source of drinking water by Tucson Water for its public water system.
58. Upon EPA approval of the PFAS Water Treatment Plan, Respondents shall implement such PFAS Water Treatment Plan in accordance with its terms.
59. Respondents shall ensure operation and maintenance of the TARP is not adversely impacted by implementation of the PFAS Water Treatment Plan.
60. The PFAS Water Treatment Plan shall include:
 - a. A proposed schedule, including milestones and a period for providing progress reports. Progress reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems;
 - b. The name, address, and qualifications of a proposed Supervising Contractor and the name and telephone number of the Supervising Contractor's primary contact person. The Respondents shall also notify EPA of the identity and qualifications of any other new or replacement contractor(s) or subcontractor(s) to be used at least seven (7) days in advance of their performing any work under this Order. The Supervising Contractor shall be a qualified professional with substantial expertise and experience in the investigation and cleanup of hazardous waste sites and contaminated groundwater. EPA reserves the right to disapprove, based on professional qualifications, conflicts of interest, or deficiencies in previous similar work, any contractor or subcontractor or other person

engaged directly or indirectly by the Respondents to conduct work activities under this Order. If EPA disapproves the selection of any proposed contractor, Respondents shall notify EPA in writing of the name, address, and qualifications of another contractor within seven (7) days after receipt of the notice of disapproval;

- c. The identification of a Project Coordinator who shall be responsible for administration of all of the Respondents' actions called for by this Order, including the designated Project Coordinator's address, email contact and telephone number. EPA will deem the Project Coordinator's receipt of any notice or communication from EPA relating to this Order as receipt by the Respondents. Notice of a substitution or replacement of a designated Project Coordinator shall occur at least seven (7) days in advance of their performing any work under this Order;
- d. Evaluation, characterization and delineation of PFAS contamination and an evaluation of nature, extent and fate and transport of PFAS present in the aquifer;
- e. Sampling, using EPA-approved drinking water methods 533 and 537.1, of public and private drinking water wells that are potentially impacted by PFAS, a schedule for that sampling and proposed measures to address PFAS contaminated drinking water above the MCLs; and
- f. Proposed measures for addressing high concentration areas of PFAS to mitigate and minimize impacts to the TARP wellfield.

- 61. Within forty-five (45) days of completing the Work required by the PFAS Water Treatment Plan, the Respondents shall submit to EPA for approval a Completion Report summarizing the activities conducted pursuant to the PFAS Water Treatment Plan. The Completion Report shall include a summary of the activities completed to comply with this Order, a summary of all analytical data generated during implementation of the PFAS Water Treatment Plan, and a demonstration of achievement of performance goals. The Completion Report shall be certified by the Supervising Contractor and the Air Force, to the effect that all response activities have been completed in full satisfaction of the requirements of this Order.
- 62. Document Certification. Any deliverable submitted by Respondents shall be certified by a "Principal executive officer" and shall be in the following form:

I certify under penalty of law that this document and all attachments/appendices 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, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations.

63. Based on the findings of groundwater sampling conducted at the TARP, upon written notice by EPA, Respondents may be required to implement further emergency measures and/or PFAS treatment should groundwater sampling show the need.

XI. ACCESS

64. To the extent Respondent own, occupy, lease or control property at the Facility or property other than the Facility to which access is required in order to properly carry out the terms of this Order, it shall grant access to EPA, ADEQ, and their officers, employees, agents, contractors, consultants, and other authorized representatives for purposes of implementing and monitoring work to be performed under this Order.
65. To the extent access to, use ownership of, or easements over property is required for the proper and complete implementation of this Order, the Respondents shall use best efforts to obtain site access agreements or other interests in the property, in writing, sufficient to allow implementation of this Order within **thirty (30) days** after the Order's effective date. For purposes of this paragraph, "best efforts" include but are not limited to, the payment of money, consistent with the Anti-Deficiency Act, in consideration of access to property.
66. Such written access agreements or other interests obtained pursuant to the preceding paragraph shall provide EPA, ADEQ, and their officers, employees, agents, contractors,

consultants, and other authorized representatives access to the Facility or other such property at all times for purposes of implementing and monitoring work under this Order. Such written access agreements or other interests shall specify that the Respondents are not EPA's representatives or agents with respect to liability associated with the Site.

67. In the event that site access agreements or other interests sufficient for implementation and monitoring of work under this Order are not obtained within the time period specified above, the Respondents shall notify EPA in writing within **three (3) days** thereafter regarding the lack of such agreements and the efforts made by the Respondents to obtain them. Lack of access shall not excuse or justify failure to perform any activity or to meet any deadline not requiring or directly dependent upon such access.

XII. OPPORTUNITY TO CONFER

68. Within three (3) days after receipt of this Order, Respondents USAF and AANG may request a conference with the Director of EPA Region 9's Enforcement and Compliance Assurance Division or designee to be held no later than six (6) days after Respondents' receipt of this Order. Request for a conference should be submitted to:

Jon Owens, Attorney-Advisor
EPA Region 9, Office of Regional Counsel
owens.jon@epa.gov

and

Rich Campbell, Attorney-Advisor
EPA Region 9, Office of Regional Counsel
campbell.rich@epa.gov

69. The purpose and scope of the conference shall be to discuss the issue(s) that Respondents USAF and AANG would like the ECAD Director to consider in connection with this Order. Respondents USAF and AANG should submit copies of all necessary information regarding the issue(s) to be discussed. The conference is not an evidentiary or adversarial hearing and is not part of any proceeding to enforce or challenge the Order. At any conference held pursuant to

this Section, Respondents USAF and AANG may appear in person or by attorney or other representative.

XIII. NOTICE OF INTENT TO COMPLY

70. Respondents shall each provide, within 48 hours after the Effective Date of this Order, written notice to EPA stating whether Respondent will comply with the terms of this Order. If Respondents do not unequivocally commit to perform the work required by this Order, Respondents shall be deemed to have violated this Order and to have failed or refused to comply with this Order. The absence of a response by EPA to the notice required by this paragraph shall not be deemed to be acceptance of Respondents' assertions.

XIV. SUBMISSIONS REQUIRING EPA APPROVAL

71. For any submission required under this Order for EPA approval, EPA may approve or disapprove in writing the submission, in whole or in part. If EPA disapproves a submission, or any component of a submission, Respondents shall address all deficiencies identified by EPA and resubmit the submission or relevant components for EPA's review within fourteen (14) days of receipt of EPA's disapproval. Respondents shall immediately implement those components of a submission that have been approved by EPA. Any submission or component of a submission approved by EPA become enforceable conditions of this Order.

XV. QUALITY ASSURANCE/SAMPLING

72. Immediately upon receipt, Respondents shall submit to EPA and ADEQ the results of all sampling or tests and all other data, including raw and quality assured, generated by the Respondents, their contractor(s), or on the Respondents' behalf in the course of implementing this Order. The Respondents shall also provide for EPA review and approval the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

73. On request, the Respondents shall allow EPA, ADEQ, or their authorized representatives to take split samples.
74. Data Management and Evaluation. Respondent shall prepare and upload any generated environmental, geospatial, imagery, UAS, or related data into EPA designated data management platforms. The primary data management platforms EPA anticipates using are SCRIBE, EPA GeoPlatform, Superfund Enterprise Management System (SEMS) and the DMAP Superfund Data Workbench (as available). EPA may also specify use of other data management platforms and tools. Settling Defendant should not use proprietary software that must be paid for by EPA to access the data. All environmental and related data shall be uploaded to the appropriate EPA designated data management platform upon receipt of data. The Supervising Contractor shall migrate any applicable spatial and tabular data into the appropriate EPA specified data management platform (SCRIBE, ArcGIS). Sampling and monitoring data should be submitted in standard regional Electronic Data Deliverable (“EDD”) format, via email. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes. Spatial data, including spatially referenced data and geospatial data, should be submitted: (1) in the ESRI File Geodatabase format; and (2) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (“NAD83”) or World Geodetic System 1984 (“WGS84”) as the datum and the datum used should be specified. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (“FGDC”) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (“EME”), complies with these FGDC and EPA metadata requirements and is available at <https://edg.epa.gov/EME/>.
75. Geospatial Data Management Responsibilities: Respondent shall manage the developed or acquired geospatial data for long-term project use. All geospatial data, whether site-specific or base data covering the entire region, are required to be managed in an enterprise fashion and updated on an ongoing basis. Specific and additional data development and data management

tasks will be provided at the direction of the EPA Project Coordinator. All GIS deliverables will meet the requirements laid out in the Region 9 Superfund Program Geospatial Data Delivery Guidance, Region 9 Metadata Quick Guide, Region 9 Pro Project Design Guide and National Geospatial Data Policy (https://www.epa.gov/sites/default/files/2014-08/documents/national_geospatial_data_policy_0.pdf), or subsequent version of the documents, to ensure that geospatial deliverables are available for future use by EPA. Where specific guidance is not explicitly provided, Respondent shall adhere to the data format standards prescribed on the EPA's Geospatial Policies and Standards page (<https://www.epa.gov/geospatial/geospatial-policies-and-standards>). Each file must include an attribute name for each site unit or sub-unit submitted. Consult <https://www.epa.gov/geospatial/geospatial-policies-and-standards> for any further available guidance on attribute identification and naming. Spatial data submitted by Respondent does not, and is not intended to, define the boundaries of the Site.

XVI. WEEKLY UPDATES

76. Within five (5) business days of this Order's Effective Date, Respondents must begin and continue to submit weekly updates to EPA on Respondents' progress complying with this Order. At a minimum, the update should include any measures Respondents have taken to identify and address the problems with implementation of the PFAS Water Treatment Plan, any sample data, and a summary of all efforts to meet the requirements of this Order. Weekly updates must be submitted via email to the following points of contact, or their successor, for EPA and ADEQ:

Mary Aycock
Superfund and Emergency Management Division
aycock.mary@epa.gov

and

Christopher Chen
Enforcement and Compliance Assurance Division
chen.christopher@epa.gov

and

Chris Perkovac
Arizona Department of Environmental Quality
perkovac.chris@azdeq.gov

XVII. ANTI-DEFICIENCY ACT

77. Respondents USAF and AANG shall seek all existing funds to meet the requirements of this Order. Failure to obtain adequate funds or appropriations from Congress does not release Respondents USAF or AANG from obligations to comply with the Order. Nothing in this Order shall be interpreted to require obligations or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

XVIII. GENERAL PROVISIONS

Effects of this Order

78. This Order does not affect any legal requirement or EPA's legal enforcement options in this matter.
79. This Order constitutes final agency action.
80. This Order does not relieve Respondents from their obligation to comply with any applicable federal, state, tribal, or local law.
81. EPA reserves all rights against the Respondents and all other persons to take any further enforcement pursuant to any available legal authority. Nothing in this Order shall preclude EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional actions as the EPA may deem necessary, and/or from requiring Respondents in the future to perform additional activities pursuant to the SDWA or any other applicable law.

Severability

82. If a court issues an order that invalidates any provision of this Order or finds that a Respondent has sufficient cause not to comply with one or more provisions of this Order, such Respondent shall remain bound to comply with all provisions of this Order not invalidated by such court's order.
83. The provisions of this Order shall remain in full force and effect until all actions required by this Order have been completed and EPA has notified the Respondents in writing that the actions required by this Order have been completed. Respondents shall notify EPA in writing at such time as they believe that all such actions have been completed. EPA shall have sole discretion in determining whether all such actions have in fact been completed. Failure to complete all actions required hereunder as directed by EPA shall be deemed a violation of this Order. EPA's provision of written notice to Respondents pursuant to this paragraph shall not be construed as a waiver of any of EPA's rights to take further enforcement action under SDWA or any other laws.

Enforcement: Penalties for Noncompliance

84. In the event Respondents USAF or AANG violate, fail or refuse to comply with any of the terms or provisions of this Order, EPA may commence an administrative penalty action under Section 1447(b) of SDWA, 42 U.S.C. § 300j-6, for civil penalties of up to \$29,154 for each day in which such violation occurs or failure to comply continues, as adjusted by the Federal Civil Penalties Inflation Adjustment Act of 1990, amended by the Debt Collection Improvement Act of 1996, and the subsequent Civil Monetary Penalty Inflation Adjustment Rule, 40 C.F.R. Part 19; *see also* 88 Fed. Reg. 89309 (Dec. 27, 2023). Additionally, any such violation, failure or refusal may subject Respondent USAF and AANG to a citizen's civil action under Section 1449 of SDWA, 42 U.S.C. § 300j-8.

No Release of Liability and Reservations

85. Respondents are jointly and severally liable for the endangerment described herein, and for compliance with this Order. Compliance or noncompliance by any Respondent with any provision of this Order shall not excuse or justify noncompliance by any other Respondent.
86. Nothing in this Order shall constitute or be construed as a satisfaction or release from any claim, cause of action, or demand in law or equity against the Respondents or any other person, whether or not a party to this Order, for any liability such person may have for any conditions or claims arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Site, including but not limited to any and all claims of the United States for money damages and interest under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), or under any other applicable statute or the common law.
87. EPA reserves all rights it may have to take any further civil or criminal enforcement action against the Respondents and all other persons pursuant to any available legal authority, including the right to seek injunctive relief, the recovery of money expended or to be expended (plus interest), monetary penalties, criminal sanctions, or punitive damages regarding: (i) any violation of this Order; or (ii) any actual or potential threat to human health or welfare or the environment, or any release or threat of release of hazardous substances on, at, in, or near the Site.
88. EPA further expressly reserves the right both to disapprove work performed by the Respondents and to request or order the Respondents to perform tasks in addition to those detailed in this Order. In addition, EPA reserves all rights it may have to undertake response actions at any time and to perform any and all portions of the work activities that the Respondents have failed or refused to perform properly or promptly, and to seek reimbursement from Respondents for its costs, or seek any other appropriate relief.
89. Notwithstanding any other provision of this Order, EPA shall retain all of its information gathering, entry, inspection, and enforcement authorities and rights under any applicable law, regulation, or permit.

90. By issuance of this Order, EPA assumes no liability for injuries or damages to persons or property resulting from acts or omissions by the Respondents, their officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out activities pursuant to this Order. EPA shall not be held as a party to any contract entered into by the Respondents or their employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out activities pursuant to this Order.

Amendment

91. This Order may only be amended in writing by signature of the Enforcement and Compliance Assurance Division Director of EPA Region 9.
92. No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by the Respondents shall be construed as relieving the Respondents of their obligation to obtain such formal approval as may be required by this Order.

Termination of this Order

93. The provisions of this Order shall be deemed satisfied upon Respondents' receipt of written notice from EPA that Respondents have demonstrated, to the satisfaction of EPA, that all terms of this Order, including any additional tasks determined by EPA to be required under this Order or any continuing obligation or promises, have been satisfactorily completed. EPA shall have the sole discretion in determining whether all such actions have in fact been completed.

[Continues on next page.]

Effective Date

94. This Order constitutes a final agency action and shall become effective within seven (7) calendar days of receipt of this Order if no conference with the ECAD Director for EPA Region 9 is requested pursuant to Section XI (Opportunity to Confer) of this Order. If a conference with the ECAD Director is requested by USAF in the time and manner provided in Section XI (Opportunity to Confer), this Order shall become effective (the "Effective Date") within five (5) calendar days of Respondents' receipt of the ECAD Director's decision. All times for performance of Work under this Order shall be calculated from the Effective Date. When computing any period of time under this Order, if the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the next working day.

Issued and effective this 29 day of May 2024.

_____/s/_____
Amy C. Miller-Bowen, Director
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 9

Of counsel:

Rich Campbell
Office of Regional Counsel
U.S. EPA – Region 9

Jon Owens
Office of Regional Counsel
U.S. EPA – Region 9