

1 GREG C. LOARIE, California Bar No. 215859  
Earthjustice  
2 50 California Street, Suite 500  
San Francisco, CA 94111  
3 gloarie@earthjustice.org  
4 Tel: 415.217.2000 / Facsimile: 415.217.2040

5 JONATHAN KALMUSS-KATZ,\* New York Registration No. 4917290  
SUZANNE NOVAK,\* New York Registration No. 292574  
6 SOPHIA B. JAYANTY,\* New York Registration No. 5570056  
Earthjustice  
7 48 Wall Street, 15th Floor  
New York, NY 10005  
8 snovak@earthjustice.org  
9 jkalmusskatz@earthjustice.org  
10 sjayanty@earthjustice.org  
11 Tel: 212.845.7376 / Facsimile: 212.918.1556  
\* *Pro hac vice* motion forthcoming

12 *Counsel for Plaintiffs*

13  
14 IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA

15 SAVE OUR COUNTY, COMMUNITY IN- )  
16 POWER AND DEVELOPMENT )  
17 ASSOCIATION INC., UNITED )  
18 CONGREGATIONS OF METRO EAST, and )  
19 SIERRA CLUB, )

20 Plaintiffs,

21 v.

22 UNITED STATES DEFENSE LOGISTICS )  
23 AGENCY, DARRELL K. WILLIAMS, in his )  
24 official capacity as Director of the Defense )  
25 Logistics Agency, UNITED STATES )  
26 DEPARTMENT OF DEFENSE, MARK T. )  
27 ESPER, in his official capacity as Secretary of )  
the Department of Defense, HERITAGE )  
28 ENVIRONMENTAL SERVICES, LLC, and )  
TRADEBE TREATMENT AND RECYCLING, )  
LLC, )

Defendants.

Case No. \_\_\_\_\_

**COMPLAINT FOR DECLARATORY AND  
INJUNCTIVE RELIEF**

(National Environmental Policy Act,  
Administrative Procedure Act)

**INTRODUCTION**

1  
2 1. This case challenges the U.S. Department of Defense’s (the “Defense Department”  
3 or “Department”) failure to conduct any environmental review and to comply with applicable  
4 environmental requirements before approving the incineration of millions of gallons of toxic  
5 firefighting foam, in violation of the National Environmental Policy Act (“NEPA”) and the  
6 National Defense Authorization Act (the “NDAA”).

7 2. The Defense Department is the nation’s largest user of firefighting foam made  
8 from per- and polyfluoroalkyl substances (“PFAS”), a class of highly persistent and toxic  
9 chemicals that cause cancer, liver disease, infertility, and other serious health effects. Hundreds of  
10 PFAS releases from military bases and installations across the country have resulted in widespread  
11 soil and drinking water contamination. Facing multiple lawsuits and billions of dollars in potential  
12 liability from those releases, the Defense Department recently chose to incinerate its unused  
13 stockpiles of firefighting foam.

14 3. Over the last two years, the Defense Department—through its contracting sub-  
15 agency, the Defense Logistics Agency—approved and awarded three contracts for the large-scale  
16 incineration of PFAS-containing foam. However, the same properties that have made PFAS a  
17 widely-used fire suppressant also make them difficult and dangerous to incinerate. Because of the  
18 strength of their chemical bonds, PFAS do not readily burn and are not destroyed under typical  
19 incineration conditions. Instead, uncombusted PFAS are emitted into the air along with other  
20 hazardous chemicals, contaminating the communities surrounding the incinerators.

21 4. NEPA requires federal agencies to take a “hard look” at the environmental  
22 impacts of their proposed actions before approving them. Yet Defendants conducted no  
23 environmental review before awarding the challenged incineration contracts, despite the Defense  
24 Department’s express concerns about the dangers posed by such incineration and admitted lack  
25 of information about the extent of those impacts.

26 5. Those concerns are shared by Congress, which last December enacted new  
27 restrictions on PFAS incineration in the NDAA, a military spending bill. The NDAA provides  
28

1 that, prior to incinerating any PFAS-containing material, the Defense Department “shall ensure”  
2 that the incineration “is conducted at a temperature range adequate to break down PFAS  
3 chemicals” and attains “the maximum degree of reduction in emission of PFAS, including  
4 elimination of such emissions where achievable.” Pub. L. No. 116-92, § 330, 133 Stat. 1198  
5 (enacted Dec. 20, 2019). Even after the passage of that law, Defendants continued to incinerate  
6 firefighting foam and other PFAS containing-material without specifying the temperatures  
7 needed to destroy PFAS, much less ensuring that all incinerators attain those temperatures.

8           6. Plaintiffs’ members live, work, and play in the communities where Defendants  
9 are sending firefighting foam for incineration. These communities are already overburdened by  
10 pollution, both from those incinerators and from other industrial facilities, which will be made  
11 worse by Defendants’ unstudied and unlawful PFAS incineration. Plaintiffs thus request that this  
12 Court enter an order: (1) declaring Defendants to be in violation of NEPA and the NDAA, (2)  
13 annulling each of the PFAS incineration contracts, and (3) enjoining Defendants’ PFAS  
14 incineration until they have complied with their NEPA and NDAA obligations.

#### 15                   **JURISDICTION, VENUE, AND INTRADISTRICT ASSIGNMENT**

16           7. This action is brought pursuant to NEPA, 42 U.S.C. §§ 4321–4347, the NDAA,  
17 Pub. L. 116-92, § 330, 133 Stat. 1198 (enacted Dec. 20, 2019), and the Administrative Procedure  
18 Act (“APA”), 5 U.S.C. §§ 701–706. This Court has jurisdiction pursuant to 28 U.S.C. § 1331  
19 (federal question).  
20

21           8. An actual controversy exists between the parties within the meaning of 28 U.S.C.  
22 § 2201(a), and this Court may grant declaratory relief, injunctive relief, and other relief pursuant  
23 to 28 U.S.C. §§ 2201–2202 and 5 U.S.C. §§ 705–706.

24           9. Venue is properly vested in this Court under 28 U.S.C. § 1391(e), and assignment  
25 to the San Francisco or Oakland Division is proper under Local Rule 3-2(c) because Plaintiff  
26 Sierra Club is headquartered in Oakland and has members residing in the Northern District of  
27 California.  
28

**PARTIES**

1  
2 10. Plaintiffs are non-profit organizations whose members who live, work, and  
3 recreate in and around the communities where Defendants have authorized the incineration of  
4 firefighting foam and other PFAS-contaminated material. These members are threatened by  
5 emissions from that incineration, including the emission of PFAS chemicals and other hazardous  
6 substances resulting from the incomplete incineration of PFAS.

7 11. Plaintiff SAVE OUR COUNTY is a not-for-profit membership organization  
8 based in East Liverpool, Ohio. Save Our County was founded to oppose the construction and  
9 operation of a hazardous waste incinerator in East Liverpool, Ohio, and it is devoted to the  
10 protection of the East Liverpool community from pollution emitted by that incinerator, which is  
11 one of the authorized locations for PFAS incineration under the challenged contracts (the  
12 “Contracts”). Save Our County has members who live, work, and recreate in and around East  
13 Liverpool and who breathe in or are otherwise exposed to pollutants from the East Liverpool  
14 incinerator.

15 12. Plaintiff COMMUNITY IN-POWER AND DEVELOPMENT ASSOCIATION  
16 INC. is a not-for-profit membership organization based in Port Arthur, Texas. It works to  
17 empower residents in low-income communities in Port Arthur to take action against neighboring  
18 chemical manufacturers, refineries, and incinerator facilities. Community-In Power and  
19 Development Association also advocates for “fence line” communities surrounding polluting  
20 facilities, including a hazardous waste incinerator in Port Arthur that is one of the authorized  
21 locations for PFAS incineration under the Contracts. The organization has members who live,  
22 work, and recreate around that incinerator, and who breathe in or are otherwise exposed to  
23 pollutants from that incinerator.  
24

25 13. Plaintiff UNITED CONGREGATIONS OF METRO EAST is a not-for-profit  
26 membership organization based in Cahokia, Illinois. It represents thirty-four congregations with  
27 approximately 27,000 members in the metropolitan area known as Metro East, an area of Illinois  
28 east of St. Louis, Missouri. United Congregations of Metro East operates an environmental

1 justice campaign aimed at combatting air pollution in Metro East, and it has advocated for  
2 stronger emissions monitoring and pollution controls at a hazardous waste incinerator in Sauget,  
3 Illinois that is one of the authorized locations for PFAS incineration under the Contracts. It has  
4 members who live, work, and recreate around that incinerator, and who breathe in or are  
5 otherwise exposed to pollutants from that incinerator.

6 14. Plaintiff SIERRA CLUB was founded in 1892 and is the nation's oldest  
7 grassroots environmental organization. Sierra Club's headquarters is located in Oakland,  
8 California. Sierra Club is a national non-profit membership organization incorporated in  
9 California with more than 825,000 members in all fifty states and the District of Columbia.  
10 Sierra Club's purpose is to explore, enjoy, and protect the wild places of the earth; to practice  
11 and promote the responsible use of the earth's ecosystems and resources; to educate and enlist  
12 humanity to protect and restore the quality of natural and human environments; and to protect  
13 public health and the environment, including from PFAS contamination.

14 15. Sierra Club brings this action on behalf of itself and its members, many of whom  
15 live, work, and recreate in the community surrounding the incinerators authorized for PFAS  
16 incineration under the challenged contracts (the "Contracts"), and who breathe in or are  
17 otherwise exposed to pollutants from those incinerators. Specific incinerators near which Sierra  
18 Club has members include the Clean Harbors incinerator in El Dorado, Arkansas; the Veolia  
19 incinerator in Arkadelphia, Arkansas; the Ross Incineration Services incinerator in Grafton,  
20 Ohio; the Clean Harbors incinerator in Deer Park, Texas; and the Norlite lightweight aggregate  
21 kiln in Cohoes, New York.

22 16. In addition to the Contracts' harm to their members, under NEPA Plaintiffs have a  
23 right to review and submit comments on an environmental impact statement ("EIS") analyzing  
24 the Contracts' significant adverse effects. DLA's failure to evaluate the Contracts under NEPA  
25 deprived Plaintiffs and their members of that statutorily required information and precluded them  
26 from participating in the Contracts' environmental review.  
27  
28



1 *inter alia*, “provide full and fair discussion of significant environmental impacts” of the proposed  
2 action, as well as “reasonable alternatives which would avoid or minimize adverse impacts or  
3 enhance the quality of the human environment.” 40 C.F.R. §§ 1502.1, 1502.16. An EIS must be  
4 published for public review and comment. *Id.* § 1503.1(a)(4).

5 25. Second, to determine whether a proposed action may result in significant adverse  
6 impacts requiring the preparation of an EIS, an agency may prepare an Environmental  
7 Assessment (“EA”). *Id.* § 1501.4. An EA must “provide sufficient evidence and analysis for  
8 determining whether to prepare an environmental impact statement or a finding of no significant  
9 impact.” *Id.* § 1508.9. EAs must be published for public review on DLA’s website. *See DLA,*  
10 *DLA Regulation 1000.22: Environmental Considerations in Defense Logistics Agency Actions*  
11 *(“DLA NEPA Regulations”)* at 13 (Dec. 2, 2011).

12 26. Finally, if the action falls within a category that the agency has already  
13 determined “do[es] not individually or cumulatively have a significant effect on the human  
14 environment,” the agency may approve the action pursuant to a Categorical Exclusion (“CE”).  
15 40 C.F.R. § 1508.4. In establishing lists of CEs, however, agencies must also “provide for  
16 extraordinary circumstances in which a normally excluded action may have a significant  
17 environmental effect,” in which case the action would not be covered by the CE and would  
18 instead require an EA or an EIS. *Id.*

19 27. DLA’s NEPA procedures are set forth in the DLA NEPA Regulations. Those  
20 regulations, which “establish[] DLA policy and responsibilities for the early integration of  
21 environmental considerations into planning and decision-making,” 76 Fed. Reg. 28,757 (May 18,  
22 2011), list forty-five CEs.

23 28. The DLA NEPA Regulations also state that “to use a [CE],” the agency “must”  
24 establish that “[n]o ‘extraordinary circumstances’ exist.” DLA NEPA Regulations at 18. The  
25 DLA NEPA Regulations identify eight extraordinary circumstances that “preclude the use of a  
26 [CE].” *Id.* They include, as relevant here:  
27  
28

1 a. “Reasonable likelihood of significant effects on public health, safety or the  
2 environment,” *id.*;

3 b. “Effects on the environment which are likely to be highly controversial, uncertain  
4 or involve unique or unknown risks,” *id.*;

5 c. “Reasonable likelihood of violating any federal, state or local law or requirement  
6 imposed for the protection of the environment,” *id.*; and

7 d. “Potential for degradation of already existing poor environmental conditions.” *Id.*  
8 at 19.

9 **The National Defense Authorization Act for Fiscal Year 2020**

10 29. The NDAA authorizes fiscal year 2020 Defense Department funding and sets  
11 forth policies governing the Department’s programs and activities.

12 30. The NDAA contains provisions addressing the risks posed by PFAS chemicals,  
13 which have been widely used and broadly released by the Defense Department. More than 400  
14 active or closed military installations have known or suspected PFAS releases.

15 31. Section 330 of the NDAA regulates the incineration and disposal of firefighting  
16 foam and other PFAS-containing materials. That provision states that “[t]he Secretary of Defense  
17 shall ensure that when materials containing per- and polyfluoroalkyl substances (referred to in  
18 this section as ‘PFAS’) or aqueous film forming foam (referred to in this section as ‘AFFF’) are  
19 disposed ... all incineration is conducted at a temperature range adequate to break down PFAS  
20 chemicals while also ensuring the maximum degree of reduction in emission of PFAS, including  
21 elimination of such emissions where achievable.” NDAA § 330, 133 Stat. at 258–259.

22 32. Section 330 further provides that the Secretary of Defense “shall ensure” that: (1)  
23 “all [PFAS] incineration is conducted in accordance with the requirements of the Clean Air Act  
24 (42 USC 7401 et seq.), including controlling hydrogen fluoride,” (2) “any materials containing  
25 PFAS that are designated for disposal are stored in accordance with” U.S. Environmental  
26 Protection Agency hazardous waste storage regulations, and (3) any incineration of materials  
27  
28



1 containing PFAS shall be “conducted at a facility that has been permitted to receive waste  
2 regulated under subtitle C of the Solid Waste Disposal Act.” *Id.*

3 **The Administrative Procedure Act**

4 33. The APA governs judicial review of an agency’s compliance with NEPA and the  
5 foregoing provisions of the NDAA.

6 34. Under the APA, a reviewing court shall “hold unlawful and set aside agency  
7 action, findings, and conclusions found to be... arbitrary, capricious, an abuse of discretion, or  
8 otherwise not in accordance with law,” “in excess of statutory jurisdiction [or] authority,” or  
9 “without observance of procedure required by law.” 5 U.S.C. § 706(2).

10 35. The APA authorizes the award of declaratory and injunctive relief. *Id.* § 703.

11 **STATEMENT OF FACTS**

12 **I. PFAS Chemicals Present “One of the Most Seminal Public Health Challenges for  
13 the Next Decades”**

14 36. PFAS are a class of approximately 6,000 chemicals, all of which contain fluorine  
15 atoms bound to a carbon chain.

17 37. The carbon-fluorine connection is one of the strongest chemical bonds ever  
18 created, making PFAS chemicals extremely persistent in the environment and difficult to break  
19 down or remediate.

20 38. PFAS chemicals do not occur naturally. They were invented by E. I. du Pont de  
21 Nemours and Company (“DuPont”) and the 3M Company (“3M”) in the 1930s. Less than a  
22 century later, PFAS chemicals have spread across the globe and contaminated the blood of  
23 approximately ninety-nine percent of Americans. PFAS chemicals have also been detected in  
24 breast milk and umbilical cord blood, indicating exposures to newborns and fetuses who are  
25 particularly vulnerable to chemical impacts.

26 39. The two most widely studied PFAS chemicals are perfluorooctane sulfonate  
27 (“PFOS”) and perfluorooctanoic acid (“PFOA”), both of which contain eight carbon atoms.  
28 PFOA and PFOS were among the first PFAS chemicals invented, and they are widely used in

1 Teflon cookware, GORE-TEX fabrics and clothing, Scotchgard sprays, and a range of other  
2 products, including, as relevant here, firefighting foam commonly known as “Aqueous Film  
3 Forming Foam” or “AFFF”.

4 40. PFOS and PFOA have shared properties that make them: (i) mobile, meaning they  
5 spread broadly once released, (ii) persistent, meaning they break down very slowly, (iii) bio-  
6 accumulative, meaning that even low level exposures build up over time in humans and animals,  
7 and (iv) toxic, meaning they pose serious health risks. As a result of these properties, PFOA and  
8 PFOS pose significant threats to human health and the environment.

9 41. Human health effects associated with PFOA exposure include kidney and  
10 testicular cancer, thyroid disease, high cholesterol, ulcerative colitis, liver damage, and  
11 pregnancy-induced hypertension (also known as preeclampsia).

12 42. Human health effects associated with PFOS exposure include immune system  
13 effects, changes in liver enzymes and thyroid hormones, low birth weight, high uric acid, and  
14 high cholesterol.

15 43. Numerous federal and state agencies have acknowledged the risks associated with  
17 PFAS chemicals. The Center for Disease Control and Prevention (“CDC”) reports that PFAS  
18 exposures “can be linked to higher rates of certain cancers, higher cholesterol levels, suppressed  
19 immune systems, fertility issues in women, and weakened antibody responses to vaccinations  
20 among children.” Agency for Toxic Substances and Disease Registry, *Annual Report:  
21 ATSDR Leads Charge to Reduce PFAS Exposure* (2017), <https://www.atsdr.cdc.gov/2017dchian>  
22 [nualreport/assets/pdf/ATSDR\\_Annual\\_Report\\_PFAS\\_Success\\_Story-508.pdf](https://www.atsdr.cdc.gov/2017dchianualreport/assets/pdf/ATSDR_Annual_Report_PFAS_Success_Story-508.pdf).

23 44. Similarly, the U.S. Environmental Protection Agency (“EPA”) found that PFAS  
24 can result in “developmental effects to fetuses during pregnancy and infants (e.g., low birth  
25 weight, altered puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g.,  
26 tissue damage), immune effects (e.g., changes in antibody production and immunity), thyroid  
27 effects related to developmental outcomes, and other effects (e.g., cholesterol changes).” EPA,  
28 *Per- and Polyfluoroalkyl Substances (PFAS) Action Plan* at 13 (Feb. 2019), <https://www.epa.gov>

1 /sites/production/files/2019-02/documents/pfas\_action\_plan\_021319\_508compliant\_1.pdf. Last  
2 year, EPA released a PFAS Action Plan to “reduce the risks associated with PFAS in the  
3 environment.” *Id.* at 8.

4 45. These harms occur at very low exposure levels. The CDC’s Agency for Toxic  
5 Substances and Disease Registry has identified minimal risk levels of approximately 21 parts-  
6 per-trillion and 14 parts-per-trillion for PFOA and PFOS, respectively, in drinking water. For  
7 purpose of comparison, one part-per-trillion is approximately equal to a single grain of sand in an  
8 Olympic-sized swimming pool.

9 46. Over the last decade, 3M, DuPont, and several other chemicals manufacturers, at  
10 the urging of EPA, have phased out their production of PFOA and PFOS. As they have done so,  
11 however, they frequently replaced those substances with other PFAS chemicals, many of which  
12 present similar health hazards.

13 47. The Director of CDC’s Center for Environmental Health has described the  
14 management of PFAS chemicals as “one of the most seminal public health challenges for the  
15 next decades.” Pat Rizzuto, David Schultz, & Sylvia Carignan, *CDC Sounds Alarm on Chemical*  
16 *Contamination in Drinking Water*, Bloomberg Environment (Oct. 17, 2017), [https://news.bloom-](https://news.bloombergenvironment.com/environment-and-energy/cdc-sounds-alarm-on-chemical-contamination-in-drinking-water)  
17 [bergenvironment.com/environment-and-energy/cdc-sounds-alarm-on-chemical-contamination-](https://news.bloombergenvironment.com/environment-and-energy/cdc-sounds-alarm-on-chemical-contamination-in-drinking-water)  
18 [in-drinking-water](https://news.bloombergenvironment.com/environment-and-energy/cdc-sounds-alarm-on-chemical-contamination-in-drinking-water).

## 21 **II. The Defense Department Has Long Known of the Risks Associated with AFFF**

22 48. One of the primary uses of PFAS chemicals is in AFFF, which is used to fight  
23 fires caused by the ignition of fuel or other flammable liquids. When AFFF concentrate is mixed  
24 with water, it creates a foam that can be sprayed over open flames, leaving a film on the surface  
25 that blocks the fire’s supply of oxygen and prevents re-ignition.

26 49. The Defense Department accounts for approximately seventy-five percent of all  
27 AFFF used in the United States, with municipal airports, refineries, and other industrial facilities  
28

1 responsible for the remainder. AFFF has been widely used at military installations for  
2 firefighting training exercises and during emergency fire situations.

3 50. The Defense Department was instrumental in the initial development of AFFF,  
4 which was invented by the U.S. Naval Research Laboratory and 3M in the 1960s.

5 51. The initial formulations of AFFF contained PFOA and/or PFOS.

6 52. The United States Navy received a patent for AFFF containing “one or more  
7 fluorocarbon compounds,” *i.e.*, PFAS chemicals, in 1966. Three years later, the Navy issued  
8 rules requiring the use of PFAS-based AFFF for all firefighting activities. Those requirements,  
9 which were subsequently adopted by other branches of the military, remain in effect today.

10 53. It did not take long for the Defense Department to discover the environmental and  
11 public health risks associated with AFFF. In the mid-1970s, the Naval Research Laboratory  
12 began researching alternate firefighting products, explaining that while “present formulations [of  
13 AFFF] with respect to fire suppression are highly effective ... improvements are desired in the  
14 environmental area.” Memorandum from Commanding Officer, Naval Research Laboratory to  
15 Commander, Aeronautical Systems Division, Wright-Patterson Air Force Base, Re: R&D Final  
17 Report on DOD-AGFSRS-76-10: Improved Environmental Impact Properties for AFFF  
18 Materials at 8 (Oct. 21, 1976).

19 54. A 1979 study by the Air Force’s Aerospace Medical Research Laboratory found  
20 that PFAS damaged the “thymus, bone marrow, stomach, mesentery, liver, and testes in the male  
21 rats.” Additional Air Force studies in the 1980s confirmed reproductive damage and impaired  
22 cell growth in animals exposed to PFAS chemicals. *See* Aerospace Medical Research  
23 Laboratory, *Teratologic Evaluation of a Model Perfluorinated Acid*, NDFDA at 1 (Jan. 1981).

24 55. By 1991, the U.S. Army Corps of Engineers recommended that AFFF “be  
25 replaced with nonhazardous substitutes” at the Fort Carson military base. U.S. Army Corps of  
26 Engineers, *Hazardous Waste Minimization Assessment: Fort Carson, CO* (Report No. N-91/02)  
27 at 141 (Jan. 1991).

28

1           56.     In 2000, 3M announced that it would voluntarily phase out the use of PFOS in  
2 AFFF. However, 3M and other companies continue to manufacture AFFF from other PFAS.

3           57.     In 2011, the Defense Department issued a Chemical & Material Emerging Risk  
4 Alert for AFFF, warning that PFOA and PFOS “are found widespread at low levels in humans  
5 and the environment, bioaccumulate in the food chain, resist degradation, show evidence of  
6 toxicity in laboratory studies, and are the subject of increasing regulation worldwide.”

7           58.     After AFFF is used, the PFAS from the foam can leach into soil and groundwater  
8 or flow into surface water, resulting in the contamination of military facilities and surrounding  
9 communities. More than 200 military facilities have unsafe PFAS levels in drinking water or  
10 groundwater, and many others have yet to be tested.

11           59.     In 2016, the Defense Department issued a policy requiring PFOS-based AFFF to  
12 be removed from ships and local supplies and stored in drums and cans. However, the  
13 Department continues to use AFFF containing other PFAS chemicals.

14           60.     Following the issuance of that policy, military installations were left with millions  
15 of gallons of stockpiled “legacy” AFFF containing PFOA and PFOS. Without any review of the  
16 environmental consequences, the Defense Department decided to incinerate it.  
17

18  
19 **III.    The Defense Department Acknowledges That AFFF Incineration Presents Serious**  
20 **Health Risks**

21           61.     The same properties that make AFFF an effective fire suppressant make it a  
22 dangerous substance to incinerate. As stated by EPA, “PFAS compounds are difficult to break  
23 down [via incineration] due to ... the chemical stability of fluorinated compounds.” EPA,  
24 *Technical Brief: Per- and Polyfluoroalkyl Substances (PFAS): Incineration to Manage PFAS*  
25 *Waste Streams* (“EPA Technical Brief”) (Aug. 2019), [https://www.epa.gov/sites/production/files](https://www.epa.gov/sites/production/files/2019-09/documents/technical_brief_pfas_incineration_ioaa_approved_final_july_2019.pdf)  
26 [/2019-09/documents/technical\\_brief\\_pfas\\_incineration\\_ioaa\\_approved\\_final\\_july\\_2019.pdf](https://www.epa.gov/sites/production/files/2019-09/documents/technical_brief_pfas_incineration_ioaa_approved_final_july_2019.pdf).

27           62.     Because PFAS do not break down under typical incineration conditions and  
28 temperatures, the fact that an incinerator has been permitted to dispose of other hazardous wastes

1 does not mean that it is capable of destroying PFAS. PFAS that do not break down are emitted  
2 into the air by the incinerator, along with other hazardous byproducts of incomplete combustion.

3 *Id.*

4 63. When asked about AFFF incineration at a March 2019 Senate hearing, EPA's  
5 Assistant Administrator for Water expressed concerns about the potential air emissions of PFAS  
6 and questioned whether, instead of eliminating PFAS, incineration was "just transferring the  
7 media [with] which we have a problem." *Examining the Federal Response to the Risks*  
8 *Associated with Per- and Polyfluoroalkyl Substances (PFAS): Hearing Before the S. Comm. on*  
9 *Env't & Pub. Works*, 116th Cong., 53 (Mar. 28, 2019), [https://www.epw.senate.gov/public/\\_cache](https://www.epw.senate.gov/public/_cache/files/9/0/90f8dc4c-e7e8-4699-83f5-051b557f9560/A9509915AA3E829D3EC9C2DA5B0754F4.spw-032819.pdf)  
10 [e/files/9/0/90f8dc4c-e7e8-4699-83f5-051b557f9560/A9509915AA3E829D3EC9C2DA5B075](https://www.epw.senate.gov/public/_cache/files/9/0/90f8dc4c-e7e8-4699-83f5-051b557f9560/A9509915AA3E829D3EC9C2DA5B0754F4.spw-032819.pdf)  
11 [4F4.spw-032819.pdf](https://www.epw.senate.gov/public/_cache/files/9/0/90f8dc4c-e7e8-4699-83f5-051b557f9560/A9509915AA3E829D3EC9C2DA5B0754F4.spw-032819.pdf).

12 64. The Defense Department has been aware of the risks associated with the  
13 incineration of PFAS for years. In April 2017, the Department solicited proposals for "novel"  
14 AFFF disposal technologies because "no satisfactory disposal method has been identified."  
15 Department of Defense, *AFFF Disposal Solicitation*, Topic No. AF17B- T001 (Apr. 21, 2017), [h](https://www.sbir.gov/sbirsearch/detail/1254657)  
16 [tps://www.sbir.gov/sbirsearch/detail/1254657](https://www.sbir.gov/sbirsearch/detail/1254657). That solicitation acknowledged that AFFF  
17 incineration faced "several significant challenges," including the absence of information about  
18 "products of pyrolysis or combustion, temperatures at which these will occur, or the extent of  
19 [PFAS] destruction that will be realized." *Id.*

20 65. The Defense Department also warned that "many likely byproducts" of PFAS  
21 incineration "will also be environmentally unsatisfactory ... or toxic, e.g., [hydrogen fluoride],  
22 fluoroacetates, or perfluoroisobutylene." *Id.*

23 66. These "likely byproducts" present serious health risks to fence-line and downwind  
24 communities. Hydrogen fluoride can cause severe respiratory damage and skin burns following  
25 inhalation or dermal contact. Fluoroacetates are poisons that are often used as rodenticides.  
26 Perfluoroisobutylene is a deadly chemical that has been used as a chemical warfare agent.  
27  
28

1           67.     Reiterating the need for additional research into PFAS disposal, the Defense  
2 Department’s environmental science and technology program recently issued a “statement of  
3 need” for “improved understanding of thermal destruction technologies for materials laden with  
4 per- and polyfluoroalkyl substances.” Strategic Environmental Research and Development  
5 Program (SERDP), *FY 2021 Statement of Need: Improved Understanding of Thermal  
6 Destruction Technologies for Materials Laden with Per- and Polyfluoroalkyl Substances* (Oct.  
7 24, 2019), [https://www.serdp-estcp.org/index.php//content/download/50016/492599/file/ERSON-  
8 21-C1%20Thermal%20PFAS.pdf](https://www.serdp-estcp.org/index.php//content/download/50016/492599/file/ERSON-21-C1%20Thermal%20PFAS.pdf).

9           68.     EPA has echoed the Defense Department’s concerns about PFAS incineration.  
10 EPA is currently soliciting research into PFAS disposal technologies, noting that PFAS are  
11 “extremely difficult to combust” and that PFAS incineration “may promote the formation of  
12 complex products of incomplete combustion that may themselves be toxic and/or contribute to  
13 ozone depletion as well as other potential physical effects to the atmospheric environment.”  
14 EPA, *Per- and Polyfluoroalkyl Substances (PFAS) Air Emissions: Characterization, Mitigation  
15 and Disposal/Destruction of PFAS Residuals* (Apr. 2019), [https://cfpub.epa.gov/ordpd/PostDoc  
16 Position.cfm?pos\\_id=1115](https://cfpub.epa.gov/ordpd/PostDocPosition.cfm?pos_id=1115).

17           69.     EPA has also acknowledged the harms associated with incineration when  
18 approving new PFAS chemicals under the Toxic Substances Control Act. In multiple rules and  
19 orders restricting the manufacturing, use, and disposal of new PFAS chemicals, EPA found that  
20 the chemicals presented unreasonable risk in part due to “concern[s] that ... perfluorinated  
21 products may be released to the environment from incomplete incineration.” *See, e.g.*,  
22 *Significant New Use Rules on Certain Chemical Substances*, 77 Fed. Reg. 48,858 (Aug. 15,  
23 2012).

24           70.     Another problem posed by PFAS incineration is the inability to adequately  
25 monitor the PFAS emissions from incinerators. According to EPA, “[e]mission studies” of PFAS  
26 incineration “have been incomplete due to lack of necessary measurement methods ...” EPA  
27 Technical Brief at 2.  
28

1           71.     In June 2019, an EPA official presented on “EPA PFAS Air Emission  
2 Measurements: Activities and Research.” His presentation noted that “[a]ccepted source and  
3 ambient air methods for PFAS do NOT exist” and “[c]urrent emissions tests often target only a  
4 small number of PFAS compounds for analysis while significantly more may be present.”  
5 Presentation by Jeff Ryan, EPA Office of Research and Development, EPA Region 4 Spring  
6 Grants/Planning Meeting at Slide 13 (May 23, 2019), [https://cfpub.epa.gov/si/si\\_public\\_file\\_down  
7 load.cfm?p\\_download\\_id=538634&Lab=NRMRL](https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=538634&Lab=NRMRL).

8           72.     Without reliable measurement methods, there is no way to verify that incinerators  
9 have successfully destroyed or captured the PFAS chemicals, as opposed to releasing them into  
10 surrounding communities. *Id.*

11  
12 **IV.     DLA Entered into Three Contracts for the Incineration of Millions of Gallons of**  
13 **PFAS-Based AFFF**

14           73.     Despite knowing the dangers associated with incinerating PFAS, on or around  
15 July 6, 2018 DLA issued a solicitation for three regional contracts governing the removal,  
17 transportation, and incineration of unused AFFF from the military and Department of Homeland  
18 Security facilities across the country. Each Contract was to last for 30 months, with an option for  
19 a 30-month extension, for a total contract life of five years.

20  
21                   *a.   The Eastern Regional Contract*

22           74.     On or around November 13, 2018, DLA awarded the contract for the removal,  
23 transportation, and incineration of AFFF from military installations in the Eastern Region to  
24 Tradebe Treatment and Recycling, LLC (“Tradebe”). The Eastern Region covers Alabama,  
25 Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland,  
26 Massachusetts, Michigan, Mississippi, New Hampshire, New Jersey, New York, North Carolina,  
27 Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West  
28



1 Virginia, and Wisconsin. A copy of the Eastern Regional Contract is attached hereto as **Exhibit**  
2 **A.**

3 75. Through the Eastern Regional Contract, DLA contracted for the incineration of  
4 approximately 843,000 gallons of stockpiled AFFF concentrate and rinsate.

5 76. Approximately one month after the award of that contract, a Tradebe affiliate  
6 within the region—Tradebe Treatment and Recycling Northeast, LLC—entered a consent decree  
7 with the United States Environmental Protection Agency to resolve a series of violations of the  
8 Clean Air Act and Resources Conservation Recovery Act, including “failure to report hazardous  
9 waste releases,” failure to “minimize threats from hazardous waste releases,” “failure to comply  
10 with ... tank and emission control standards,” and “failure to conduct adequate inspections for  
11 malfunctions or deteriorating conditions.”

12 77. Tradebe owns Norlite, LLC, which owns and operate a lightweight aggregate kiln  
13 in Cohoes, New York where the Department of Defense has sent PFAS-containing firefighting  
14 foam for incineration. The Norlite kiln also has a long history of environmental violations,  
15 resulting in fines and enforcement actions by the New York State Department of Environmental  
16 Conservation. The kiln is also located next to a public housing complex, whose residents are  
17 exposed to emissions from the kiln. However, Tradebe continued to send PFAS to that kiln under  
18 the Eastern Regional Contract.  
19

20  
21 *b. The Mid-America Regional Contract*

22 78. Also on or around November 13, 2018, DLA awarded the contract for the  
23 removal, transportation, and incineration of AFFF from military installations in the Mid-America  
24 Region to Tradebe Treatment and Recycling, LLC. The Mid-America Region covers Arkansas,  
25 Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South  
26 Dakota, and Texas. A copy of the Mid-America Regional Contract is attached hereto as **Exhibit**

27 **B.**  
28

1           79. Through the Mid-America Regional Contract, DLA contracted for the  
2 incineration of more than 310,000 gallons of stockpiled AFFF concentrate and rinsate.

3  
4                           *c. The Western Regional Contract*

5           80. On or around May 29, 2019, DLA awarded and entered a contract with Heritage  
6 Environmental Services (“Heritage”) for the removal, transportation, and incineration of AFFF  
7 from the Western Region. The Western Region covers Arizona, California, Colorado, Idaho,  
8 Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. A copy of the  
9 Western Regional Contract is attached hereto as **Exhibit C**.

10           81. Through the Western Regional Contract, DLA contracted for the incineration of  
11 more than 888,000 gallons of stockpiled AFFF concentrate and rinsate.

12           82. Heritage and its affiliates operate incinerators with a long history of  
13 environmental violations. In October 2018, the Environmental Protection Agency entered a  
14 settlement with Heritage Thermal Services Inc., a Heritage subsidiary, arising from several years  
15 of Clean Air Act violations at an East Liverpool, Ohio hazardous waste incinerator that is one of  
17 the facilities authorized to incinerate AFFF under the Contracts.

18           83. Critically, the Heritage incinerator failed to maintain minimum temperatures  
19 specified in its Clean Air Act permit “on numerous days,” according to EPA. The maintenance  
20 of adequate temperatures is particularly critical for the incineration of AFFF, since PFAS  
21 chemicals do not break down even at normal incineration temperatures, much less at  
22 temperatures below permitted levels.

23           84. In November 2018, the Vermont Department of Environmental Conservation  
24 cancelled plans to send PFAS-containing AFFF to Heritage’s East Liverpool incinerator, citing  
25 concerns about the facility’s environmental violations and poor operating conditions.

26           85. Less than a year later, EPA awarded Heritage the Western Region Contract.

27           86. On December 18, 2019, an EPA official wrote to the East Liverpool City Council  
28 to express “concern over the incineration of PFAS waste” at Heritage’s East Liverpool

1 incinerator and informed the Council that EPA was “evaluating whether the incineration of  
2 PFAS is a violation of the Facility’s permit.”

3 87. All of the Contracts contain largely identical terms. They require DLA to submit a  
4 Task Order to Tradebe or Heritage when it has a shipment of AFFF that is ready for incineration.

5 88. The Contracts also all state that “[a]ll wastes turned in under this contract are  
6 believed by the Government to contain or potentially contain unknown concentrations of per- or  
7 polyfluoroalkyl substances (PFASs) such as perfluorooctane sulfonate (PFOS) and/or  
8 perfluorooctanoic acid (PFOA).”

9 89. The Contracts further state that all AFFF-related wastes will be “thermally  
10 destroyed at a fully permitted [Resource Conservation and Recovery Act, or RCRA] incineration  
11 facility on the DLA Disposition Services [Qualified Facilities List].”

12 90. On information and belief, there are at least eight RCRA incinerators on the  
13 DLA’s Qualified Facility List where the AFFF may be sent under the Contracts. Tradebe and  
14 Heritage can send AFFF to any of these incinerators.

15 91. Many of these incinerators have a long history of Clean Air Act and RCRA  
16 violations, and are located in communities that suffer disproportionate environmental burdens.

17 For instance:

18 a. The Veolia ES Technical Solutions incinerator in Sauget, Illinois has had at least  
19 twelve consecutive quarters with “high priority” Clean Air Act violations. Sixty-one percent of  
20 the residents living within a three mile radius of the incinerator are African American, and forty-  
21 four percent have a household income of \$25,000 or less, according to 2010 Census data. The  
22 respiratory hazard index for the surrounding area, measuring the likelihood of harm from  
23 inhalation of air pollution, and the air toxics cancer risk, measuring the likelihood of developing  
24 cancer from the inhalation of air toxics, is in the 79th percentile for the nation and 93rd  
25 percentile for the state.  
26

27 b. The Clean Harbors incinerator in El Dorado, Arkansas is classified by EPA as a  
28 “significant non-complier” with RCRA, and has had RCRA or Clean Air Act violations in nine

1 of the last twelve quarters, resulting in multiple enforcement actions and compliance orders.  
2 Sixty-one percent of the residents living within a three mile radius of the incinerator are African  
3 American or Latino, and approximately fifty percent have a household income of \$25,000 or  
4 less, according to 2010 Census data. The respiratory hazard index and air toxics cancer risk for  
5 the surrounding area is in the 75th percentile for the nation and the 82nd percentile for the state.

6 92. The Heritage-WTI incinerator in East Liverpool, Ohio has violated its Clean Air  
7 Act permit in eleven of the previous twelve quarters and has violated its RCRA permit in three of  
8 the previous twelve quarters. The incinerator has repeatedly failed to meet its operational limits  
9 for temperature and pressure, and has released unsafe levels of dioxins, furans, and other  
10 hazardous substances into the surrounding community. The incinerator is less than 400 feet from  
11 the nearest home, in a neighborhood where the majority of the African Americans in East  
12 Liverpool reside, and approximately 1,100 feet from the nearest school. The respiratory hazard  
13 index and air toxics cancer risk for the surrounding area is in the 61st percentile for the state. In a  
14 letter to Plaintiff Save Our County, the Ohio Department of Health wrote that East Liverpool has  
15 a “strikingly high incidence rate of overall cancer, but also for bladder, colon & rectum,  
16 esophagus, lung & bronchus, multiple myeloma, and prostate cancer when compared to Ohio and  
17 the U.S.” *See* Letter from Ohio Dep’t of Health to Alonzo Spencer, Save Our County, Re:  
18 Cancer Among Residents of East Liverpool (Aug. 19, 2010).

19  
20 c. The Veolia incinerator in Port Arthur, Texas is located in a minority community  
21 that is already overburdened by pollution from chemical plants, refineries, and other industrial  
22 facilities. More than seventy percent of Port Arthur residents are African American or Latino,  
23 and the cancer risk among African Americans in Jefferson County—where Port Arthur is  
24 located—is fifteen percent higher than the state-wide average. The mortality rate from cancer  
25 among African Americans in Jefferson County is forty percent above the state-wide average, and  
26 residents of Port Arthur are four times more likely than people 100 miles upwind to report  
27 suffering from heart and respiratory conditions; nervous system and skin disorders; headaches  
28 and muscle aches; and ear, nose, and throat ailments.

1           93.     The Contracts do not impose any minimum temperature requirements for AFFF  
2 incineration, despite the fact that PFAS are resistant to combustion and are not fully destroyed at  
3 the temperatures that are sufficient to destroy other hazardous waste.

4           94.     The Contracts also do not require the authorized AFFF incinerators to  
5 demonstrate that they have successfully incinerated or can successfully incinerate AFFF.

6  
7 **V.     DLA Failed to Evaluate the Environmental Impacts of the Contracts**

8           95.     Despite the acknowledged risks and unanswered questions about the effects of  
9 AFFF incineration, DLA conducted no review of the Contracts' environmental impacts under  
10 NEPA.

11           96.     DLA did not prepare an EIS to evaluate the Contracts' significant adverse  
12 environmental impacts.

13           97.     DLA did not prepare an EA to evaluate whether the Contracts may present  
14 significant adverse environmental impacts warranting an EIS.

15           98.     On May 17, 2019, Petitioner Sierra Club and Petitioners' counsel Earthjustice  
17 submitted a Freedom of Information Act ("FOIA") request seeking "[a]ny records documenting  
18 the review of the [Tradebe Contracts] under the National Environmental Policy Act, including,  
19 but not limited to, documentation of a categorical exclusion, Environmental Assessment, or  
20 Environmental Impact Statement and any supporting studies or analyses."

21           99.     On July 9, 2019, DLA responded, "we have conducted a search on your behalf.  
22 Our agency's subject matter expert's searches found no records responsive to your request."

23           100.    Not only did DLA conduct no NEPA review, but it admits that it has no records  
24 concerning the environmental impacts of the Contracts or the consequences of AFFF  
25 incineration. In response to a separate FOIA request from Sierra Club and Earthjustice seeking  
26 "[a]ny studies or other records concerning the environmental impact of incineration of AFFF and  
27 AFFF-related wastes," DLA responded, "[t]he Defense Logistics Agency (DLA) has determined  
28 it possesses no records responsive to this request."

1 101. Incineration of AFFF is currently ongoing under the Contracts.

2 **FIRST CLAIM FOR RELIEF**

3 **Violation of the National Environmental Policy Act**

4 **(Against DLA, the Defense Department, and Sec. Esper and Director Williams in their**  
5 **official capacities)**

6 102. Plaintiffs incorporate all preceding paragraphs by reference.

7 103. Each of the Contracts for the large-scale incineration of toxic AFFF is a major  
8 federal action subject to NEPA.

9 104. NEPA requires federal agencies to prepare an EIS for all “major Federal actions  
10 significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C).

11 105. Defendants did not prepare an EIS for the Contracts.

12 106. If there are questions about whether a proposed action may have significant  
13 environmental effects, an agency may prepare an EA to determine whether an EIS is needed.  
14 40 C.F.R. § 1508.09.

15 107. Defendants did not prepare an EA for the Contracts.

16 108. By failing to prepare an EIS or an EA, Defendants failed to take a “hard look at  
17 the environmental consequences of their proposed actions,” as required by NEPA. *Tillamook*  
18 *Cty.*, 288 F.3d at 1143.

19 109. An agency may avoid the preparation of an EA or an EIS only if an action has  
20 been categorically excluded from NEPA review.

21 110. Defendants have not identified any categorical exclusion applicable to the  
22 Contracts.

23 111. Moreover, even in circumstances where a categorical exclusion would otherwise  
24 apply, NEPA review of a proposed action is still required if the action involves “extraordinary  
25 circumstances.” 40 C.F.R. § 1508.4.

26 112. If a proposed action might involve extraordinary circumstances, an agency must  
27 document its consideration of such circumstances and state the basis for its decision.  
28

1 113. DLA has not documented its consideration of the extraordinary circumstances  
2 presented by the Contracts.

3 114. DLA's NEPA Regulations identify eight extraordinary circumstances, any one of  
4 which precludes the use of a categorical exclusion. At least four of those extraordinary  
5 circumstances apply here.

6 115. First, the Contracts present a "[r]easonable likelihood of significant effects on  
7 public health, safety or the environment." DLA NEPA Regulations at 18. As acknowledged by  
8 the Defense Department, AFFF incineration is "likely" to result in the emission of  
9 "environmentally unsatisfactory ... or toxic" chemicals, including PFAS. *See supra* ¶ 65. Once  
10 emitted, PFAS chemicals can remain in the environment for hundreds or thousands of years, bio-  
11 accumulate in people and other living organisms, and cause severe health effects even at very  
12 low exposure levels.

13 116. Second, even if the Contracts were not reasonably likely to result in significant  
14 health effects, they would still have "[e]ffects on the environment which are likely to be highly  
15 controversial, uncertain or involve unique or unknown risks." DLA NEPA Regulations at 18.  
16 The Defense Department has acknowledged that "there is no precedent to predict products of  
17 [AFFF] combustion," and EPA recently warned that "[e]mission studies" of PFAS incineration  
18 "have been incomplete due to lack of necessary measurement methods." AFFF Disposal  
19 Solicitation (2017); EPA Technical Brief at 2. As EPA concluded in August 2019, following the  
20 award of all three Contracts, "[t]he effectiveness of incineration to destroy PFAS compounds and  
21 the tendency for formation of fluorinated or mixed halogenated organic byproducts is not well  
22 understood." EPA Technical Brief at 2.

23 117. Third, the Contracts present a "[r]easonable likelihood of violating any federal ...  
24 requirement imposed for the protection of the environment." DLA NEPA Regulations at 18.  
25 Under the NDAA, DLA may not incinerate AFFF unless the Defense Department has ensured  
26 that the temperature conditions at the incinerator are sufficient to break down PFAS and to attain  
27 the maximum achievable reduction in PFAS emissions. The Contracts do not impose any  
28

1 temperature requirements or minimum standards for PFAS emissions reduction, and thus are  
2 likely to result in violations of those statutory requirements.

3 118. Finally, the Contracts present the potential for “degradation of already existing  
4 poor environmental conditions.” *Id.* at 19. The communities surrounding the incinerators  
5 authorized by the contracts already suffer from elevated rates of cancer, respiratory disease, and  
6 other harms caused by toxic air pollution. PFOA and PFOS are associated with many of these  
7 same health effects. The incineration of AFFF thus threatens to exacerbate the already dangerous  
8 levels of air pollution where Petitioners’ members live, work, and play.

9 119. DLA did not consider any of these extraordinary circumstances before it approved  
10 and awarded the Contracts.

11 120. On information and belief, DLA applied a categorical exclusion to the Contracts  
12 notwithstanding the existence of extraordinary circumstances.

13 121. DLA’s failure to consider and account for extraordinary circumstances violated  
14 NEPA, *id.* at 18, and the APA’s requirement for rational and lawful decision-making.  
15 5 U.S.C. § 706(2).

## 17 **SECOND CLAIM FOR RELIEF**

### 18 **Violation of the National Defense Authorization Act**

#### 19 **(Against DLA, the Defense Department, and Sec. Esper and Director Williams in their** 20 **official capacities)**

21 122. Plaintiffs incorporate all preceding paragraphs by reference.

22 123. In December 2019, Congress enacted new restrictions on the Defense  
23 Department’s incineration of AFFF and other PFAS-containing material through the NDAA.

24 124. The NDAA states that “[t]he Secretary of Defense shall ensure that when  
25 materials containing [PFAS] or [AFFF] are disposed—(1) all incineration is conducted at a  
26 temperature range adequate to break down PFAS chemicals while also ensuring the maximum  
27 degree of reduction in emission of PFAS, including elimination of such emissions where  
28 achievable.” NDAA § 330, 133 Stat. at 258–259.





