

GRANTING PRESUMPTION OF SERVICE CONNECTION FOR PFAS EXPOSURE IN VETERANS

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Veterans often face physical and mental disabilities as a result of their service.¹ Because of this, the U.S. Department of Veterans Affairs (VA) provides service-connected disability coverage for veteran health care. Under this coverage, a veteran can have a certain percentage of their health care costs associated with their disability covered by the VA.² Veterans are granted a certain rate of disability, which determines how much money the VA will send them each month.³

Often, it is the veteran's burden to prove that their disability exists and is a result of their service.⁴ Therefore, it is difficult to succeed on some of these claims. Specifically, with claims relating to environmental exposure, it is often difficult to prove the disability is a result of service and not something else.

However, there is another way to get service-connected disability coverage as a veteran: presumption of service connection. Under presumption of service connection, a veteran no longer has the burden of proof in demonstrating their disability was the result of their service.⁵ The VA instead presumes, based on a veteran's diagnosis and time and place of service, that the disability was caused by their military service.⁶ This not only makes the process of getting service connection easier, but validates that certain conditions are almost surely from their service and therefore deserve to be covered.⁷

VA benefits are important because they cover things from medical care costs to financial support for veterans and their families.⁸ Sometimes, veterans feel their condition is the result of their service, but struggle to prove it to the VA. Therefore, it is not uncommon for veterans to petition the VA to grant presumption of service con-

nection for certain conditions that are difficult to prove a causal connection for otherwise. This happened historically with Agent Orange, a chemical weapon used during the Vietnam War that causes severe health issues, and more recently with burn pit exposure in the Gulf War, which exposed servicemembers to toxins and other heavy metals.⁹ Under the Sergeant First Class Heath Robinson Honoring Our Promise to Address Comprehensive Toxics (PACT) Act passed in 2022, these environmental toxins, as well as others, are required to be presumed to have a service connection by the VA.¹⁰

Exposure to per- and polyfluoroalkyl substances (commonly referred to as “forever chemicals,” or PFAS generally) is emerging as a disability that veterans want covered by the VA. PFAS are a particularly dangerous chemical group because they are water-resistant and are nearly impossible to break down.¹¹ Therefore, they contaminate water supplies and accumulate in the bloodstream.¹² PFAS are present in clothing, carpets, furniture, adhesives, food packaging, nonstick cookware, and firefighting foam.¹³

PFAS can cause developmental defects in fetuses and infants; damage the thyroid, liver, and kidneys; harm certain hormones and the immune system; and cause an increased risk of cancer.¹⁴ They have been linked to increased risk of kidney and testicular cancer, changes in liver enzymes, higher cholesterol, low birthweight, pregnancy-related hypertension and preeclampsia, lower antibody response, and more.¹⁵ Because of these dangers, the U.S. Environmental Protection Agency (EPA) requires public water supplies to be monitored for PFAS levels.¹⁶

Veterans are exposed to PFAS primarily through aqueous film-forming foam (AFFF) used in firefighting activi-

1. Maria Olenick et al., *US Veterans and Their Unique Issues: Enhancing Health Care Professional Awareness*, 6 *ADVANCES IN MED. EDUC. & PRAC.* 635 (2015), <https://pmc.ncbi.nlm.nih.gov/articles/PMC4671760/>.
2. Robert V. Chisholm, *Agent Orange, Burn Pits, and Presumptive Service Connection for Disability Compensation*, 35 *GPSOLO* 42, 43 (2018).
3. VA, *Current Veterans Disability Compensation Rates*, <https://www.va.gov/disability/compensation-rates/veteran-rates/> (last updated Dec. 2, 2024) [hereinafter *VA Disability Rates*].
4. Carina L. Roselli, *Soldiers First: Proposed Burn Pit Legislation Would Remove Barrier to Veterans' Care*, 33 *HEALTH LAW* 13, 16 (2020).
5. Chisholm, *supra* note 2, at 43.
6. VA, *PRESUMPTIVE DISABILITY BENEFITS* (2022), <https://benefits.va.gov/BENEFITS/factsheets/serviceconnected/presumption.pdf> [hereinafter *VA PRESUMPTIVE DISABILITY BENEFITS*].
7. Chisholm, *supra* note 2, at 43.
8. *VA Disability Rates*, *supra* note 3.

9. *Infra* Part I.
10. PACT Act, Pub. L. No. 117-168, tits. II, IV, 136 Stat. 1759 (2022).
11. Commonwealth of Massachusetts, *Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water*, <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas> (last visited Mar. 14, 2025) [hereinafter *Mass. PFAS*].
12. *Id.*
13. VA Public Health, *PFAS—Perfluoroalkyl and Polyfluoroalkyl Substances*, <https://www.publichealth.va.gov/exposures/pfas.asp> (last updated Sept. 30, 2025).
14. *Mass. PFAS*, *supra* note 11.
15. Agency for Toxic Substances and Disease Registry (ATSDR), *How PFAS Impacts Your Health*, <https://www.atsdr.cdc.gov/pfas/about/health-effects.html> (last updated Nov. 12, 2024).
16. VA Public Health, *supra* note 13.

ties.¹⁷ AFFF uses high concentrations of PFAS, so when they are used on bases the PFAS run off into the water supply, which servicemembers then drink and use for other household purposes.¹⁸ Since most people have PFAS in their systems, it is challenging for veterans to overcome the burden of proof to show the PFAS are from their service.

However, high amounts of PFAS have been found in many military bases in the United States, including Fort Carson and Fort Bliss, which are both currently the subject of class action lawsuits for exposure to PFAS.¹⁹ The U.S. Department of Defense (DOD) has determined there are 450 military installations that are contaminated with PFAS, and it has been estimated that more than 640,000 people have received contaminated drinking water from those sites.²⁰ The VA has also recently declared that it will investigate if presumption of service connection should be granted narrowly for kidney cancer that is the result of PFAS exposure.²¹

Part I of this Comment addresses how the military handles service-connected disabilities, specifically presumption of service connection with Agent Orange and, more recently, burn pits and water contamination at Camp Lejeune. Part II addresses the dangers of PFAS and how they often show up in military training settings, exposing servicemembers to higher levels. Part III argues that the VA should offer presumption of service connection for veterans and servicemembers facing the consequences of PFAS exposure by referencing presumption for similar issues. Part IV concludes.

I. Presumption of Service Connection

Veterans receive their health care through the VA. The VA covers certain service-connected disabilities, which are disabilities and health issues that veterans acquire during their service, or ailments that are made worse by serving.²² Typically, veterans have the burden of proof to show the VA that their disability is the result of their service, and that therefore the VA should cover any costs related to it. The veteran must show three things to gain service-connected disability coverage: “(1) a current, chronic, diagnosed disability; (2) an in-service event, injury, or illness; and (3) a

medical nexus between the disability and the in-service event, injury, or illness.”²³

If the veteran can prove the connection, then the VA will grant a percentage disability rating, which dictates how much money the VA gives them.²⁴ The VA will send monthly, tax-free payments to veterans based on their disability rate framework.²⁵ The percentage disability rating is split into increments of 10, with 10% being a monthly payment of roughly \$171 and 100% disability being a monthly payment of roughly \$3,700.²⁶ The higher the disability rating, the more money the veteran and any dependents or spouse receive.²⁷ Presumption of service connection is therefore very important for veterans.

Presumption of service connection shifts the burden of proof and automatically grants the coverage if certain conditions are met.²⁸ Those conditions regard where and when the veteran served, and what kind of disability they now live with.²⁹ This way, veterans can be granted lifelong medical care and disability compensation without taking on the burden of proving that their disability was caused by their service.³⁰

Presumption of service connection is granted for certain ailments when, based on sound medical and scientific facts, a connection or association is established with a certain environmental exposure.³¹ The VA offers this because it understands that certain conditions that many veterans face are most likely the result of their service, and rather than approach each petition on a case-by-case basis, it feels confident assuming that the disabilities the veterans have are the result of their service.³²

Presumption of service connection is granted for certain ailments arising from environmental toxins. Ailments that are the result of Agent Orange or burn pit exposure are granted presumption of service connection.³³ Contaminated drinking water on some bases has also been granted a presumption.³⁴ Other things like certain cancers, post-traumatic stress disorder, or reproductive health issues partnered with serving in specific areas, will be granted the presumption.³⁵ The VA has a list of conditions that are granted presumption of service connection based on a veteran’s diagnosis and service details.³⁶ Some of these conditions and their cause for being granted presumption of service connection are detailed below.

17. *Id.*

18. *Id.*

19. Robert King, *Fort Carson Water Contamination Lawsuit [2025 Update]*, KING L. (Dec. 30, 2024), <https://www.robertkinglawfirm.com/personal-injury/military-base-water-contamination-lawsuit/fort-carson/> [hereinafter King, *Fort Carson*]; Robert King, *Fort Bliss Water Contamination Lawsuit [2025 Update]*, KING L. (Dec. 30, 2024), <https://www.robertkinglawfirm.com/personal-injury/military-base-water-contamination-lawsuit/fort-bliss/> [hereinafter King, *Fort Bliss*].

20. John E. Reeder, *As Veterans Grapple With Toxic Exposures, Demand for Health Care Surges*, ENV’T WORKING GRP. (Aug. 10, 2023), <https://www.ewg.org/news-insights/news/2023/08/veterans-grapple-toxic-exposures-demand-health-care-surges>.

21. Press Release, VA, VA to Review Possible Service Connection Between PFAS Exposure and Kidney Cancer (Sept. 25, 2024), <https://news.va.gov/press-room/va-to-review-possible-service-connection-between-pfas-exposure-and-kidney-cancer/>.

22. VA, *Eligibility for VA Disability Benefits*, <https://www.va.gov/disability/eligibility/> (last updated Aug. 15, 2023) [hereinafter *VA Eligibility*].

23. Roselli, *supra* note 4, at 16.

24. VA, *VA Disability Compensation*, <https://www.va.gov/disability/> (last updated Nov. 15, 2024).

25. *VA Eligibility*, *supra* note 22.

26. *VA Disability Rates*, *supra* note 3.

27. *Id.* Veterans with 20% or less disability rating are not given additional compensation for spouses or dependents.

28. VA PRESUMPTIVE DISABILITY BENEFITS, *supra* note 6.

29. Roselli, *supra* note 4, at 16.

30. *Id.*

31. Chisholm, *supra* note 2, at 43.

32. *Id.*

33. VA PRESUMPTIVE DISABILITY BENEFITS, *supra* note 6.

34. *Id.*

35. *Id.*

36. *Id.*

A. Agent Orange

It took the VA a very long time to recognize Agent Orange exposure consequences for veterans. Now, after years of lobbying, the VA will grant presumption of service connection and have veterans' medical care covered if they served in locations exposed to Agent Orange during the Vietnam War and now have certain conditions correlated with such exposure.³⁷

Agent Orange was an herbicide used by the U.S. military to clear foliage during the Vietnam War.³⁸ After the war, large numbers of veterans claimed that their medical ailments were the result of their exposure to Agent Orange during their service,³⁹ for example that it "caused them to develop malignant tumors, liver enzyme deficiency, and other conditions."⁴⁰ At the time, the only ailment the VA acknowledged as linked to Agent Orange exposure was chloracne, a skin condition that at its best appears as acne and at its worst can lead to open sores and permanent scarring.⁴¹ As a result, the VA denied most claims related to exposure before the mid-1980s, when the U.S. Congress finally passed the Veterans' Dioxin and Radiation Exposure Compensation Standards Act in 1984.⁴²

The Act ensured that veterans would receive compensation and coverage for *all* diseases connected to Agent Orange and other herbicide exposure.⁴³ Beyond just establishing service connection for Agent Orange exposure, this legislation was important because it provided that disabilities and diseases should be deemed a service connection "when there is a statistically significant association between the occurrence of the disease and exposure to Agent Orange."⁴⁴ This helps make it easier to satisfy the burden of proof than a direct causation requirement.

The VA attempted to fight this, issuing its own rule that reiterated that Agent Orange exposure would only be considered for a service presumption when it caused chloracne.⁴⁵ The rule stated that scientific evidence did not show a cause and effect relationship between dioxin and any other conditions.⁴⁶ Veterans initiated a class action lawsuit against the VA, alleging that the VA rule required a more intense cause-and-effect standard when the Act provided for a less stringent association standard.⁴⁷

The case, *Nehmer v. U.S. Veterans' Administration*, had veterans suing both the U.S. government and the VA.⁴⁸ They sued the U.S. government for the actual exposure,

and sued the VA for its lack of disability compensation, five years after the Act had been passed.⁴⁹ The suit stated that of the 9,170 veterans who had filed claims related to Agent Orange disability prior to 1984, 7,709 were denied for not being service-connected.⁵⁰ That is a 16% success rate on those claims. As of 1988, however, the number of denied cases was still extremely high and more than 31,000 veterans had been denied.⁵¹ The *Nehmer* court found that the VA was not fulfilling the requirements of the Act because of its cause-and-effect requirement, and invalidated the VA rule, voiding all denials of benefits resulting from it.⁵²

Today, the VA grants presumption of service connection for a variety of conditions related to Agent Orange exposure, including many types of cancer, heart disease, Parkinson's disease, diabetes, and more.⁵³ Presumption is granted for any disease the VA deems "associated with exposure to certain herbicide agents."⁵⁴ "Herbicide agent" is defined by federal regulation as "a chemical in an herbicide used in support of the United States and allied military operations in the Republic of Vietnam" between 1962 and 1975.⁵⁵ It applies to more than just Agent Orange use in Vietnam.⁵⁶

The presumption applies to a variety of specific geographical locations and certain periods of conflict where soldiers were exposed to herbicides.⁵⁷ It grants "special consideration" to veterans who may not have worked in the specific geological area during the specific time frame, but can still show that it was "at least as likely as not" that their presence in an area was contaminated by an herbicide, and that they now have the health effects that result from that exposure.⁵⁸

This is a major benefit for veterans who otherwise would struggle to prove a causation between the toxin exposure and their ailments. It indicates that the VA understands a wide variety of ailments are the result of exposure to environmental toxins, even if veterans are not able to prove that directly for their specific case. This set the standard for a lower burden of proof for veterans when it came to environmental toxin exposure, because of the near impossibility in being able to prove a direct causation between the two. This assumption laid the groundwork to grant presumption for other environmental toxin exposure conditions related to military service.

B. Burn Pits

The effects of burn pit exposure also took a long time for DOD to recognize. Therefore, granting presumption of service connection for exposure to burn pits also took the

37. *Id.*

38. Chisholm, *supra* note 2, at 43.

39. *Id.*

40. *Id.*

41. VA Public Health, *Chloracne or Acneform Disease and Agent Orange*, <https://www.publichealth.va.gov/exposures/agentorange/conditions/chloracne.asp> (last updated Sept. 30, 2024); Chisholm, *supra* note 2, at 43.

42. 38 U.S.C. §354; Chisholm, *supra* note 2, at 42.

43. 38 U.S.C. §354.

44. *Id.*

45. 38 C.F.R. §3.311.

46. *Id.* §3.311a(d).

47. *Nehmer v. U.S. Veterans' Admin.*, 712 F. Supp. 1404, 1409 (N.D. Cal. 1989).

48. *Id.* at 1407.

49. *Id.*

50. *Id.*

51. *Id.* at 1408.

52. *Id.* at 1409.

53. VA PRESUMPTIVE DISABILITY BENEFITS, *supra* note 6.

54. 38 C.F.R. §3.307(a) (2016).

55. *Id.* §3.307(a)(6)(i).

56. Chisholm, *supra* note 2, at 44.

57. *Id.*

58. VA, ADJUDICATION PROCEDURES MANUAL M21-1 pt. IV, subpt. ii, ch. 2, §A.1.b. (last updated Nov. 29, 2021).

VA a long time. In fact, similarly to Agent Orange, the VA was moving so slowly that Congress itself stepped in and passed a law necessitating presumption of service connection for burn pits.⁵⁹

Open-air burn pits were used during the Gulf War and the War on Terror to dispose of solid waste resulting from the years of conflict.⁶⁰ This practice released smoke into the air from medical and human waste, plastics, petroleum products, munitions, jet fuel, and Styrofoam.⁶¹ These items contained chemicals like polycyclic aromatic hydrocarbons, volatile organic compounds (VOCs), and various dioxins.⁶² The known effects of exposure to these chemicals include irritation of the skin, eyes, liver, kidneys, and gastrointestinal tract; damage to the nervous, respiratory, cardiovascular, and reproductive systems; and many of these chemicals are known carcinogens.⁶³

At its worst, more than 300 burn pits were in operation in Iraq and Afghanistan.⁶⁴ The National Academies of Sciences, Engineering, and Medicine estimated that bases with an average of 1,000 people created 30-42 tons of solid waste each day.⁶⁵ Yet, some bases were home to as many as 10,000-25,000 people, with an estimated 100-200 tons of solid waste each day.⁶⁶ Joint Base Balad was the worst offender, which at its peak had a burn pit that spanned 20 acres.⁶⁷

Prior to legislative action, a survey conducted by Iraq and Afghanistan Veterans of America found that 86% of respondents reported exposure to burn pits, and 88% believed they were experiencing symptoms caused by exposure to burn pits and other toxins.⁶⁸ Yet, the VA denied roughly 78% of burn pit-related disability claims.⁶⁹ Veterans had difficulty proving that their ailments were directly caused by their service, and the VA was inclined to not grant service connection in the absence of such evidence, since it would cost more money to do so. It was therefore critically important that veterans got presumption of service connection for the health issues they were facing from living on these bases.

DOD admitted it had knowledge of the health risks associated with open-air burn pits, and advised that they should not be used except in emergency situations, as early as 2006.⁷⁰ The Department continued over the next three years to discourage open-air burn pit use as much as possible because of the “significant environmental exposures” that come with it.⁷¹ DOD admitted in 2009 that the use of

burn pits creates an inherent risk of health issues and that their use should be terminated as soon as possible.⁷² Yet, it did not want to grant service connection for the health conditions associated with those who had been exposed to open-air burn pits.

Congress began acting in 2009, as it was becoming clear that burn pits were a dangerous health hazard for troops.⁷³ Cancer rates of veterans were increasing, so Congress investigated DOD health records to determine if there seemed to be a sufficient connection between the cancer rates and exposure to open-air burn pits.⁷⁴ Beyond cancer rates, veterans were showing chronic bronchitis, asthma, sleep apnea, chronic coughs, and allergy symptoms—all respiratory issues.⁷⁵

Congress in 2012 passed a bill requiring an open burn pit registry similar to the one the VA has for Agent Orange and the Gulf War, so that veterans could document their experiences and health issues.⁷⁶ This registry aims to show a correlation between the two by combining all the information into one source.⁷⁷ Congress also required a health assessment be done on every open-air burn pit at locations where more than 100 people have lived for 90 days or more.⁷⁸ Burn pits continued to be used at many bases because of the necessity of using them rather than incinerators, which gave off too much light or were unstable.⁷⁹

By 2019, burn pits were still being used and DOD was merely reiterating that they should be used only when necessary.⁸⁰ By 2020, DOD was required to report burn pit data to Congress; however, the definition of “burn pit” applied only to those operating in Iraq and Afghanistan, even though many were operating in other countries.⁸¹

Starting in 2020, because of the continuing danger of burn pit use and refusal to grant service connection for related claims, many bills were proposed for action on burn pits. The Toxic Exposure in the American Military (TEAM) Act of 2020 was proposed to improve health care for veterans exposed to toxic substances.⁸² This bill would have granted presumption of service connection to veterans who had possibly been exposed to toxic substances from burn pits or other sources during their service, and would have expanded health care services for such veterans.⁸³

Another bill was introduced that year, the Veterans Burn Pits Exposure Recognition Act of 2020, to amend Title 38 of the U.S. Code to “concede exposure to airborne hazards

59. PACT Act, Pub. L. No. 117-168, 136 Stat. 1759 (2022).

60. Roselli, *supra* note 4, at 16.

61. Chisholm, *supra* note 2, at 45.

62. *Id.*

63. *Id.*

64. Roselli, *supra* note 4, at 16.

65. INSTITUTE OF MEDICINE, LONG-TERM HEALTH CONSEQUENCES OF EXPOSURE TO BURN PITS IN IRAQ AND AFGHANISTAN (2011).

66. *Id.*

67. Chisholm, *supra* note 2, at 45.

68. Roselli, *supra* note 4, at 13.

69. *Id.*

70. U.S. ARMY, TECHNICAL BULLETIN TB MED 593, GUIDELINES FOR FIELD WASTE MANAGEMENT (2006).

71. Roselli, *supra* note 4, at 18.

72. *Id.*

73. *Id.*

74. *Id.* at 18-19.

75. *Id.* at 19.

76. Dignified Burial and Other Veterans' Benefits Improvement Act of 2012, Pub. L. No. 112-260, §201, 126 Stat. 2417, 2422 (2013).

77. *Id.*

78. National Defense Authorization Act for Fiscal Year 2012, Pub. L. No. 112-81, §316, 125 Stat. 1298, 1358-59 (2011).

79. Roselli, *supra* note 4, at 20.

80. *Id.* at 21.

81. National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, §333, 133 Stat. 1198, 1315 (2019); Roselli, *supra* note 4, at 22.

82. TEAM Act, S. 4393, 116th Cong. (2020).

83. *Id.*

and toxins from burn pits.⁸⁴ It also proposed presumption of service connection for veterans with these claims, but granted in the interim that cases could be decided by the VA on a case-by-case basis.⁸⁵ This bill covered a wider range of locations and times with which veterans could qualify for presumption of service connection.⁸⁶

The bill presented a broader definition of “burn pit,” encompassing any area of land used for disposal of solid waste by burning it in the outdoors (rather than just those operating in Afghanistan and Iraq).⁸⁷ U.S. Senate Bill 2950 does not list specific illnesses, just 50 toxic substances that veterans could be presumed to be exposed to in certain time frames at certain locations.⁸⁸ This bill did not progress from referral to the Committee on Veterans’ Affairs. Two other bills in 2020, U.S. House of Representatives Bill 8261 and Senate Bill 4572, stated similar goals.⁸⁹

However, it was the PACT Act in 2022 that finally granted presumption of service connection for exposure to burn pits and other toxic substances.⁹⁰ The PACT Act expanded health care to millions of veterans who could not otherwise prove service connection to their disability.⁹¹ The Act is one of the largest expansions of health care and benefits for veterans in VA history.⁹² It expanded eligibility for VA health care for veterans with toxic exposure from the Vietnam, Gulf, and post-9/11 wars; added more than 20 presumption of service connection conditions related to burn pits, Agent Orange, and other toxic exposures; added more presumption of service connection locations for Agent Orange and radiation; and requires the VA to give a toxic exposure screening to every veteran enrolled in VA health care.⁹³

The VA has thus far cooperated with the PACT Act with some enthusiasm, pledging that it will implement it years earlier than required by the Act.⁹⁴ Now, a long list of conditions related to burn pit exposure are presumed to be service-connected. The list includes brain cancer, gastrointestinal cancer of any type, lymphatic cancer of any type, head cancer of any type, reproductive cancer of any type, respiratory cancer of any type, a plethora of lung conditions, and several carcinomas.⁹⁵

C. Camp Lejeune

Camp Lejeune is a U.S. Marine Corps base in North Carolina.⁹⁶ The base operates like a small town, with families setting up homes in the area and sending their children to elementary schools on the base.⁹⁷ Unfortunately, the drinking water source for those living on the base was contaminated with toxic chemicals from the 1950s to the late 1980s.⁹⁸ Water testing done in the 1980s found that the drinking water was contaminated with high levels of VOCs and the solvents trichloroethylene (TCE) and tetrachloroethylene (PCE), as well as vinyl chloride (VC), benzene, and other refined petroleum products.⁹⁹ TCE, VC, and PCE are all carcinogens, and the toxins are all related to immune, neurological, and reproductive conditions.¹⁰⁰

The chemicals that leached into the groundwater from the base operations include “dry cleaning chemicals, industrial solvents, jet fuel, and other chemical byproducts of military-industrial processes.”¹⁰¹ It is believed that this runoff was caused by improper disposal and accidental spills of different chemicals.¹⁰² Because the base was made up of families, many of the people exposed were children or pregnant women.¹⁰³ Consequently, those living and working on the base experienced leukemia, lymphoma, bladder, kidney, and liver cancers, as well as birth defects and miscarriages.¹⁰⁴ Cases of Parkinson’s disease and other illnesses were reported as well.¹⁰⁵ It is alleged that the government knew of these health concerns related to the contaminated water yet did not warn those living on the base.¹⁰⁶ By the time the contaminated wells were closed in 1987, roughly one million servicemembers and family members had been exposed.¹⁰⁷

Similar to Agent Orange and burn pit exposure, what triggered the Marine Corps to test the water was state and federal obligations.¹⁰⁸ Camp Lejeune’s water was required to be tested because EPA had placed the site on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) national priorities list.¹⁰⁹ North Carolina state requirements also forced the North Carolina

84. Veterans Burn Pit Exposure Recognition Act of 2020, S. 2950, 116th Cong. (2020).

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. Presumptive Benefits for War Fighters Exposed to Burn Pits and Other Toxins Act of 2020, H.R. 8261, 116th Cong. (2020); Presumptive Benefits for War Fighters Exposed to Burn Pits and Other Toxins Act of 2020, S. 4572, 116th Cong. (2020).

90. PACT Act, Pub. L. No. 117-168, 136 Stat. 1759 (2022).

91. VA, *The PACT Act and Your VA Benefits*, <https://www.va.gov/resources/the-pact-act-and-your-va-benefits/> (last updated Mar. 5, 2024).

92. *Id.*

93. *Id.*

94. *Id.*

95. VA Public Health, *Airborne Hazards and Burn Pit Exposures*, <https://www.publichealth.va.gov/exposures/burnpits/> (last updated Feb. 3, 2025).

96. Meghan E. Brooks, *Early Reflections on a New Cause of Action for Camp Lejeune Veterans*, 14 WAKE FOREST J.L. & POL’Y 157, 157 (2024).

97. *Id.*

98. *Id.*

99. *Id.* at 159; NATIONAL RESEARCH COUNCIL COMMITTEE ON CONTAMINATED DRINKING WATER AT CAMP LEJEUNE, CONTAMINATED WATER SUPPLIES AT CAMP LEJEUNE: ASSESSING POTENTIAL HEALTH EFFECTS 1 (2009), https://www.ncbi.nlm.nih.gov/books/NBK215298/pdf/Bookshelf_NBK215298.pdf.

100. Brooks, *supra* note 96, at 159.

101. *Id.* at 157.

102. NATIONAL RESEARCH COUNCIL COMMITTEE ON CONTAMINATED DRINKING WATER AT CAMP LEJEUNE, *supra* note 99.

103. *Id.*

104. Brooks, *supra* note 96, at 157.

105. *Id.*

106. *Id.* at 157, 160-61, 163.

107. *Id.* at 160.

108. *Id.* at 161; MCB Camp Lejeune Timeline of Events, FEW PROUD FORGOTTEN, <https://ftptf.com/5873.html> (last visited Mar. 14, 2025).

109. ATSDR, PUBLIC HEALTH ASSESSMENT FOR U.S. MARINE CORPS CAMP LEJEUNE MILITARY RESERVATION, CAMP LEJEUNE, ONSLOW COUNTY, NORTH CAROLINA 1 (1997) (NC6 170022580), https://ftptf.com/images/CL_PHA_1997.pdf.

Department of Natural Resources and Community Development to investigate suspected off-base water pollution related to base activities.¹¹⁰ Congress continued to follow up with contamination concerns on the base, mandating a study on the drinking water and the scope of potential health concerns related to it in 2004.¹¹¹

Congress followed up again in 2006, mandating that the health risks associated with the contaminated water be studied through the National Defense Authorization Act (NDAA).¹¹² Individual claims were being filed against the U.S. Department of the Navy under the Federal Tort Claims Act, and veterans were filing service-connected disability claims for their exposure at Camp Lejeune.¹¹³ Reportedly, the VA was granting as much as 20%-25% of Camp Lejeune disability claims at this time, but that number decreased to just 1% after the VA implemented a program that sent the claims through an additional level of scrutiny in 2015.¹¹⁴

In 2016, the VA, under pressure since new data found sufficient evidence of causation between the exposure and certain cancers, finally granted presumption of service connection for eight conditions.¹¹⁵ Only those who worked on the base for at least 30 days during the exposure period as a servicemember qualified for the presumption.¹¹⁶ Therefore, it left out family members with conditions and veterans who had conditions outside the eight the VA admitted to.¹¹⁷ Regardless, the VA grant rate for Camp Lejeune claims increased to 28%.¹¹⁸

In 2022, Congress passed the Camp Lejeune Justice Act (CLJA) as part of the PACT Act.¹¹⁹ The CLJA was proposed twice in the Senate before this.¹²⁰ It provides a cause of action for any individual, not just veterans, for injuries suffered as a result of military service.¹²¹ That way, those who lived or worked on the base not as servicemembers can still recover damages. This recovery system does not replace VA health care claims, but complements them by allowing for additional compensation for those still waiting to hear about their VA claims or those who believe they are owed more.¹²²

Under the CLJA, veterans can bring suit against the military for health issues related to exposure to toxins at

Camp Lejeune.¹²³ At this time, hundreds of thousands of cases have been brought under the CLJA as mass tort litigation.¹²⁴ This demonstrates that not only does the government feel the VA is responsible for mitigating the harms done to people from this exposure, but that it was likely negligently covering up data that continued to harm those on the base. A similar argument could arise with PFAS claims if the government finds the military knew about and ignored the dangers.

II. The Dangers of PFAS

PFAS are synthetic compounds developed in the 1930s by a chemical group who was attempting to make nonstick and water-resistant coatings for a variety of industries.¹²⁵ PFAS have therefore been common in commercial applications since the 1940s.¹²⁶ They are created with carbon-fluorine bonds, which are chemically and thermally stable, making them one of the strongest bonds to exist.¹²⁷

PFAS are a class of more than 12,000 chemicals that are particularly unique and dangerous because they never fully break down and can accumulate in the human body.¹²⁸ This is why they are called “forever chemicals.”¹²⁹ Often, these chemicals are manufactured and end up in the water supply or soil through runoff. People can get PFAS in their systems from contaminated drinking water in addition to using materials in which PFAS are present, like certain furniture fabrics, food packaging, and so on.¹³⁰

Chemical companies knew these chemicals were harmful to those exposed to them, but for nearly 40 years suppressed research that would have indicated that to the public.¹³¹ Instead, they continued to let exposure to PFAS increase, allowing people to get sick.¹³² An overview of some of the sources, history, and effects of PFAS is detailed below.

A. Sources and History

Ninety-eight percent of Americans right now have detectable levels of these forever chemicals in their systems.¹³³ Generally, people are exposed to PFAS due to their use in a variety of industries.¹³⁴ PFAS exist in “food packaging, cos-

110. Laurel Beckley-Jackson, *Don't Drink the Water: The Camp Lejeune Water Contamination Incident*, 44 DTTP 4 (2016).

111. Act of Oct. 28, 2002, Pub. L. No. 108-375, §317, 111 Stat. 1811, 1844.

112. NDAA for Fiscal Year 2007, Pub. L. No. 109-364, §318, 120 Stat. 2083, 2143-44.

113. Brooks, *supra* note 96, at 164.

114. Catherine Herridge & Jessica Kegou, “Deny Until They Die”: Some Veterans Say VA Wrongly Rejects Claims for Illnesses They Blame on Camp Lejeune’s Contaminated Water, CBS News (Feb. 16, 2022), <https://www.cbsnews.com/news/va-camp-lejeune-contaminated-water-veterans-disability-claims>.

115. Diseases Associated With Exposure to Contaminants in the Water Supply at Camp Lejeune, 81 Fed. Reg. 62419 (proposed Sept. 9, 2016); Brooks, *supra* note 96, at 165.

116. 38 C.F.R. §3.309.

117. Brooks, *supra* note 96, at 165.

118. Herridge & Kegou, *supra* note 114.

119. PACT Act, Pub. L. No. 117-168, §804, 136 Stat. 1759, 1802 (2022).

120. CLJA of 2020, S. 4716, 116th Cong. (2020); CLJA of 2021, S. 3176, 117th Cong. (2021).

121. CLJA of 2021, S. 3176, 117th Cong. (2021).

122. Brooks, *supra* note 96, at 158.

123. PACT Act, Pub. L. No. 117-168, 136 Stat. 1759 (2022).

124. Brooks, *supra* note 96, at 170.

125. Mass. PFAS, *supra* note 11; Amanda F. Watson, *Remediation for PFAS Contamination: The Role of CERCLA Enforcement in Environmental Justice*, 58 GA. L. REV. 803, 813 (2024).

126. Nadia Gaber et al., *The Devil They Knew: Chemical Documents Analysis of Industry Influence on PFAS Science*, 89 ANNALS GLOB. HEALTH 37 (2023), <https://pmc.ncbi.nlm.nih.gov/articles/PMC10237242/>.

127. Michelle G. Scanlon, *Will “Forever Chemicals” Be Around Forever? An Analysis and a Proposal Concerning PFAS Contamination and Public Health*, 34 HEALTH LAW. 52 (2022).

128. *Id.* at 52-53; Press Release, VA, *supra* note 21.

129. Scanlon, *supra* note 127, at 52-53.

130. VA Public Health, *supra* note 13.

131. Gaber et al., *supra* note 126.

132. *Id.*

133. Morgan Coulson, *The Omnipresence of PFAS—And What We Can Do About Them*, JOHNS HOPKINS BLOOMBERG SCH. PUB. HEALTH (Mar. 28, 2024), <https://publichealth.jhu.edu/2024/what-to-know-about-pfas>.

134. Scanlon, *supra* note 127, at 52.

metics, cookware, waterproof textiles, guitar strings, dental floss, firefighting foam, and stain protectors.”¹³⁵ PFAS can be found in drinking water, soil and water near waste sites, fire-extinguishing foam, manufacturing and other chemical production facilities, food (e.g., fish caught in waters contaminated with PFAS), household products and dust, personal care products, and fertilizers.¹³⁶

Some groups have higher exposure to PFAS than the general public. Veterans specifically are exposed to higher rates of PFAS because they are present in the firefighting foam used in training on military bases and on other installations.¹³⁷ Children can be exposed through interactions with soils as well as ingesting breast milk of a mother with PFAS in her system, in addition to being exposed while in utero.¹³⁸ These chemicals are very prevalent, and exposure can happen in a variety of ways.

Chemical companies fought to suppress data relating to the dangers of these chemicals.¹³⁹ The U.S. military and major chemical companies like 3M and DuPont all denied data coming out in the 1970s indicating that PFAS were dangerous for human health.¹⁴⁰ A toxicity test in 1973, 10 years after Teflon had hit the market, showed that Teflon pans were toxic to birds when heated.¹⁴¹ It was not until 1980 that 3M tested the chemical levels of their employees’ blood and found elevated PFAS levels.¹⁴² Even then, they denied there were any negative health effects associated with that heightened concentration.¹⁴³ A study in 1978 found an “unusually large percentage” of elevated liver enzymes, which indicates a medical condition, in employees working near Teflon.¹⁴⁴ DuPont argued as long as possible that the data were inconclusive in showing that there was any correlation between exposure to the chemical and adverse health effects.¹⁴⁵

Animal toxicity studies in the 1980s continued to show liver damage, increased tumor incidents, and DNA damage from PFAS.¹⁴⁶ 3M continued to fund independent studies that contradicted this data or demonstrated it was not fatal or as impactful in humans.¹⁴⁷ Testing in the early 2000s finally began to show explicitly the connection between exposure and birth abnormalities and fatal conditions.¹⁴⁸

B. Effects

Exposure to PFAS is connected to a variety of immune and reproductive system impairments, and increased rates of cancer.¹⁴⁹ PFAS have been linked to higher rates of kidney and testicular cancers specifically, impaired metabolisms, liver and kidney disease, low birthweight and other birth defects, pregnancy-related hypertension, immune system damage, high cholesterol, ulcerative colitis, and endocrine disruption.¹⁵⁰ PFAS exposure has also been linked specifically with restricted fetal growth, impaired vaccine response, infertility, delayed puberty, early menopause, and metabolic issues, and has a relationship with behavioral and neurological issues like attention deficit hyperactivity disorder (ADHD), schizophrenia, and autism.¹⁵¹

The effects of PFAS were first noticed in factory employees who were working with PFAS.¹⁵² One of the earliest studies on the effects of PFAS found that smokers were having “influenza-like attacks” when they smoked tobacco contaminated with PFAS.¹⁵³ The study found these people to have respiratory and dermal toxicity, but did not declare it unsafe for human use.¹⁵⁴ When more cases involving Teflon-contaminated tobacco products arose, DuPont and the U.S. Air Force denied any correlation to the chemical.¹⁵⁵

In 1980, DuPont and 3M conducted a study that found that three out of eight pregnant women working on the chemical line gave birth to babies with birth defects or elevated PFAS levels.¹⁵⁶ As evidence was becoming clearer that there was a risk associated with PFAS exposure, DuPont and 3M attempted to argue that negative health effects only occurred when the chemicals were inhaled.¹⁵⁷ By 1994, they were still only admitting that there was a possibility of increased prostate cancers, and that no adverse health effects relating to the liver were evidenced.¹⁵⁸

Today, personal injury claims resulting from the effects of PFAS exposure have resulted in awards of \$670.7 million for more than 3,500 people.¹⁵⁹ Regulatory frameworks have developed as the connection between PFAS exposure and these effects have been proven.¹⁶⁰

135. *Id.*

136. U.S. EPA, *Our Current Understanding of the Human Health and Environmental Risks of PFAS*, <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas> (last updated Nov. 26, 2024) [hereinafter *EPA Risks of PFAS*].

137. Jeffrey Kluger, *How the U.S. Military Plans to Tackle Its “Forever Chemical” Problem*, *TIME* (Sept. 25, 2024), <https://time.com/7024084/us-military-plan-tackle-forever-chemicals/>.

138. *EPA Risks of PFAS*, *supra* note 136.

139. Gaber et al., *supra* note 126.

140. *Id.*

141. *Id.*

142. *Id.*

143. *Id.*

144. Cleveland Clinic, *Elevated Liver Enzymes*, <https://my.clevelandclinic.org/health/symptoms/17679-elevated-liver-enzymes> (last reviewed June 28, 2021); Gaber et al., *supra* note 126.

145. Gaber et al., *supra* note 126.

146. *Id.*

147. *Id.*

148. *Id.*

149. GENNA REED ET AL., CENTER FOR SCIENCE AND DEMOCRACY AT THE UNION OF CONCERNED SCIENTISTS, *A TOXIC THREAT: GOVERNMENT MUST ACT NOW ON PFAS CONTAMINATION AT MILITARY BASES 4-5* (2018); *EPA Risks of PFAS*, *supra* note 136.

150. ATSDR, *supra* note 15; Scanlon, *supra* note 127, at 52; Gaber et al., *supra* note 126.

151. Gaber et al., *supra* note 126.

152. Scanlon, *supra* note 127, at 56. Most famously, DuPont employees worked with PFAS and faced health consequences for the rest of their lives, including substantially higher rates of cancer and birth defects.

153. *Id.*

154. *Id.*

155. *Id.*

156. *Id.*

157. *Id.*

158. *Id.*

159. Gaber et al., *supra* note 126.

160. *See generally id.*; *infra* Part III.

C. Veteran Exposure to PFAS

PFAS have been explicitly linked with military operations and have been used in the military since the early 1970s.¹⁶¹ Specifically, firefighting actions during military operations and training expose servicemembers to high levels of PFAS.¹⁶² This is a large source of PFAS exposure for veterans.¹⁶³ Studies have shown PFAS to cause “suppressed immune function and other adverse health effects” at concentrations 10 billion times lower than the concentration in AFFF.¹⁶⁴ The military uses AFFF to suppress fire after firefighting activities or drills.¹⁶⁵ AFFF was created by 3M in association with the Navy in the 1960s.¹⁶⁶

The AFFF seeps into the groundwater on bases; that groundwater is then used by servicemembers for showering, drinking, cooking, and more.¹⁶⁷ The PFAS get into their bloodstream and accumulate.¹⁶⁸ A study of Joint Base Cape Cod’s soil and groundwater found elevated levels of perfluorooctanoic acid (PFOA) (one specific type of PFAS that EPA regulates) as well as heightened levels of PFAS that are not regulated by EPA.¹⁶⁹ Eighty percent (578 of 710) of military bases across the United States are known or suspected of having elevated levels of PFAS in their water sources and soil.¹⁷⁰

The VA has recently stated that they plan to investigate the connection between PFAS exposure during service and kidney cancer in veterans.¹⁷¹ If a strong enough connection is found, the VA will grant service connection for kidney cancer resulting from PFAS, which is only one of many health effects of PFAS exposure.¹⁷² This would be an important step toward presumption of service connection for all health effects from PFAS exposure. However, there are many other known health effects of PFAS.¹⁷³ Ideally, were the VA to confirm the correlation between exposure during service to PFAS from AFFF and kidney cancer, it would similarly find a correlation to other known illnesses that result from PFAS exposure that veterans now complain of.

Additionally, 27 states are filing suit against DOD, alleging that it is the Department’s responsibility to remedy the environmental damage it has caused through PFAS contamination.¹⁷⁴ Military base contamination can spread to the water supply of nearby towns, expanding the adverse health effects to those not in the military.¹⁷⁵ Depending on how these cases go, the court could declare that DOD

is responsible for heightened exposure and the resulting health effects of its PFAS contamination. This would indicate that the VA has a responsibility to cover veterans, possibly under a presumption of service connection, for effects of PFAS exposure that happened on these bases.

D. Current Regulatory Framework

EPA has attempted on many occasions to declare acceptable contamination levels of PFAS. In 2016, EPA published a health advisory attempting to establish an acceptable level of PFAS exposure in drinking water.¹⁷⁶ It determined the advisory level to be at 70 parts per trillion (ppt).¹⁷⁷ This advisory, however, was non-enforceable.¹⁷⁸ It was simply meant as a guidepost for acceptable PFAS levels in water, considering the information available at the time.¹⁷⁹ It could not be used to punish any companies or entities who contaminated water beyond this level.

In 2019, EPA published a PFAS action plan that detailed short-term actions taking place and established long-term goals to reduce contamination and exposure.¹⁸⁰ The plan included a description of where PFAS commonly come from and the instruments available to mitigate their damage.¹⁸¹ The action plan also described how CERCLA can be used to help reduce harm in areas where PFAS are suspected or known to be present.¹⁸²

EPA recently pushed to have PFAS contamination covered by CERCLA.¹⁸³ CERCLA is the most important legal mechanism in the United States for cleaning up hazardous chemicals in the environment.¹⁸⁴ It authorizes short-term removal actions to get chemicals out of environments, and long-term remedial actions that are focused on cleaning up locations on EPA’s national priorities list.¹⁸⁵

Utilizing this Superfund would allow the government to fund cleanup of communities with elevated levels of PFAS to try and mitigate the damage being caused by PFAS contamination. PFAS were previously designated as “CERCLA pollutants or contaminants” rather than hazardous substances, meaning CERCLA could only be used if a federal agency with CERCLA authority determined “PFOA or PFOS [perfluorooctanesulfonic acid] release may present an imminent and substantial danger to public health or welfare.”¹⁸⁶ As of July 2024, PFOA and PFOS were des-

161. Press Release, VA, *supra* note 21.

162. Bridger J. Ruyle et al., *Centurial Persistence of Forever Chemicals at Military Fire Training Sites*, 57 ENV’T SCI. & TECH. 8096 (2023).

163. VA Public Health, *supra* note 13.

164. Ruyle et al., *supra* note 162.

165. Watson, *supra* note 125, n.37.

166. Scanlon, *supra* note 127, at 56.

167. Kluger, *supra* note 137.

168. Scanlon, *supra* note 127, at 52-53.

169. Ruyle et al., *supra* note 162.

170. Kluger, *supra* note 137.

171. Press Release, VA, *supra* note 21.

172. *Id.*

173. REED ET AL., *supra* note 149; Scanlon, *supra* note 127, at 52, 56; Gaber et al., *supra* note 126; ATSDR, *supra* note 15.

174. Kluger, *supra* note 137.

175. *Id.*

176. U.S. EPA, FACT SHEET: PFOA & PFOS DRINKING WATER HEALTH ADVISORIES 2 (2016), https://www.epa.gov/sites/default/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfes_updated_5.31.16.pdf [hereinafter EPA FACT SHEET].

177. *Id.*

178. Gaber et al., *supra* note 126.

179. EPA FACT SHEET, *supra* note 176.

180. U.S. EPA, EPA’S PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ACTION PLAN (2019), https://www.epa.gov/sites/default/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf [hereinafter EPA PFAS ACTION PLAN 2019].

181. *Id.*

182. *Id.* at 15.

183. Watson, *supra* note 125, at 818.

184. *Id.*

185. U.S. EPA, *Superfund: CERCLA Overview*, <https://www.epa.gov/superfund/superfund-cercla-overview> (last updated Oct. 8, 2024).

186. EPA PFAS ACTION PLAN 2019, *supra* note 180.

igned as hazardous substances under CERCLA.¹⁸⁷ This gives the government much more discretion in cleaning up these contaminated sites.

The Joseph Biden-Kamala Harris Administration in October 2021 announced “accelerated efforts to protect Americans” from PFAS.¹⁸⁸ EPA, in connection with this, launched the PFAS Roadmap that laid out EPA actions from 2021 to 2024 with the goal of researching, restricting, and remediating harmful PFAS.¹⁸⁹ The plan aims to clean up PFAS as well as reduce their release into the environment.¹⁹⁰ It would do this mainly by controlling the sources of PFAS and holding polluters accountable, and relies on the frameworks already existent under CERCLA.¹⁹¹ The announcement specifically referenced DOD’s “PFAS cleanup assessments” at all installations and National Guard locations where PFAS may have been used or released.¹⁹² The assessment comes with a grant meant to be used to investigate a PFAS-free firefighting foam replacement, indicating the known causal effect between use of the foam and health ailments of veterans.¹⁹³

In April 2024, EPA laid out maximum contaminant levels (MCLs) for many common PFAS.¹⁹⁴ At the same time, the Agency asserted that there will be CERCLA enforcement discretion as it relates to those who significantly contribute to the release of PFAS into the environment.¹⁹⁵ EPA declared that a range of 4 ppt to 10 ppt was acceptable for the six most common PFAS, compared to the 70 ppt established in 2016.¹⁹⁶ However, no level of PFAS is safe or good. Some scientists have declared that any level above 1 ppt in our drinking water is not safe.¹⁹⁷

In the same rule, EPA stated that public water suppliers and other public institutions like the military had until 2027 to test for PFAS contamination in their systems, and then until 2029 to begin cleanup operations for contaminated areas.¹⁹⁸ 2029 is EPA’s cutoff for compliance with MCLs for specific PFAS in drinking water.¹⁹⁹ At that time, public water systems will be required to notify the public of health concerns relating to PFAS exposure.²⁰⁰ As of Septem-

ber 2024, approximately 77% of public water systems had not fully implemented a PFAS treatment method.²⁰¹

Even years before these standards were in place, in 2005, EPA fined DuPont \$16.5 million for its “decades-long cover-up of the health hazards” of PFAS.²⁰² This was the largest fine ever levied by EPA.²⁰³ The Agency found that DuPont had violated the Toxic Substances Control Act for failure to disclose its findings on PFAS when it knew or should have known that they were toxic.²⁰⁴ Now, with further frameworks for safety levels and enforcement, fines like these may be implemented more regularly, even against the VA.

EPA had been increasing its enforcement ability when it comes to PFAS contamination. Now that it has implemented comprehensive MCLs and asserted CERCLA enforcement for PFAS, it should have an easier time detecting PFAS levels in water and soil, and work to clean up those areas. This can be applied to military bases, as was recommended in the 2024 rule.²⁰⁵

III. Granting a Presumption of Service Connection for PFAS Exposure

The VA should offer presumption of service connection for veterans who are affected by exposure to PFAS. PFAS are known to have negative health effects, and it has been confirmed by DOD that a vast majority of military bases have high levels of PFAS contamination due to AFFF runoff into water sources.²⁰⁶ The VA has claimed it wants to provide service connection for as many veterans as it can, but there is marked evidence that the VA will not actually increase its approval numbers until it grants presumption of service connection.²⁰⁷

The VA has already opened the door to grant presumption of service connection for PFAS exposure. It has tested military bases for PFAS contamination and found that the concentration levels were far higher than regular levels should be.²⁰⁸ The cause of that contamination is known to be the use of AFFF on the bases.²⁰⁹ Although the VA has not declared that any site is dangerous, the data show that the levels are high enough to do damage to those who use the water.²¹⁰ There is a strong indication of causation between the contaminated water and conditions veterans are now facing—conditions that are known to be the effects of PFAS exposure. The VA has granted presumption of service connection for other health issues related to exposure to environmental toxins, so it would not be abnormal to do so with PFAS.

187. U.S. EPA, *TRI-Listed Chemicals*, <https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals> (last updated Jan. 8, 2025).

188. Fact Sheet, The White House, Biden-Harris Administration Launches Plan to Combat PFAS Pollution (Oct. 18, 2021), <https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2021/10/18/fact-sheet-biden-harris-administration-launches-plan-to-combat-pfas-pollution/>.

189. *Id.*

190. *Id.*

191. *Id.*

192. *Id.*

193. *Id.*

194. U.S. EPA, *Per- and Polyfluoroalkyl Substances (PFAS): Final PFAS National Primary Drinking Water Regulation*, <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas> (last updated Feb. 19, 2025) [hereinafter EPA PFAS Rule April 2024].

195. U.S. EPA, *Key EPA Actions to Address PFAS*, <https://www.epa.gov/pfas/key-epa-actions-address-pfas> (last updated Jan. 24, 2025).

196. Kluger, *supra* note 137; EPA PFAS Rule April 2024, *supra* note 194; EPA FACT SHEET, *supra* note 176.

197. Gaber et al., *supra* note 126.

198. Kluger, *supra* note 137.

199. U.S. GOVERNMENT ACCOUNTABILITY OFFICE, GAO-24-106523, PERSISTENT CHEMICALS: ADDITIONAL EPA ACTIONS COULD HELP PUBLIC WATER SYSTEMS ADDRESS PFAS IN DRINKING WATER (2024).

200. *Id.*

201. *Id.*

202. Scanlon, *supra* note 127, at 58.

203. *Id.*

204. Gaber et al., *supra* note 126.

205. EPA PFAS Rule April 2024, *supra* note 194.

206. Reeder, *supra* note 20.

207. Herridge & Kegou, *supra* note 114; Press Release, VA, *supra* note 21.

208. Reeder, *supra* note 20.

209. Kluger, *supra* note 137.

210. *Id.*

The VA has begun to investigate if there is a connection between PFAS exposure on military bases and kidney cancer.²¹¹ This is happening because of the PACT Act's scientific assessment process,²¹² which encourages research into the state of different bases. The PACT Act's goal is to expand benefits and services for veterans and their families who were exposed to toxins.²¹³ Because of the PACT Act, many more presumptions have been granted for a variety of cancers.²¹⁴ Three hundred new conditions have been granted presumption.²¹⁵

Because the PACT Act is focused on cancers, that is all the VA was considering in terms of granting presumption for PFAS exposure.²¹⁶ If it finds the connection between PFAS exposure and cancers associated with exposure, it would not be a stretch to find a connection between exposure and non-cancer ailments, and then grant presumption for those conditions as well. If the VA is resistant to this, veterans can attempt to persuade Congress to step in, like with Agent Orange and burn pits. That should be easier now than it was before, since the PACT Act arguably already calls for this.

There has already been movement in the push toward granting presumption for PFAS exposure. Class action lawsuits are springing up against chemical companies from veterans who worked at certain bases and now have adverse health issues. Veterans who worked at Fort Carson and Fort Bliss have brought lawsuits against the chemical companies responsible for creating the products with PFAS.²¹⁷ The veterans complain of PFAS in the water supply that cause kidney, thyroid, bladder, and pancreatic cancer, as well as thyroid disease.²¹⁸

Both lawsuits are alleging that PFAS from AFFF contaminated the water on the bases and that as a result, those on the bases developed a variety of health issues.²¹⁹ Depending on the success of these claims, it would not be unlikely that similar cases are brought against the government for knowingly leaving servicemembers and their families on these bases to continue to be exposed to the toxins—such a lawsuit happened with Camp Lejeune.²²⁰ At the least, such lawsuits will push representatives to move for the VA to grant the presumption under authority from the PACT Act.

The stream of events playing out right now with the VA and PFAS is similar to what happened with Agent Orange, open-air burn pits, and Camp Lejeune. The VA dragged its feet even though it had admitted a connection between exposure to environmental hazards during military operations and adverse health effects. With Agent Orange, the VA did not want to admit that exposure caused more than

rashes.²²¹ But when the evidence was showing otherwise, Congress and the courts stepped in to declare that there was enough of a medical and scientific association between exposure to the hazard and resulting health effects to require a presumption.²²²

Veterans had to lobby for years to get Congress to force the VA to acknowledge their claims. And Camp Lejeune had data in the 1980s that the water was contaminated and causing cancers and immune and reproductive issues, but did not grant presumption until it was forced to under the PACT Act in 2022.²²³ In each case, veterans knew before anyone else, and when they had the science to back it up, they were able to make a strong enough case for presumption of service connection, even when the VA did not want to.

Further, PFAS exposure in veterans looks similar to the exposure of DuPont employees. DuPont, like the VA, fought for decades to ignore the strong emerging evidence that there was a causal relationship between an employee's proximity and exposure to PFAS and the elevated percentage of adverse health conditions.²²⁴ Eventually, DuPont was fined millions of dollars for exposing and subsequently covering up exposing its employees to the chemical when a class action suit was brought against it.²²⁵ The military is similarly situated with veterans. There is strong emerging evidence that veterans are exposed to higher levels of PFAS through AFFF, and that such elevated exposure is correlated with adverse health effects that veterans face.

The federal government has already indicated a desire to increase the number of presumption of service-connected disabilities (via the PACT Act) and a desire to mitigate damage related to PFAS exposure (via recent EPA rules, fines, and updated hazardous substance classifications). The PACT Act creates a window, perhaps even a requirement, that the VA cover health care related to PFAS exposure on military bases. The PACT Act concerns covering environmental toxins that cause ailments like cancer, and PFAS are known to be in that category. Further, PFAS are toxins with effects that are difficult to prove are directly related to exposure, and even more challenging to prove the exposure during service was what caused it rather than exposure in everyday life. This is exactly when presumption is supposed to be used to help veterans.

Veterans have a difficult route ahead of them without presumption of service connection. Without it, veterans will struggle to establish that their disability or disease is the result of their service. The burden of proof to establish service connection is already difficult, but that burden is even heavier when it comes to proving connection to environmental hazards that we have less scientific knowledge and documentation about.²²⁶

211. Press Release, VA, *supra* note 21.

212. *Id.*

213. *Id.*

214. *Id.*

215. *Id.*

216. *Id.*

217. King, *Fort Bliss*, *supra* note 19; King, *Fort Carson*, *supra* note 19.

218. King, *Fort Bliss*, *supra* note 19.

219. *Id.*; King, *Fort Carson*, *supra* note 19.

220. *Nehmer v. U.S. Veterans' Admin.*, 712 F. Supp. 1404 (N.D. Cal. 1989).

221. Chisholm, *supra* note 2, at 43.

222. Gaber et al., *supra* note 126.

223. *See generally* Brooks, *supra* note 96.

224. Gaber et al., *supra* note 126.

225. Scanlon, *supra* note 127, at 158.

226. Chisholm, *supra* note 2, at 42.

Further, it is difficult to prove in those situations that the exposure came from service and not something else, since these specific chemicals are so prevalent in American society and almost everyone has been exposed to them.²²⁷ Veterans face higher concentrations because of their service, but without presumption of service connection, the VA will continue to try to deny these claims.²²⁸ It did so with Agent Orange claims as well as burn pit claims. Class action suits have already started,²²⁹ showing that veterans know they have strong enough claims of causation that would indicate that the VA needs to be covering their disability.

If veterans were granted presumption of service connection for exposure to PFAS, it would mean that any veteran who could show that they worked on a base that used AFFF and now has a health condition associated with PFAS exposure would be granted coverage for costs related to that disability. The VA would list the bases with contamination levels high enough that it can be assumed to be more likely than not that a veteran's disability is related to that exposure and list the ailments that would indicate a relationship to the PFAS exposure. The bases covered would be the ones DOD has found to have elevated contamination levels, and the ailments would likely be certain cancers, kidney issues, reproductive problems, and immune deficiencies that are associated with PFAS exposure. This could take the burden of proof off of veterans who know they have health issues related to this exposure, but know their chances of proving it to the VA are slim to none.

The VA has a history of responding to veterans' claims relating to environmental exposure by "ignoring the issue, then studying it at length, and then establishing limited presumptive entitlements to VA disability compensation payments via statute and rulemaking."²³⁰ If the VA refuses to grant the presumption for PFAS exposure on its own, it likely is facing years of court battles in which it will have to argue on record that its veterans do not deserve coverage for the ailments they incurred as a result of their service. Congress will likely enforce the PACT Act against the VA, requiring it to cover these service-connected problems. This has happened with Agent Orange, burn pits, and exposure to other environmental toxins like at Camp Lejeune.²³¹

The VA will end up being responsible for paying the veterans to whom it has denied coverage and granting the presumption moving forward. The process would be much quicker and easier for all parties if the VA accepts what the data show and agrees to grant service connection. The VA prides itself on the benefits it grants veterans through its health care program and has promoted its toxic screening procedure and registry for veterans exposed to PFAS.²³² It

would therefore be quite contradictory to be attempting to deny all PFAS claims it can.

A presumption of service connection could also come with a requirement for more stringent testing and regulation of PFAS in military operations. This would mean military bases have a level stricter than the EPA federal standard, because in reality no level of PFAS is safe and yet everyone is exposed to them.²³³ This could help the VA not only keep servicemembers safer, but also cut costs on the payments it will have to be providing for veterans who have service-connected disabilities. CERCLA could also be used to clean up these bases.²³⁴

Veterans already have a higher chance of having a variety of health ailments due to their service, including cancers and reproductive issues.²³⁵ Studies show that 21% of veterans have trouble conceiving, and 26% reported miscarriages or stillbirths, both of which are higher than the national average.²³⁶ Cancer rates are also higher in veterans because of their increased chance of exposure to carcinogens during service.²³⁷ The VA estimates that more than 50,000 new cancer cases are diagnosed annually in VA health systems.²³⁸

Granting presumption of service connection costs the VA money because it increases the claims it approves.²³⁹ Additionally, there is no evidence right now of elevated PFAS levels in veterans compared to the general public, which would be indisputable evidence to grant the presumption. However, proactively granting the presumption can save the VA money in the long run by avoiding litigation related to denying PFAS claims. Further, the registry the VA is building should soon show elevated levels of PFAS in veterans.

In addition, the difficulty in proving that PFAS exposure ailments came from specifically a veteran's service is exactly why the presumption of service connection exists. The difficulty in proving the exact source of their PFAS exposure is precisely why it is so important for the VA to grant the presumption, especially since the evidence is so clear that higher rates of exposure happen on military bases and veterans are indeed facing the health consequences relating to PFAS exposure. Showing elevated blood levels in veterans would likely be enough to get a veteran service connection even without the presumption. But presumption of service connection is meant to be used when conditions

227. ATSDR, *How to Prevent PFAS Exposure*, <https://www.atsdr.cdc.gov/pfas/prevent-exposure/> (last updated Nov. 12, 2024); Scanlon, *supra* note 127, at 52.

228. Gaber et al., *supra* note 126.

229. King, *Fort Bliss*, *supra* note 19; King, *Fort Carson*, *supra* note 19.

230. Brooks, *supra* note 96, at 158.

231. *Supra* Part I.

232. Press Release, VA, *supra* note 21; Matt Coveney, *PFAS Exposure, VETERANS GUIDE* (Jan. 22, 2025), <https://veteransguide.org/toxic-exposure/pfas/>.

233. Gaber et al., *supra* note 126.

234. EPA PFAS ACTION PLAN 2019, *supra* note 180.

235. See generally Julie A. Bytnar et al., *Cancer Incidence in the US Military: An Updated Analysis*, 130 *CANCER* 96 (2024), <https://pubmed.ncbi.nlm.nih.gov/37725334/>.

236. Alexa Friedman et al., *Preliminary Findings From the Gulf War Women's Cohort: Reproductive and Children's Health Outcomes Among Women Veterans*, 19 *INT'L J. ENV'T RSCH. & PUB. HEALTH* 8483 (2022), <https://pmc.ncbi.nlm.nih.gov/articles/PMC9323962/>; COLLEEN N. NUGENT & ANJANI CHANDRA, NATIONAL CENTER FOR HEALTH STATISTICS, REPORT NO. 202, *INFERTILITY AND IMPAIRED FECUNDITY IN WOMEN AND MEN IN THE UNITED STATES, 2015-2019* (2024), <https://www.cdc.gov/nchs/data/nhsr/nhsr202.pdf>.

237. American Cancer Society, *US Military Veterans and Cancer*, <https://www.cancer.org/cancer/veterans.html> (last visited Mar. 14, 2025).

238. *Id.*

239. Herridge & Kegu, *supra* note 114.

are more likely than not the result of service, and those elements are satisfied with the evidence regarding PFAS on military bases.²⁴⁰

The VA is responsible for taking care of veterans after their service and claims it wants to give veterans the benefits they deserve when it comes to granting disability.²⁴¹ The evidence shows clearly that PFAS exposure leads to the types of ailments that veterans are experiencing, and that AFFF has levels of PFAS that are damaging to humans.²⁴² Lawsuits have already begun regarding these contaminations and surely more will follow, even against the VA if it continues to not grant service connection.²⁴³

IV. Conclusion

The VA has a responsibility and a history of aiding in covering medical costs related to disabilities and ailments that are a result of a veteran's time of service.²⁴⁴ It has systems in place so that those whose ailments are associated with their service and are more likely than not caused by their service are granted presumption of service connection for their disability. The VA does this because some medical issues are clearly the result of certain environmental exposures, but without the presumption it would be difficult to show a direct causation between the exposure and the ailment.²⁴⁵ The VA has granted this presumption for similar environmental exposure issues, such as Agent Orange, burn pits, and contaminated drinking water.²⁴⁶

The VA has historically been forced by Congress to make this move.²⁴⁷ The government does not seem inclined to let the VA deny claims relating to environmental toxin expo-

sure simply because it is harder to prove causation. When the VA has tried to limit or deny coverage for health conditions arising from environmental toxin exposure, Congress has stepped in to require it to grant presumption of service connection for those conditions.²⁴⁸ In some cases, like with Camp Lejeune, it has also granted individuals the right to litigate these claims for further damages.²⁴⁹

The VA should grant presumption of service connection for servicemembers and veterans experiencing the consequences of PFAS exposure. It is not only the right thing to do, since the VA is responsible for the exposure to veterans, but is also inevitable. DOD has already admitted high levels of PFAS in the water supply at the vast majority of military bases, which are known to be the result of AFFF runoff from firefighting foam, and the effects of PFAS are known to be certain cancers and respiratory, immune, and reproductive system problems, many of which veterans who were exposed to these contaminated waters now have.

The VA is facing clear data that show PFAS are present on military bases, and that the effects of exposure to those chemicals are serious health conditions.²⁵⁰ The PACT Act demonstrated a desire by the government to have the VA grant coverage for disability claims arising from environmental exposures. If the VA denies presumption of service connection for health issues resulting from PFAS exposure, there is likely to be a lot of litigation and legislative action, eventually resulting in the VA granting the presumption. Instead, the VA should learn from its own history and grant the presumption for all known effects of PFAS exposure that veterans are now suffering from.

240. Chisholm, *supra* note 2, at 43.

241. Press Release, VA, *supra* note 21 (repeating the VA's statement that they want to give veterans the benefits they deserve in the context of granting presumption of service connection for kidney cancers resulting from PFAS exposure).

242. *Supra* Part II.

243. King, *Fort Bliss*, *supra* note 19; King, *Fort Carson*, *supra* note 19.

244. VA PRESUMPTIVE DISABILITY BENEFITS, *supra* note 6.

245. Chisholm, *supra* note 2, at 43.

246. *Supra* Part I.

247. Brooks, *supra* note 96, at 158.

248. *Supra* Part I.

249. Brooks, *supra* note 96, at 158.

250. *Supra* Parts II, III.