UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

TRISTAN ROSE PERKINS, Independent Administratrix of Succession of the Decedent GERALDINE RABB PERKINS, Plaintiff(s), v. UNITED STATES OF AMERICA, Defendant(s).	CASE NO. C22-5701-KKE FINDINGS OF FACT AND CONCLUSIONS OF LAW

This matter was tried before the Court, sitting without a jury, for eight days in June 2024, with closing arguments concluding the trial on August 5, 2024. Dkt. Nos. 104–06, 110, 112, 115–16, 127.[1] The Court, having considered the evidence before it, including the testimony of the witnesses and exhibits admitted, having heard argument, and considered the briefs and memoranda of counsel, makes findings of fact and conclusions of law as stated herein. For the reasons explained herein, the Court enters judgment for the Defendant.

[1] This order refers to docket entries using their CM/ECF page numbers.

I. INTRODUCTION

Geraldine Rabb Perkins died on June 6, 2020, after she was diagnosed with pleural mesothelioma. Plaintiff Tristan Rose Perkins,[2] Geraldine's daughter and the administrator of her estate, sued the Defendant, the United States ("the Government"), for wrongful death and survivorship under the Federal Tort Claims Act ("FTCA"). According to Plaintiff's complaint, Geraldine's mesothelioma was caused in part by para-occupational and environmental exposure to asbestos fibers originating from Puget Sound Naval Shipyard ("the Shipyard"), where her husband, Harang Joseph Perkins, worked while their family lived in Bremerton, Washington, between approximately 1968 and 1974. Specifically, Plaintiff claims that Geraldine was exposed para-occupationally through H.J., an enlisted U.S. Navy Machinist's Mate who worked at the Shipyard and brought home his work clothes to be laundered by Geraldine. Plaintiff also claims that Geraldine was exposed to asbestos via fibers that escaped from the Shipyard and reached the Perkins home.

On June 26, 2023, the Court dismissed the following claims for lack of subject matter jurisdiction under the FTCA's discretionary function exception: "[c]laims based on events arising before March 1970; claims based on the Navy's [alleged] failure to provide [H.J.] with protective equipment like a dust respirator, laundry service, and/or a place to shower and/or change; and claims based on the Navy's failure to warn of para-occupational and environmental asbestos exposure hazards[.]" Dkt. No. 23 at 14.

In March 2024, following the close of discovery, the Government filed a motion to dismiss the remaining claims for lack of subject matter jurisdiction, and requested summary judgment in the alternative. Dkt. No. 51. The Court denied the motion for summary judgment and denied the

[2] In the interest of clarity, Geraldine and H.J. Perkins are referred to by their first names, and their daughter Tristan Perkins is referred to as Plaintiff.

motion to dismiss without prejudice, finding questions of fact that must be resolved before it could determine whether an exception to the FTCA's waiver of sovereign immunity applied. Dkt. No. 73. The Court found that the motion to dismiss could be "re-raised, if appropriate, at trial." *Id*. at 14. Therefore, the remaining claims that proceeded to trial were limited to Plaintiff's claims arising from allegations that Geraldine was para-occupationally exposed to asbestos between March 1970 and August 1972, and environmentally exposed to asbestos between March 1970 and March 1974.

At the end of trial, during closing argument, the Government renewed its motion to dismiss those claims for lack of subject matter jurisdiction. As explained in the next section, the Court denies that motion, and then turns to consider the merits of Plaintiff's claims.

II. THE GOVERNMENT'S MOTION TO DISMISS IS DENIED

A. Legal Standards

A complaint must be dismissed under Federal Rule of Civil Procedure 12(b)(1) if, considering the factual allegations in the light most favorable to the plaintiff, the action: (1) does not arise under the Constitution, laws, or treaties of the United States, or does not fall within one of the other enumerated categories of Article III, Section 2, of the Constitution; (2) is not a case or controversy within the meaning of the Constitution; or (3) is not one described by any jurisdictional statute. *Baker v. Carr*, 369 U.S. 186, 198 (1962); *see also* 28 U.S.C. §§ 1331 (federal question jurisdiction), 1346(b)(1) (United States as a defendant).

The United States, as sovereign, is immune from suit unless it consents to be sued. *See United States v. Mitchell*, 445 U.S. 535, 538 (1980). The FTCA, the statute upon which this case is brought, is a limited waiver of sovereign immunity. *See* 28 U.S.C. § 1346(b). The FTCA is the exclusive remedy for state law torts committed by federal employees within the scope of their employment. 28 U.S.C. § 2679(b)(1). "The FTCA was created by Congress with the intent to

compensate individuals harmed by government negligence, and as a remedial statute, it should be construed liberally, and its exceptions should be read narrowly." *Terbush v. United States*, 516 F.3d 1125, 1135 (9th Cir. 2008) (cleaned up).

One of the exceptions to the FTCA's waiver of sovereign immunity applies to discretionary governmental conduct: "The discretionary function exception insulates certain governmental decision-making from judicial second guessing of legislative and administrative decisions grounded in social, economic, and political policy through the medium of an action in tort." *Myers v. United States*, 652 F.3d 1021, 1028 (9th Cir. 2011) (cleaned up). A two-step test is used to determine whether the discretionary function exception applies. *Terbush*, 516 F.3d at 1129. In the first step, the court determines "whether the challenged actions involve an element of judgment or choice." *Id.* (cleaned up). "The discretionary element is not met where a federal statute, regulation, or policy specifically prescribes a course of action for an employee to follow." *Id.* (cleaned up). The inquiry ends if there is such a statute or policy directing mandatory and specific action "because there can be no element of discretion when an employee has no rightful option but to adhere to the directive." *Id.* (cleaned up).

If the challenged actions do involve an element of judgment or choice, then the court turns to the second step in the test. *Terbush*, 516 F.3d at 1129. This step requires the court to "consider 'whether that judgment is of the kind that the discretionary function exception was designed to shield,' namely, 'only governmental actions and decisions based on considerations of public policy.'" *Id.* (quoting *Berkovitz v. United States*, 486 U.S. 531, 536–37 (1988)). The Supreme Court explained in *United States v. Gaubert* that "if a regulation allows the employee discretion, the very existence of the regulation creates a strong presumption that a discretionary act authorized by the regulation involves consideration of the same policies which led to the promulgation of the regulations." 499 U.S. 315, 324 (1991). "When established governmental policy, as express or

implied by statute, regulation, or agency guidelines, allows a Government agent to exercise discretion, it must be presumed that the agent's acts are grounded in policy when exercising that discretion." *Id.*

B. The Government Failed to Establish That All Shipyard Policies During the Relevant Period Preserved the Government's Discretion.

Plaintiff's claims that survived to trial were based on an allegation that the Navy had failed to follow its own asbestos-related policies, and that this failure led Geraldine to be exposed to asbestos, which ultimately led to her fatal mesothelioma. *See* Dkt. No. 1 ¶¶ 111–15. As a result of prior Court orders dismissing certain claims, the claims remaining for trial were: (a) Plaintiff's claim of Geraldine's para-occupational exposure from March 1970 to August 1972, based on the Navy's alleged failure to follow asbestos-handling procedures as detailed in NAVMAT P-5100 ("P-5100"), NAVSHIPS Instruction 5100.26 ("5100.26"), and Chapter 9390 of the Naval Ships Technical Manual ("Chapter 9390"), which led to asbestos dust adhering to H.J.'s clothing that was brought home for laundering; and (b) Plaintiff's claim for Geraldine's environmental exposure from March 1970 to March 1974, based on the Navy's alleged violation of policies regarding asbestos handling and clean-up required in P-5100, 5100.26, and Chapter 9390, which led to the release of asbestos fibers that traveled from the Shipyard to Geraldine's home. *See* Dkt. No. 23 at 6–9, 14; Dkt. No. 73 at 13.

As noted above, in its order denying the Government's motion to dismiss without prejudice, the Court found factual questions as to whether the Shipyard policies were mandatory and specific for purposes of the first step of the test for applying the FTCA's discretionary function exception. Dkt. No. 73 at 10–12.

P-5100, 5100.26, and Chapter 9390 prescribe a number of asbestos-related procedures that were arguably not strictly followed at the Shipyard. Specifically, P-5100 lists a number of

procedures that promote the safe handling of asbestos, including, for example, instructions that: asbestos dust concentrations not exceed a specified number; scrap material containing asbestos be wet down before it is shoveled, hauled, or dumped; discarded materials containing asbestos be placed in sealed plastic bags for removal and disposal; personnel removing asbestos-containing materials be provided clean coveralls at the beginning of each shift; removal of asbestos-containing materials be performed only in designated areas with barriers to prevent dust escape. Ex.[3] 39. 5100.26 and Chapter 9390 prescribe similar "appropriate safety precautions" for use of asbestos-containing materials. Exs. 99, 103.

Plaintiff alleges that the Government was required to follow those precautions and that its failure to do so was negligent. According to Plaintiff, if the Government had followed the precautions listed in P-5100, 5100.26, and/or Chapter 9390, H.J.'s work clothes would not have been contaminated with significant asbestos dust that contaminated Geraldine when H.J. brought them home for laundering, nor could significant asbestos dust have escaped from the Shipyard to travel to the Perkins home.[4]

The Government argues that it cannot be liable for failing to follow any asbestos control rule during the time period relevant to this case because none of these policies created mandatory obligations. Specifically, the Government presented evidence that because P-5100 was issued by the Naval Material Command, which is outside the Shipyard's chain of command, it was not binding on the Shipyard. With respect to 5100.26, the Government argues that although it was issued by a body within the Shipyard's chain of command (the Naval Ship Systems Command),

[3] In this order, the Court refers to the exhibits by number as admitted during trial. *See* Dkt. No. 129.

[4] P-5100, 5100.26, and Chapter 9390 do not set out precautions that would allow the Navy to prevent the release of *all* asbestos fibers, but it is Plaintiff's position that if these policies had been complied with, the release of asbestos fibers would have been "substantially and significantly reduced." Dkt. No. 66 at 36.

its language preserves discretion and does not create mandatory obligations on the Government that could give rise to tort liability if not followed.

The Government's arguments as to the discretionary nature of P-5100 and 5100.26 are supported by evidence submitted at trial. Roger Beckett, who was an industrial hygienist at the Shipyard from 1968 until 1998, testified that P-5100 was issued by a body outside the Shipyard's chain of command, such that the document was not binding on the Shipyard. Dkt. No. 119 at 55–56, 116–17. The Court relies on Mr. Beckett's testimony to find that P-5100 was not a mandatory directive, such that the Navy's failure to follow its provisions constitutes discretionary conduct.

Mr. Beckett testified that 5100.26, on the other hand, was implemented within the chain of command, such that it *was* binding on the Shipyard. Dkt. No. 119 at 118–19, 152–55. The Court relies on this testimony to find that 5100.26 constitutes a policy binding on the Shipyard, to the extent that its provisions are phrased with mandatory language, although not all of its provisions are mandatory. For example, 5100.26 provides that "[i]nsulation workers should be provided with clean coveralls at the beginning of each shift or as often as needed" and that clean coveralls "will" be provided at the start of each shift "[i]n removal operations that involve dusty work[.]" Ex. 99 at 4, 7. Neither of these sections of 5100.26 are mandatory requirements applicable to the facts of this case: the use of "should" with respect to insulation workers implies discretion, as does the directive to provide coveralls when removal operations involve dusty work. The wording of these provisions indicates that the relevant parts of 5100.26 required discretion in order to be applied.

Chapter 9390 appears to be mandatory and, in some instances, specific. *See* Ex. 103. This document, which was effective as of July 1972, reiterates many of the procedures outlined in P-5100. For example, Chapter 9390 requires that "[d]iscarded and scrap asbestos material shall be immediately placed in plastic bags which are then to be sealed for removal and disposal." *Id.* at 3. It also requires that workers performing rip-out "shall be supplied clean overalls or disposable

coveralls for each work shift[,]" and that the areas where asbestos-containing products are removed "shall be confined by means of curtains, portable partitions, etc., to prevent excessive contamination of other areas." *Id.* Chapter 9390 was issued by Naval Ships Systems Command, which is within the Shipyard's chain of command and is the same body that issued 5100.26. But unlike 5100.26, Chapter 9390 uses some mandatory language to describe asbestos-handling procedures.[5] *See* Ex. 103. Because this document converts the advisory guidance found in P-5100 into some mandatory and specific rules, and the Government did not show that Chapter 9390 is not binding on the Shipyard, the Government has failed to show that the first step of the discretionary function exception has been satisfied with respect to the mandatory and specific provisions of Chapter 9390. Accordingly, the Court's inquiry ends here, and the Government's motion to dismiss for lack of jurisdiction must be denied.

The Court therefore proceeds to enter the following findings of fact and conclusions of law in adjudicating the merits of Plaintiff's claims.

B. FINDINGS OF FACT

A. H.J. Served In the United States Navy from 1959 to 1975.

1. H.J. enlisted in the United States Navy in February 1959. Ex. 12 at 372. He served in the United States Navy from February 1959 through October 31, 1975. *Id.* at 124.

2. From 1962 until 1968, H.J. held the rating of Machinist's Mate Second Class ("MM2"). Ex. 12 at 265, 319. On March 16, 1968, H.J. achieved the rating of Machinist's Mate First Class ("MM1") and retired from the United States Navy with that same rating in 1975. *Id.* at 319, 374; Dkt. No. 89 at 2.

[5] Some provisions of Chapter 9390 are discretionary, however. For example, Chapter 9390 instructs that "[p]ortable mechanical exhaust ventilation should be used to remove airborne dust. Air should be exhausted into bags or suitable devices to catch dust." Ex. 103 at 3. Other parts of Chapter 9390 apply only under certain circumstances, which suggests that an exercise of discretion is needed. *See, e.g.*, *id*. (instructing that certain procedures be undertaken "in a manner that will minimize airborne dust" or only "[w]hen working in confined spaces").

3. A Navy Machinist's Mate is a sailor trained to operate and maintain mechanical equipment aboard U.S. Navy ships. Navy Machinist's Mates also have collateral duties. Dkt. No. 123 at 87–88.

4. A Machinist's Mate Third Class ("MM3") is the entry-level petty officer rating, considered a journeyman who is transitioning to a supervisor. Dkt. No. 123 at 88. An MM2 is the next step up from a third-class petty officer, and has greater expertise and increasing supervisory responsibilities, with more of a paperwork burden. *Id.* at 89.

5. An MM1 is considered a supervisor or manager who is evaluated on their ability to get work done through others, as opposed to doing the work themselves. Dkt. No. 123 at 90. As an MM1, therefore, H.J. would not have been expected to have direct, hands-on work with asbestos-containing material. *Id.* at 113–14.

6. From 1963 to 1968, when H.J. was an MM2, he was stationed at Naval bases in Portsmouth, Virginia, and Charleston, South Carolina. During these years, H.J. was attached to six different ships. Ex. 12 at 323–29.

7. H.J. was transferred to the Naval Inactive Ship Maintenance Facility ("NISMF") located at the Shipyard in Bremerton in July 1968, as an MM1. He reported to NISMF on September 3, 1968, and served there until June 14, 1970. Ex. 12 at 329.

8. Ships were sent to the NISMF for decommission, deactivation, and mothballing, to be available for activation if needed for a national emergency. Dkt. No. 123 at 92–93.

9. During the relevant timeframe, H.J. was assigned to the NISMF from March 1970 to June 1970. During those months, H.J. had various assignments, including steam heating system maintenance, and he stood junior officer of the deck watches and was the duty section leader. Dkt. No. 123 at 91, Ex. 12 at 351.

10. Minimal work occurs at the NISMF. Upon arrival, ships are put under a dehumidification system and the power is cut. Dkt. No. 123 at 92–93. A couple of ships at the NISMF serve as barracks and a command ship serves as an office and repair space. *Id.* at 93.

11. Navy sailors assigned to the NISMF were primarily responsible for custody of the ships and for performing the final ship inactivation. Dkt. No. 123 at 114. This fact was reinforced by testimony from Plaintiff's witness David Jensen, who worked as a pipefitter at the Shipyard from 1971 to 1982, and continued to work at the Shipyard in management positions until his retirement in 2010. Dkt. No. 120 at 4–5. Mr. Jensen testified that a sailor stationed at NISMF generally would not remove parts from the ships housed there; rather, if a pipefitter needed a part, the pipefitter would go to the NISMF to remove the part himself. *Id.* at 37–38.

12. There is no evidence that any major repairs or maintenance were performed at NISMF between March 1970 and June 1970. Dkt. No. 123 at 93–94.

13. As an MM1 at the NISMF, H.J. would have served as a first-line supervisor instructing third- and second-class petty officers to complete their work assignments; he would not have performed hands-on equipment maintenance and repair work himself. Moreover, there is no evidence that H.J. (or anyone else) would have performed insulation rip-out between March 1970 and June 1970 at the NISMF. Dkt. No. 120 at 36; Dkt. No. 123 at 93–94, 114.

14. Following his assignment to the NISMF, H.J. was deployed to Vietnam, Japan, and the Philippines to support the United States' fleet operations in southeast Asia. While deployed, H.J. was assigned to the *USS Sacramento*, reporting to the ship at Subic Bay, Philippines in May 1971. Dkt. No. 123 at 95–96; Ex. 12 at 329–30.

15. The *USS Sacramento* was the lead ship in the AOE class. Dkt. No. 123 at 96–97. The AOE class was a replenishment oiler and cargo ship; such vessels brought fuel, ammunition,

and supplies to deployed ships (*e.g.*, aircraft carriers, destroyers, frigates, etc. that were deployed). *Id.* at 96–97, 105.

16. H.J. joined the *USS Sacramento* while she was conducting operations in the Gulf of Tonkin off the coast of Vietnam. Dkt. No. 123 at 114–15. As an MM1, he would have continued to serve as a first-line supervisor, instructing third- and second-class petty officers to complete work while removing himself from hands-on involvement with equipment maintenance and repair. *Id.* at 115.

17. During his June to December 1971 evaluation period, H.J. remained attached to the *USS Sacramento*, assigned to the forward engine room for maintenance and supervisory duties. Ex. 12 at 348. The *USS Sacramento* returned to the Shipyard for a "Regular Overhaul" from December 1, 1971, until June 9, 1972. Dkt. No. 123 at 121, Dkt. No. 89 at 3.

18. "Regular Overhaul" activities, such as those performed at the Shipyard on the *USS Sacramento* in the period between December 1, 1971 and June 9, 1972, could have involved the creation of asbestos-containing dust on board the ship when certain types of work were performed. Dkt. No. 89 at 3.

19. Typically, at the beginning of a shipyard overhaul or repair period, insulation must be removed from the piping systems that require replacement to facilitate repairs to other systems. Dkt. No. 89 at 3.

20. As an MM1, H.J. would not have performed the hands-on labor of ripping out insulation during the *USS Sacramento*'s regular overhaul. Mr. Jensen (the former Shipyard pipefitter) testified that an MM1 did not do rip-out at the Shipyard. Dkt. No. 120 at 36.

21. In December 1971 and January 1972, H.J. was assigned to the *USS Sacramento*'s Engineering Department as Training Officer/Administrative Assistant (Ex. 12 at 346), an assignment that entailed mostly classroom instruction and/or paperwork and did not involve hands-

on work with asbestos-containing material. Dkt. No. 123 at 99–101. Following this training/administrative assignment, on January 22, 1972, H.J. was transferred to San Diego until April 21, 1972, for several instructional school programs. Dkt. No. 123 at 101, Ex. 12 at 279.

22. During the remainder of the *USS Sacramento*'s overhaul period (April 22, 1972, to June 9, 1972), H.J.'s assignments would not have necessarily involved work with asbestos-containing material. H.J. was assigned to the petroleum, oil, and lubricants ("POL") division, which was responsible for the onload, quality assurance, and transfer, of cargo fuel. Dkt. No. 123 at 101–02, Ex. at 346. Most POL systems did not use asbestos insulation, so H.J.'s work with or near asbestos would have been extremely limited during this period. *Id*. at 103. Further, although H.J.'s work in the POL division involved collateral duties with the Nuclear, Biological and Chemical Warfare system, this assignment did not involve asbestos-containing material. *Id*. at 102–05.

23. Upon completion of the *USS Sacramento*'s regular overhaul period, H.J. took some scheduled leave. Ex. 12 at 274. H.J. was still assigned to the POL division, so his work between June 1972 and August 1972 would have entailed responsibilities associated with loading cargo fuel aboard the ship. Dkt. No. 123 at 105. During this period, the *USS Sacramento* made stops along the coast of Washington and California to replenish supplies and fuel before its next deployment to Vietnam, which occurred on August 11, 1972. *Id*.

24. On August 11, 1972, H.J. was "absent of sailing," which means that he was absent without leave, and the *USS Sacramento* departed without him. Dkt. No. 123 at 105–06, Ex. 12 at 289.

25. On August 12, 1972, H.J. was hospitalized and then placed on permanent limited duty, due to health issues unrelated to asbestos exposure. Ex. 12 at 230. H.J.'s work aboard ships ended upon placement on limited duty, and he would not have been expected to work with or near

asbestos-containing material after August 12, 1972. Dkt. No. 123 at 106–09. H.J. was assigned to the bowling alley, the hobby shop, and barracks, and he received treatment for his physical and mental ailments into 1974. *Id.* at 106–08; Ex. 12 at 344-45.

26. H.J. was transferred to Corpus Christi, Texas, in March 1974. Dkt. No. 123 at 109, Ex. 12 at 281. His family went with him. Dkt. No. 121 at 108.

B. Geraldine Lived in Bremerton During the Relevant Period.

27. H.J. and Geraldine were married on December 25, 1963. Dkt. No. 89 at 2. They remained married until H.J. died in 1979. Dkt. No. 121 at 124, 126.

28. Between 1963 and 1974, Geraldine resided with her husband near his duty stations. From 1963 to 1967, Geraldine lived in Portsmouth, Virginia. Dkt. No. 120 at 58–59. From 1967 to 1968 or 1969, Geraldine lived in Charleston, South Carolina. *Id*. at 59–60. Geraldine moved to Bremerton at some point in 1968 or 1969 after H.J.'s transfer to the NISMF. *Id*. at 60–61, Dkt. No. 121 at 100.

29. Between 1969 and 1974, Geraldine resided at 3733 D Street in Bremerton, Washington. Dkt. No. 89 at 5.

30. One of Geraldine and H.J.'s daughters, Lisa Perkins, testified that she witnessed Geraldine laundering H.J.'s clothes during the relevant time period that Plaintiff alleges that Geraldine was para-occupationally exposed to asbestos (March 1970 to August 1972). Dkt. No. 120 at 46–49. Lisa testified that she observed that H.J.'s clothes were "dusty" and "dingy," and Geraldine would shake and separate the clothes before washing. *Id*. Lisa testified that she remembered her mother washing H.J.'s clothes even before the family moved to Bremerton when she was four years old. *Id.* at 64.

31. The scientific evidence shows that inhalation of asbestos dust, at sufficient dose and duration, and depending on fiber type, may increase the risk of developing malignant mesothelioma for some individuals. Dkt. No. 124 at 30, 38–39.

C. The Navy Considered and Implemented Asbestos Control Procedures in the 1960s and 1970s.

32. In the 1960s and 1970s, the Shipyard was a naval facility that conducted construction and repair activities for U.S. Navy vessels. Dkt. No. 119 at 35. During this period, the Shipyard was a complex, full-service industrial facility. Numerous trades operated at the Shipyard, including for example, sheet metal shop, pipe covering shop, ship fitter shops, welder shops, forge, foundry, boilermakers, and one of the largest machine shops on the West Coast. *Id.* at 95–96. The Shipyard had approximately 10,000 employees at any given time. Dkt. No. 119 at 36.

33. At trial, Mr. Beckett testified about the Navy's industrial hygiene program at the Shipyard, the Navy's understanding of asbestos risks, and the Shipyard's asbestos control practices during the relevant period. Mr. Beckett began working at the Shipyard as a chemist in 1963, then as an industrial hygienist from roughly 1965 until 1972. Dkt. No. 119 at 34–35. In 1972, Mr. Beckett was promoted to supervisor in the Shipyard's Industrial Hygiene Division. *Id.* at 35. Shortly thereafter, Mr. Beckett was transferred to the Naval Regional Medical Center, where he was responsible for all industrial hygiene activities for the Navy in the Pacific Northwest until his retirement in 1998. *Id.* at 35–36, 132.

34. The Shipyard Commander was "responsible" for occupational health at the Shipyard. Dkt. No. 119 at 36. The Shipyard's industrial hygienists were responsible for recognizing, evaluating, and recommending controls for occupational health hazards other than

radiation. *Id.* at 35–36. The Shipyard's industrial hygiene division had no authority over Shipyard personnel. *Id.* at 103–05.

35. The United States Navy was aware of risks associated with asbestos exposure before March 1970. Dkt. No. 89 at 6.

36. In the 1960s and 1970s, asbestos dust was one of numerous occupational health hazards that the Shipyard monitored. Dkt. No. 119 at 37–39. Other hazards included, for example, lead, painting, abrasive blasting, chemical cleaning, fiberglass, heat stress, beryllium, ionizing radiation, welding fumes, carbon monoxide, noise, acids, organic degreasing agents, electroplating processes, and fiberglass dust. *Id.* at 37–39, 96–97, 123–24. The Navy Bureau of Medicine ("BUMED") distributed quarterly reports disclosing occupational concerns encountered at U.S. Navy shipyards to the various Navy components. *Id.* at 41–42; Ex. 89 (BUMED List of Occupational Health Hazards, Release No. 43 (June 22, 1965)).

37. Prior to 1975, certain shipyard workers who participated in the repair or overhaul of U.S. Navy ships would typically remove, install, and repair thermal and anti-sweat insulation and lagging installed on piping systems and equipment throughout ships. Dkt. No. 89 at 3. Although various types of thermal and anti-sweat insulants suitable for use with shipboard piping systems contained asbestos, other types did not. *See, e.g.*, Dkt. No. 123 at 149.

38. The existence of asbestos on a ship or at a shipyard is not indicative of the potential for inhalation of asbestos dust or environmental emissions. Dkt. No. 123 at 170. Asbestos fibers can only be emitted and potentially inhaled if "liberated" (*i.e.*, airborne). *Id.*

39. In the 1960s, asbestos was known to cause asbestosis. Dkt. No. 119 at 42. Asbestosis is a fibrotic change in the lung (*i.e.*, scar tissue) caused by inhalation of asbestos. *Id.* The scientific literature at that time indicated that asbestosis occurred in insulation workers regularly exposed to asbestos. Ex. 39 at 21, Ex. 97 at 9 (Shipyard March 1970 Study).

40. In the 1960s and 1970s, although mesothelioma had been identified as a risk, health care experts did not consider it a significant problem; rather, asbestosis was the predominant concern in those days. Dkt. No. 119 at 98.

41. In the 1960s and early 1970s, Shipyard officials understood that only personnel who worked directly with industrial dust could have enough exposure to pose a significant health threat. *See, e.g.*, Dkt. No. 119 at 98–99, 145–46. Such personnel at the Shipyard were pipe coverers, insulators, and, to some extent, boilermakers—*i.e.*, workers "ripping out" or removing old asbestos insulation, fabricating new asbestos insulation, and installing new asbestos insulation. *Id*. at 98–99, Ex. 39 at 21, Ex. 97 at 10–13.

42. In the early 1970s, Shipyard industrial hygienists had to manage and advise on multiple major concerns, such as lead exposure and the many health issues associated with servicing nuclear powered ships. Dkt. No. 119 at 9.

43. Chapter 9390 of the Naval Ships Technical Manual required certain procedures for asbestos handling. Ex. 103. For example, Chapter 9390 required that "[d]iscarded and scrap asbestos material shall be immediately placed in plastic bags which are then to be sealed for removal and disposal." *Id.* at 3. It also required that workers performing rip-out "shall be supplied clean overalls or disposable coveralls for each work shift[,]" and that the areas where asbestos-containing products are removed "shall be confined by means of curtains, portable partitions, etc., to prevent excessive contamination of other areas." *Id.*

44. Neighborhood asbestos exposure from shipyard operations was not a concern at the Shipyard. Mr. Beckett testified that industrial hygienists believed the Shipyard was, for the most part, successfully controlling asbestos workplace exposure to employees at risk from asbestos exposure (*i.e.*, shipyard workers who handled asbestos-containing material eight hours/day, forty hours/week). Dkt. No. 119 at 113–14. Therefore, Shipyard industrial hygienists believed that if

they could control the work environment inside the Shipyard, asbestos exposure for individuals "outside the gate" would "not be a problem" particularly because there is "a tremendous dilution" for any fiber that becomes airborne in the shipyard. *Id.*

D. Geraldine's Risk for Para-Occupational Exposure

45. Para-occupational asbestos exposure may occur when workers who handle large amounts of asbestos brings asbestos fibers home on their clothes, and then the clothes are purportedly shaken out in the home. Dkt. No. 124 at 59–60.

46. The published scientific literature regarding para-occupational exposure typically involves exposure through contact with insulators, or other types of workers regularly exposed to asbestos. Dkt. No. 124 at 48–49, 60–61, 139–40, 148.

47. H.J. was not an insulator, and he would not have performed the work of an insulator in the 1970s. Dkt. No. 123 at 169, Dkt. No. 124 at 45.

48. H.J. was an MM1 during all time periods relevant to this case, and as an MM1, he would not have performed insulation rip-out or been working with or near asbestos-containing products when he was present at the Shipyard after March 1970. Dkt. No. 123 at 91–109, Dkt. No. 124 at 45–47.

49. That H.J. arrived at home after work wearing dusty clothes is not necessarily indicative of his workplace asbestos exposure. Most dirty, dusty environments do not contain asbestos dust; rather, it is typically nuisance dust, and the content is based on the environment. Dkt. No. 124 at 64–65. For example, shipyards are quite dusty due to road dust. *Id*.

50. Plaintiff's witness Mr. Jensen (a former Shipyard pipefitter) testified that he observed dust on ships, but did not know what was in the dust. Dkt. No. 120 at 39–40.

51. The occupational environment of an MM1 assigned to a Navy shipyard would likely have contained nuisance dust which did not contain asbestos fibers because an MM1 would typically not be working near an asbestos release point. Dkt. No. 64–65.

52. Respirable asbestos fibers are not visible to the naked eye. Dkt. No. 124 at 65.

53. Dennis Paustenbach, Ph.D., C.I.H., has over 35 years of experience in risk assessment, environmental engineering, toxicology, and occupational health. Dkt. No. 124 at 8–18. Dr. Paustenbach testified that scientific studies show that asbestos fibers that stick to clothing do not easily release from the fabric because electrostatic force prevents easy release. *Id.* at 62–64.

54. It is undisputed that potential take-home exposures to asbestos are significantly lower than the primary exposure (*i.e.*, the worker's exposure). Dkt. No. 122 at 148–49. Dr. Paustenbach presented results from a simulation he oversaw to determine quantitatively the amount of dust released from clothes, using mannequins to model potential airborne concentrations a spouse may encounter in the home. The data, which was published, revealed that the para-occupational exposure from shaking out clothes is about one percent of the airborne concentration of the exposure worker. Dkt. No. 124 at 66–67.

57. Dr. Paustenbach has studied bystander asbestos exposure and published his findings, which enables "one to predict the concentrations with distance from the point source inside a building." Dkt. No. 124 at 66. Dr. Paustenbach's study defined a "bystander" as an individual who is between one to 30 feet away from a person working directly with an asbestos-containing product. *Id*. at 65–66. This study revealed that at five to ten feet from the point source, the asbestos concentration is down to 35 percent of the point source; at 10–30 feet from the point source, the concentration is down to 10 percent; at more than 30 feet away from the point source,

the concentration is down to 1 percent; and beyond 50 or 60 feet, the asbestos concentration is "usually not measurable[.]" *Id.* at 66.

58. Given H.J.'s rank and job assignments while serving at NISMF and attached to the *USS Sacramento*, he would have likely received "extremely low or de minimis" bystander exposure. Dkt. No. 124 at 150.

59. Plaintiff's retained epidemiologist Nicholas Heyer, Ph.D., opined that Geraldine was exposed to asbestos para-occupationally, but failed to consider H.J.'s actual assignments in reaching that opinion. Dkt. No. 122 at 147–48. Instead, Dr. Heyer incorrectly assumed H.J. spent 155 days on the *USS Sacramento* performing work as a "machinist," and he further speculated that H.J. was exposed to "high levels of asbestos dusts," and that H.J. was not provided coveralls or laundry service. *Id.* at 132–33, 159.

60. Plaintiff's retained industrial hygienist Christopher DePasquale, M.P.H., opined that Geraldine was exposed to asbestos by "coming into contact with her husband's asbestos contaminated clothing, from home contamination, during the handling of [H.J.'s] asbestos contaminated clothing during laundry activities," but he failed to consider H.J.'s actual assignments or the time he was away from the Shipyard. Dkt. No. 120 at 146–48. Rather, Mr. DePasquale assumed para-occupational exposure because H.J. "most likely … had hands-on work" with asbestos products, but regardless would have had asbestos exposure as a bystander between 1970 and 1974. *Id.* at 148–49.

61. Plaintiff's retained pathologist, Richard Kradin, M.D., opined that Geraldine would have been exposed to "above background levels of asbestos capable of causing mesothelioma by the laundering of her husband's work clothes and direct contact with her husband and fibers that were deposited within the household and within the family car." Dkt. No. 122 at 60. Apparently, this opinion is based on Dr. Kradin's assumption that H.J. was exposed routinely to asbestos at

levels substantially above normal background. *Id.* at 59. Dr. Kradin failed to consider any specific information regarding H.J.'s potential exposure. Indeed, Dr. Kradin did not know the difference between an MM1 and an MM2 (*id.* at 77), failed to review H.J.'s service records (*id.* at 76), and failed to estimate the number of potential days Geraldine could have been exposed to asbestos (*id.*). Rather, Dr. Kradin assumed that Geraldine was exposed to asbestos para-occupationally because (i) Lisa's 2021 declaration recalled her father coming home from work 50 years ago with dusty clothes, and (ii) from prior testimony of former Shipyard workers who did not know or ever observe H.J. *Id.* at 75–76, 78, 99–100.

62. Dr. Paustenbach estimated Geraldine's potential asbestos exposure through handling her husband's work clothes between March 1970 and August 1972, assuming she washed his clothes every four days during that period and a 1 percent release factor. Dkt. No. 124 at 68–69. Even using these inflated estimates, Geraldine's potential para-occupational exposure would have been 0.000004 fiber cc years, which is approximately background asbestos level for most American cities in the 1970s. *Id*. In short, Geraldine would not have been exposed to asbestos concentrations through handling her husband's work clothes that increased her risk of developing mesothelioma. *Id.* at 69–70.

63. Geraldine had a much greater opportunity for para-occupational asbestos exposure prior to March 1970. Geraldine married H.J. in December 1963, and they lived together in Charleston, South Carolina and Portsmouth, Virginia. From 1963 through March 1968, H.J. was an MM2 assigned to several ships and his job duties would have involved the "removal, manipulation, and reinstallation of asbestos-containing materials." Dkt. No. 123 at 110–16; *see also* Dkt. No. 122 at 195.

E. Geraldine's Risk for Environmental Exposure.

64. In the 1970s, there was no reason to believe that individuals who lived near shipyards were at risk of developing mesothelioma from environmental exposure. Dkt. No. 124 at 28. Before March 1974, there were no studies that investigated the rates of non-occupational mesothelioma in individuals living in the vicinity of a shipyard in the United States (*i.e.*, neighborhood shipyard exposure). Dkt. No. 122 at 186, Dkt. No. 124 at 28–29. The scientific literature that existed regarding potential neighborhood asbestos exposure often involved crocidolite, concerned factory emissions with little or no pollution control devices, and/or raw asbestos exhausted through stacks. Dkt. No. 124 at 28–29, 73–74. Therefore, the type of asbestos used, the point source, and the controls are all distinguishable from asbestos use and handling at U.S. naval shipyards. *Id.*; *see also* Dkt. No. 122 at 205–06.

65. Studies have shown that fiber concentrations drop very rapidly outdoors, especially if it is a ground-level release. For example, Dr. Paustenbach found that outdoors, at 100 feet from a point source, fiber drift results in concentrations that were 200 times lower than at the point source. Dkt. No. 124 at 80–81. The farther away from the point source, the lower the concentration. *Id*. at 81. Models commonly estimate that at one to two miles from the point source, the fiber concentration would be only one ten-thousandth of the level at the point source. *Id*.

66. Geraldine's home was roughly 1.5 miles from a potential point source—a dry dock at the Shipyard. Therefore, any asbestos concentration that may have been released from that point would be "immeasurably low" at her home. Dkt. No. 124 at 81.

67. There are several factors that influence particle movement through the air.

(1) Agglomeration occurs, which is when tiny particles stick together due to electrostatic forces to form larger particles. Dkt. No. 124 at 81–82.

(2) Sedimentation or deposition occurs because the particles enlarge to the point that they drop out of the air due to mass. *Id.* at 82.

(3) Adhesion occurs because the particles hit a wall or plant (typically, the particles do not bounce, but stick). *Id*.

(4) Wet deposition occurs when it rains because the particles adhere to the rain drops. *Id*.

(5) Turbulence, which is the whirling of wind, is important here because the Shipyard was a "ground level" release but Geraldine's home was roughly nine stories above the shipyard. *Id*. Turbulence accelerates the first four factors described and increases the surface area that any fugitive fibers must travel, thereby lessening fiber transport potential. *Id.* at 82–83.

68. Other factors that influence the ability of asbestos fibers to drift from a shipyard into the community are the existence of a buffer zone and volume and type of asbestos from the release point. Dkt. No. 124 at 30, 75.

69. Plaintiff's retained meteorologist and climatologist Nicholas Bond, Ph.D., testified that the wind blew in the direction of Geraldine's home at times between 1970 and 1974. Dkt. No. 121 at 51–61. Dr. Bond's analysis was limited to the direction of the "prevailing" winds. *Id.* at 50 (clarifying that Plaintiff requested that he "focus on the wind patterns and to establish if and how often the residence was downstream of the shipyard").

70. Dr. Bond is not an expert in fate and transport, nor did he perform a chemical fate and transport analysis of the location and state of atmospheric constituent in this case. Dkt. No. 121 at 50. Rather, he merely focused on the wind patterns. *Id*.

71. Dr. Bond assumed that asbestos could float from the shipyard to Geraldine's home. However, Dr. Bond's assumptions were apparently based on wind speed and his anecdotal

knowledge regarding smoke from fires, not regarding the chemical nature of asbestos specifically. Dkt. No. 121 at 46–48.

72. Indeed, Dr. Bond did not address agglomeration, adhesion, or wind turbulence. Dr. Bond failed to consider the elevation of Geraldine's home, which was about nine stories above the Shipyard. Dr. Bond did not address the point source or the buffer zone around the Shipyard that Dr. Paustenbach described. Dkt. No. 124 at 75, 84–87. Dr. Bond compared forest fire smoke, which releases massive quantities of particles, to asbestos fibers at the Shipyard, where any release beyond the shipyard perimeter is speculative, but undoubtedly far lower. *Id.* at 84–85. In short, Dr. Bond "made it sound like if the wind is blowing that way, fibers are going to get there[,]" but he was "oblivious to everything that has to do with fiber transport." *Id.* at 84.

73. Dr. Heyer testified that, because "all asbestos fibers" are "very small … they can move very easily with the air and can travel long distances." Dkt. No. 122 at 130. Dr. Heyer opined that fibers would drift "outside of the ship" which "would increase the environmental exposure of people living within the vicinity of the shipyard." *Id.* at 130–31.

74. Dr. Heyer did not address any of the factors that scientists consider in assessing the fate and transport of asbestos fibers, such as agglomeration, adhesion, or wind turbulence. Further, he did not consider the point source (asbestos levels, type of release), physical buffer around the Shipyard, elevation, or the climate (moisture, temperature). *See, e.g.*, Dkt. No. 124 at 81–83, 85, 87–88 (Dr. Paustenbach's testimony on those topics).

75. Dr. Heyer did not quantify Geraldine's alleged environmental exposure in Bremerton. Dkt. No. 122 at 151. Rather, Dr. Heyer's opinion that Geraldine's mesothelioma risk was increased because she lived in Bremerton was based on epidemiological studies. *Id*. The only study Dr. Heyer identified that addressed U.S. Navy shipyards and ambient asbestos exposure was the 1986 Kilburn, *et al.* study. Kilburn *et al.* concluded that families residing near Long Beach

Shipyard in Los Angeles were at greater risk of respiratory problems from smog, and expressly stated that asbestos did not explain the increased pulmonary problems. *Id.* at 151–54.

76. Mr. DePasquale opined that Geraldine "would have been exposed environmentally from the release of asbestos at Puget Sound Naval Shipyard, and when winds from the shipyard were blowing in the direction of their home, generally out of the east, it would have additionally resulted in exposures to asbestos at her home." Dkt. No. 120 at 132. His opinion is based on (1) the vague assertion that asbestos fibers drift when released into the air (*id.* at 93); (2) epidemiology studies that do not address U.S. shipyards (*id.* at 156–67); and (3) Dr. Bond's report that the wind blew, at times, in the direction of Geraldine's home (*id.* at 132–33). Mr. DePasquale did not consider any of the factors that scientists consider in assessing the fate and transport of asbestos fibers, such as agglomeration, adhesion, and wind turbulence. Further, he did not consider the point source (asbestos levels, type of release), physical buffer around the Shipyard, elevation, or the climate (moisture, temperature). *See generally id.* at 134.

77. Dr. Kradin opined that the alleged environmental exposures Geraldine received between March 1970 and March 1974 "were [] a substantial contributing factor in causing her malignant mesothelioma[.]" Dkt. No. 122 at 63.

78. Dr. Kradin's opinion relied on statements from Dr. Bond ("the meteorologist") and Dr. Heyer ("the epidemiologist") for his belief that living in proximity to the Shipyard would have exposed Geraldine to "ambient levels of asbestos that were substantially higher than normally seen." Dkt. No. 122 at 60, 88. Dr. Kradin did not perform any quantitative estimates of Geraldine's alleged environmental exposure, nor did he have any idea of Geraldine's potential asbestos level in Bremerton between March 1970 and March 1974. *Id.* at 89. Rather, he assumed that Geraldine "would have been at increased risk because the wind was blowing at least on occasion in her direction." *Id*.

79. Dr. Kradin identified only one study to support his opinion that the alleged environmental asbestos exposures Geraldine received between March 1970 and March 1974 were a substantial contributing factor in causing her malignant mesothelioma. This study, Tagnon *et al*., involved workplace exposure at a shipyard, not environmental exposure to shipyard neighbors. Dkt. No. 122 at 89–92. Indeed, Dr. Kradin acknowledged that he knew of no studies associating environmental asbestos exposures from naval shipyards with mesothelioma. *Id.* at 92.

80. None of Plaintiff's experts estimated Geraldine's potential environmental exposures from the Shipyard. In contrast, Dr. Paustenbach did calculate potential environmental exposure, using numbers from Carl Mangold's 1982 study and assuming that the fibers were asbestos and came from the Shipyard (which was most likely not the case, as Mr. Mangold acknowledged in his study (Ex. 41 at 27)). Using this conservative data, Dr. Paustenbach estimated that Geraldine's potential asbestos exposure from the Shipyard was 0.00018 fibers per cc years, which is thousands of folds below the level of crocidolite (*i.e*., most dangerous type of asbestos and not utilized at the Shipyard) believed to cause mesothelioma. Dkt. No. 124 at 89–90; *see also* Dkt. No. 55-2 at 95–96 (explaining the estimate calculation)). Therefore, it is implausible that residing near the Shipyard for four years could have increased Geraldine's risk of developing mesothelioma. *Id*.

81. Dr. Heyer's opinion that the Shipyard failed to follow Navy policies, and this failure increased Geraldine's chances of developing mesothelioma, is based on discretionary provisions in P-5100, 5100.26, and/or Chapter 9390. For example, Dr. Heyer confirmed that his opinion was based on policy provisions advising that "portable mechanical exhaust ventilation should be used to remove airborne dust and exhausted into bags or suitable devices," local shipyard commanders may apply more stringent restrictions, "[a]sbestos operations should be segregated from other operations," industrial hygienists "should make frequent inspection of the Fabrication and

Installation sites" to check airborne contamination levels, and insulation should not be dry swept. Dkt. No. 122 at 117–21.

82. Dr. Kradin's opinion that exposures from the Shipyard caused Geraldine's alleged mesothelioma is based on his belief that all asbestos exposures above background contributed to Geraldine's disease: "[T]he cumulative dose is what matters with respect to the risk for developing the disease. So all exposures above background would have to be counted." Dkt. No. 122 at 60.

F. Geraldine's Additional Medical Background

83. In approximately 2010, Geraldine underwent therapeutic radiation treatment for breast cancer. Ex. 607 at 42.

84. On February 21, 2020, Geraldine was diagnosed with pleural mesothelioma. Ex. 607 at 32–33.

IV. CONCLUSIONS OF LAW

A. Legal Standards

1. Under the FTCA, the law of the state where the tort allegedly occurred controls issues of liability. *Pacheco v. United States*, 21 F.4th 1183, 1187 (9th Cir. 2022).

2. To prevail on a negligence claim under Washington law, a plaintiff "must show (1) the existence of a duty to the plaintiff, (2) a breach of that duty, (3) a resulting injury, and (4) the breach as the proximate cause of the injury." *Turner v. Wash. State Dep't of Soc. & Health Servs.*, 493 P.3d 117, 124 (Wash. 2021) (quoting *Ehrhart v. King County*, 460 P.3d 612, 617 (Wash. 2020)).

3. Under Washington law, "the existence of a fact or facts cannot rest in guess, speculation, or conjecture." *Gardner v. Seymour*, 180 P.2d 564, 569 (Wash. 1947) (quoting *Home Ins. Co. v. N. Pac. R. Co.*, 150 P.2d 507, 509 (Wash. 1943)); *see also British Airways Bd. v. Boeing*

Co., 585 F.2d 946, 952 (9th Cir. 1978) (explaining that a jury is permitted only to draw reasonable inferences and "may not resort to speculation"), *cert. denied*, 440 U.S. 981 (1979).

4. Washington law also provides that "where, on the evidence, under one theory of the case plaintiff would be liable and under another theory not liable, plaintiffs' burden of proof has not been met." *Baker v. United States*, 417 F. Supp. 471, 487 (W.D. Wash. 1975). Therefore, proof of negligence and proximate cause must be based on "[r]easonable probability, not mere possibility[.]" *Id.*

5. Under the FTCA, the United States cannot be strictly liable for asbestos exposure. *See Laird v. Nelms*, 406 U.S. 797, 799–802 (1972). Further, under the FTCA, the United States can be liable only to the extent it has waived its sovereign immunity. *See, e.g.*, *Esquivel v. United States*, 21 F.4th 565, 572–73 (9th Cir. 2021). Therefore, it is not enough for Plaintiff to show that Geraldine was exposed to asbestos from the Shipyard. Rather, Plaintiff must establish that Geraldine was exposed to asbestos that resulted from a federal employee's negligent violation of a mandatory and specific directive. In other words, to be actionable in this FTCA case, Plaintiff must establish Geraldine was sufficiently exposed to asbestos from negligent, non-discretionary government conduct shown to be the proximate cause of her mesothelioma.

6. The "peculiar nature of asbestos products and the development of disease due to exposure to such products" creates difficulties in establishing the precise party or exposures that caused the harm. *Lockwood v. AC & S, Inc.*, 744 P.2d 605, 613 (Wash. 1987). To prove causation in an asbestos case, therefore, Washington courts typically apply the "substantial factor" test to determine proximate cause. *See Jack v. Borg-Warner Morse Tec, LLC*, C17-0537JLR, 2018 WL 4409800, at *12 (W.D. Wash. Sept. 17, 2018) (citing *Mavroudis v. Pittsburg-Corning Corp.*, 935 P.2d 684, 687–89 (Wash. Ct. App. 1997)), *aff'd sub nom. Jack v. DCo, LLC*, 837 F. App'x 421 (9th Cir. 2021).

7. In asbestos cases, to satisfy the substantial factor test, the plaintiff must demonstrate "a high enough level of exposure that an inference that the asbestos was a substantial factor in the injury is more than conjectural." *Stephens v. Union Pac. R.R. Co.*, 935 F.3d 852, 855–56 (9th Cir. 2019) (quoting *McIndoe v. Huntington Ingalls Inc.*, 817 F.3d 1170, 1176 (9th Cir. 2016)).

8. A plaintiff may establish exposure to asbestos from a defendant's conduct through direct or circumstantial evidence. *Morgan v. Aurora Pump Co.*, 248 P.3d 1052, 1056 (Wash. Ct. App. 2011). "However, '[w]hen reliance is placed upon [circumstantial] evidence, there must be reasonable inferences to establish the fact to be proved.'" *Id.* (quoting *Arnold v. Sanstol*, 260 P.2d 327, 329 (Wash. 1953)); *see also Sanchez v. Haddix*, 627 P.2d 1312, 1315 (Wash. 1981) ("Where causation is based on circumstantial evidence, the factual determination may not rest upon conjecture[.]").

9. "Ultimately, the sufficiency of the evidence of causation will depend on the unique circumstances of each case." *Lockwood*, 744 P.2d at 613 (identifying factors, in a product liability occupational exposure case, for the trial court to consider when determining whether there is sufficient evidence to take the case to the jury).

10. Here, Plaintiff alleges that Geraldine was exposed to asbestos from the Shipyard because Navy personnel did not consistently follow Navy asbestos workplace regulations. Dkt. No. 1 ¶ 105.

11. To establish causation, Plaintiff must proffer non-speculative evidence that Geraldine was injuriously exposed to asbestos from the Shipyard's negligent violation of mandatory and specific directives. *See Hartley v. Washington*, 698 P.2d 77, 82 (Wash. 1985) ("the breach of duty must also be shown to be the proximate cause"); *see also Andrews v. United States*, 121 F.3d 1430, 1441 (11th Cir. 1997) (finding that, although the Navy violated a mandatory duty to segregate waste, plaintiffs failed to show causal nexus under state law between the Navy's

violation of this duty and the alleged contamination); *Hall v. United States*, 233 F.R.D. 591, 597 (D. Nev. 2005) (holding that the FBI's failure to follow mandatory rule to notify headquarters and the U.S. Attorney of illegal conduct was not actionable without a viable allegation that this failure caused plaintiffs' Ponzi scheme losses).

B. Assuming Without Deciding that (1) the Government Owed a Duty to Protect Geraldine from Asbestos Exposure, (2) the Government Did Not Comply With All Mandatory Asbestos Control Policies, and (3) Geraldine Had Mesothelioma, Plaintiff's Claims Nonetheless Fail for Lack of Proximate Cause.

1. Plaintiff Did Not Show by a Preponderance of the Evidence That Geraldine Experienced More than de Minimus Para-Occupational Asbestos Exposure Resulting from Actionable Navy Conduct.

12. Plaintiff's experts speculated that H.J. received substantial asbestos exposure because he worked as a machinist at the NISMF and/or on the *USS Sacramento* during overhaul, and that this presumed exposure was carried home to Geraldine because of reports he had dusty, dirty clothes.

13. The preponderance of the evidence shows that H.J. would not have performed rip-out as a MM1, nor would his assignments at the Shipyard have entailed work with, or near, asbestos-containing material. Because the evidence shows that H.J. did not perform rip-out, the Navy was not required to provide him with coveralls. And because H.J. did not work with or near asbestos-containing materials, any failure of Navy personnel to comply with asbestos-containment procedures would not have increased the number of asbestos fibers on H.J.'s clothing.

14. Plaintiff's experts assumed that H.J. brought asbestos home on his clothing because more than 50 years later, his daughter recalled his dusty, dirty clothes. It is speculative to assume that the Government failed to provide H.J. with coveralls or that his dusty clothing contained asbestos. That H.J. arrived home from work at a complex construction site with dirty or dusty clothes does not lead to a reasonable inference that the dirt or dust contained asbestos.

15. Plaintiff argues that even if H.J. was not required to wear coveralls, discretionary immunity does not bar her claim because he was exposed to asbestos from other purported workplace rule violations, including the failure to use asbestos containment areas or follow proper cleanup procedures.

16. Even if, as Plaintiff argues, the Government failed to follow procedures for containing or cleaning up asbestos products, no evidence was presented suggesting that this failure increased Geraldine's exposure. Plaintiff presented no evidence that H.J. was aboard any ship when asbestos work was performed, let alone that he was ever close enough to that work that asbestos fibers would have adhered to his clothing. Without such evidence, Plaintiff failed to show that if the Government's procedures had been strictly followed, H.J.'s exposure (and therefore Geraldine's) would have been significantly reduced. Indeed, the evidence suggests otherwise. Therefore, it is speculative to assume that H.J. received any meaningful exposure when he was working at Bremerton, or that, by extension, Geraldine was exposed by laundering his clothing.

17. Moreover, under Washington law, there must be specific evidence showing that Geraldine was exposed to asbestos as the result of the Government's actionable conduct. Plaintiff did not meet this burden of proof by presenting general evidence that there was asbestos work performed at H.J.'s worksite or expert testimony that H.J. would have been exposed to asbestos when present aboard ships. *See Klopman-Baerselman v. Air & Liquid Sys. Corp.*, No. 3:18-cv-05536-RJB, 2019 WL 6619821, at *3–4 (W.D. Wash. Dec. 5, 2019) (applying the *Lockwood* factors and granting summary judgment, finding plaintiff's evidence that defendant sold asbestos-containing products to the Navy, and plaintiff's expert opinion testimony that the ships on which decedent worked would have contained asbestos and he would have been exposed to asbestos was insufficient).

18. Even if there had been evidence of actionable para-occupational exposure during the few months H.J. worked on a ship at the Shipyard, the preponderance of the evidence shows that Geraldine was likely exposed to significantly more asbestos para-occupationally before March 1970 (which is not actionable here) and that Geraldine underwent radiation treatment in 2010, which can cause mesothelioma. *See* Dkt. No. 122 at 99, 166, 181–83; Dkt. No. 123 at 15–16; Dkt. No. 125 at 20, 35–37, 44. Such evidence is relevant under Washington law in determining whether there is sufficient evidence to establish causation in an asbestos case. *See Klopman*, 2019 WL 6619821, at *3 (recognizing that there may be many possible sources of asbestos that could have caused decedent's death in granting judgment for the defendant). Given Geraldine's, at most, de minimis actionable para-occupational asbestos exposure, and the other far more significant contributing factors to mesothelioma she sustained, Plaintiff failed to show that any actionable para-occupational exposure between March 1970 and August 1972 was a substantial contributing factor in increasing Geraldine's risk of developing mesothelioma.

19. For these reasons, Plaintiff failed to meet her burden to prove that Geraldine was exposed to actionable asbestos para-occupationally, during the five to six months her husband worked at the Shipyard between March 1970 and August 1972, that was capable of contributing to the development of mesothelioma. Consequently, the Court enters judgment for the United States as to Plaintiff's para-occupational exposure claim.

2. Plaintiff Did Not Show by a Preponderance of the Evidence That Geraldine Experienced More than de Minimus Environmental Asbestos Exposure Resulting from Actionable Navy Conduct.

20. There is no evidence that any actionable source of asbestos could have reached Geraldine's home at 3733 D Street, in Bremerton.

21. Plaintiff failed to provide any scientifically supported chemical fate and transport analysis for asbestos fibers to support her claim for environmental exposure. There is evidence

that Geraldine's residence was, at times, downwind from the Shipyard. There is no evidence, however, that asbestos fibers could have traveled to Geraldine's residence in light of the chemical structure and behavior of asbestos, the impact of wind turbulence and wind strength on asbestos movement, and the local terrain and elevation between the Shipyard and her home. Given the failure to consider such factors, Plaintiff's experts' opinions that any measurable level of asbestos reached Geraldine's home is unsupported by reliable methodology and is therefore speculative.

22. Plaintiff's experts failed to consider what asbestos fibers, if any, could have been released from actionable Shipyard conduct, let alone whether any such exposure could be a significant factor in the development of mesothelioma.

23. Even if there were evidence that actionable asbestos traveled to Geraldine's residence, the preponderance of the evidence does not show that any such exposure was more than de minimus. Instead, the preponderance of the evidence shows that Geraldine was potentially exposed to significantly more asbestos para-occupationally before March 1970 (which is not actionable) and that Geraldine underwent radiation treatment in 2010 (which is an undisputed cause of mesothelioma). Such evidence is relevant under Washington law in determining whether there is sufficient evidence to establish causation in an asbestos case. *See Klopman*, 2019 WL 6619821, at *3. Given the relatively short period that Geraldine lived in Bremerton and the other far more significant contributing factors to mesothelioma that she sustained, Plaintiff failed to show that any actionable environmental exposure between March 1970 and March 1974 significantly increased Geraldine's risk for developing mesothelioma.

24. For these reasons, Plaintiff failed to meet her burden to prove that Geraldine was exposed to actionable asbestos from the ambient Bremerton air that was capable of contributing to the development of mesothelioma.

3. Plaintiff Did Not Meet Her Burden to Prove That Actionable Asbestos Exposures Were, in Fact, a Substantial Causative Factor to Geraldine's Disease.

25. A plaintiff must establish that the asbestos exposure did in fact result in the injury ("specific causation"). *See Henricksen v. ConocoPhillips Co.*, 605 F. Supp. 2d 1142, 1155 (E.D. Wash. 2009) (citing *In re Hanford Nuclear Reservation Litig.*, 292 F.3d 1124, 1133 (9th Cir. 2002)).

26. To establish specific causation, Plaintiff must offer non-speculative evidence that Geraldine was exposed to a dose of asbestos from actionable conduct that was a substantial contributing factor to her alleged mesothelioma. *See Klopman*, 2019 WL 6619821, at *3–4; *see also Stephens*, 935 F.3d at 856 (stating that expert's opinions must rest on facts or data, not assumptions and speculation).

27. Plaintiff's specific causation expert, Dr. Kradin, assumed that Geraldine was exposed to asbestos above a threshold level because her husband worked as a Machinist's Mate and she resided near the Shipyard. Dr. Kradin did not characterize or estimate Geraldine's actual exposures between 1970 and 1974, let alone her exposures from actionable conduct.

28. Although he recognized that radiation therapy contributed to Geraldine's mesothelioma, Dr. Kradin did not consider the extent to which radiation contributed to her disease.

29. Nonetheless, Dr. Kradin opined that Geraldine's asbestos exposures were a substantial contributing factor in causing her mesothelioma because "she would have been exposed to above background levels of asbestos capable of causing mesothelioma." Dkt. No. 122 at 60–62. Dr. Kradin further testified that Geraldine's pre-1970 asbestos exposures did not matter to his opinion because "the cumulative dose is what matters with respect to the risk for developing the disease. So all exposures above background would have to be counted." *Id.* at 60–61.

30. Dr. Kradin's specific causation opinion that every exposure above the background level was a substantial contributing factor to Geraldine's "cumulative dose" of asbestos is unreliable because it lacks sufficient factual support and is not grounded in data or reliable methodology. *See McIndoe*, 817 F.3d at 1177 (finding expert's testimony that every asbestos exposure above a threshold level was a substantial factor in the development of mesothelioma was unreliable because the expert "did not speak to the severity of [plaintiff's] exposure" to asbestos or "make distinctions between the overall dose of asbestos … and that portion of such exposure which could be attributed to the shipbuilders' asbestos-containing materials"); *Barabin v. Scapa Dryer Fabrics, Inc.*, No. C07-1454JLR, 2018 WL 840147, at *11–13 (W.D. Wash. Feb. 12, 2018) (finding the cumulative exposure theory that "every exposure to asbestos above a threshold level is necessarily a substantial factor" in causing mesothelioma "lacked sufficient support in facts and data" and was therefore unreliable under Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592–94 (1993)).

31. The Court gives Dr. Kradin's testimony regarding specific causation no weight because it was based on conjecture that Geraldine developed mesothelioma from some unspecified or assumed cumulative dose of above-background asbestos exposures. As explained above, Plaintiff did not show by a preponderance of the evidence that Geraldine experienced more than a de minimus asbestos exposure from actionable Shipyard conduct. Further, Dr. Kradin failed to address the contribution that radiation therapy to the precise location of Geraldine's chest tumor had on its development.

32. For the foregoing reasons, the Court finds that Plaintiff failed to meet her burden to prove Geraldine's asbestos exposures from actionable Navy conduct was a substantial factor in her mesothelioma. The Court will enter judgment in favor of the Government against Plaintiff on her remaining claims.

33. To the extent that any of the foregoing Findings of Fact are deemed to be conclusions of law, they are incorporated into these Conclusions of Law.

V. CONCLUSION

For these reasons, the Court enters judgment in favor of the United States.

DATED this 27th day of December, 2024.

Kymberly K. Evanson
United States District Judge