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for Health and Environmental Justice

**UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION**

GREENACTION FOR HEALTH AND  
ENVIRONMENTAL JUSTICE, a non-profit  
corporation,

Plaintiff,

v.

UNITED STATES DEPARTMENT OF THE  
NAVY, a military department and agency of the  
United States; UNITED STATES  
ENVIRONMENTAL PROTECTION  
AGENCY, a United States government agency,

Defendants.

Civil No.

COMPLAINT FOR DECLARATORY AND  
INJUNCTIVE RELIEF

**I. INTRODUCTION.**

1. Greenaction for Health and Environmental Justice (“Greenaction”) seeks declaratory and injunctive relief for the U.S. Navy’s and U.S. EPA’s violations of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. § 9601, *et. seq.*,

1 the National Contingency Plan (“NCP”), 40 C.F.R. § 300.400, *et. seq.*, and the *Federal Facilities*  
2 *Agreement for Naval Station Treasure Island – Hunters Point Annex* (“FFA”) relating to the cleanup of  
3 the former Hunters Point Naval Shipyard Superfund site (“Shipyard” or “HPNS”) in San Francisco,  
4 California.

5 2. Greenaction files this action to redress egregious violations of CERCLA, the NCP, and  
6 the FFA by the Navy and EPA. They have failed to perform non-discretionary duties imposed by  
7 CERCLA and have acted in a manner that is arbitrary, capricious, an abuse of discretion, and not  
8 otherwise in accordance with law.

9 3. Furthermore, the FFA, mandated by 42 U.S.C. § 9620, requires that the Navy and EPA  
10 carry out their respective response actions in the Shipyard cleanup in accordance not only with  
11 CERCLA and the NCP, but with EPA CERCLA guidances as well. The Navy has consistently failed to  
12 comply with its agreement, including improperly using non-EPA approved methods. EPA has failed to  
13 perform its statutory oversight role and responsibilities to enforce the FFA.

14 4. The Navy’s violations of CERCLA, the NCP and the FFA are compounded by the fact  
15 that its radiological cleanup contractor, Tetra Tech EC, Inc. (“TtEC”), committed fraud under the  
16 Navy’s supervision. The nature and extent of the TtEC fraud means that previously uncontaminated  
17 areas may have **become** contaminated. It also means that a complete and accurate understanding of the  
18 nature and extent of contamination throughout the site remains unknown. Accordingly, 100% site  
19 characterization must be redone.

20 5. The Navy defended TtEC’s data for six years, from discovery of the fraud in 2012, until  
21 2018, after EPA released a devastating analysis which found the data so riddled with fraud and quality  
22 assurance/quality control (“QA/QC”) deficiencies that it all had to be discarded.

23 6. In the wake of the TtEC fraud and despite strenuous public objection, the Navy and  
24 EPA agreed to a plan that called for retesting only a third of TtEC’s soil remediation. However, under  
25 the approved retesting plans, if the one-third retesting found **any** contamination, that discovery would  
26 trigger 100% retesting.

1           7.       This action is prompted by two current and continuing violations of CERCLA, the NCP  
2 and the FFA. First, the Navy has reneged on the retesting agreement. Retesting **has** found  
3 contamination in all three parcels that have been retested to date, but the Navy has refused – for three  
4 (3) years – to retest 100% of TtEC’s work. Accordingly, the First Claim for Relief respectfully  
5 requests that the Court enforce the FFA, and the retesting agreements based on the FFA, requiring  
6 100% retesting.

7           8.       Second, the Navy’s most recent Five Year Review, its *Fourth* (“*Fourth FYR*”), was  
8 published well beyond the statutory deadline, without legal or factual justification, and failed to assure  
9 that the remedies are protective, as required by CERCLA, the NCP and the FFA. The Second Claim  
10 for relief respectfully requests that the court enforce the FFA and CERCLA’s non-discretionary Five  
11 Year Review mandates.

12           9.       In additional Claims for Relief, Greenaction seeks to compel the Navy and EPA to  
13 comply with the FFA and to perform their non-discretionary duties under CERCLA ensuring the  
14 remedies are protective of human health and the environment. Specific necessary actions include  
15 timely and faithful implementation of the CERCLA and NCP remedy selection process that was done  
16 improperly and should have been redone in response to the TtEC fraud but was not. Claims also seek  
17 redress for Navy and EPA actions that were arbitrary, capricious, an abuse of discretion, and not  
18 otherwise in accordance with law.

19           10.      The story of the Shipyard cleanup is a long and complicated one. To fully understand  
20 the Navy and EPA’s CERCLA, NCP and FFA violations, it is necessary to summarize the nature of the  
21 CERCLA process and the history of this fundamentally flawed cleanup.

22           11.      CERCLA was designed as an iterative process. It builds on data developed during an  
23 initial investigation into the history of contamination and its extent. This data is then used as the model  
24 for all subsequent cleanup planning and execution. If the original investigation is not done properly,  
25 those errors impact all future decision-making, affecting the cleanup for years.

26           12.      At HPNS, the Navy’s investigation into the historical radiological contamination was  
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1 badly flawed and left uncorrected. Decisions based on these errors have compromised the cleanup ever  
2 since. As such, the original violations are continuing ones until they are rectified.

3 13. For example, the remedial goals at HPNS were improperly proposed by the Navy and  
4 approved by EPA in 2006. EPA apparently recognized its error and has since insisted the Navy update  
5 its remedial goals to reflect modern standards. The Navy has not done as EPA asked. As a result, the  
6 Navy's improper 2006 decision continues to corrupt the cleanup in 2024.

7 14. CERCLA anticipates the possibility that information on which decisions are based may  
8 turn out to be inaccurate or become outdated and provides mechanisms for correcting them to ensure  
9 an approach that protects human health and the environment. Corrective actions range from  
10 Explanations of Significant Differences if errors in Records of Decision ("RODs") are relatively  
11 minor, to formal ROD amendments when more extensive corrections are required to address  
12 fundamental errors. Five Year Reviews are to be used to identify errors associated with the cleanup,  
13 which can then be corrected through a ROD amendment. However, the Navy has failed to use the Five  
14 Year Review process to correct its errors.

15 15. Greenaction respectfully asks this court to require that the Navy and EPA comply with  
16 CERCLA, the NCP, the FFA and EPA CERCLA Guidance in conducting the cleanup at the Shipyard.

## 17 **II. JURISDICTION.**

18 16. This Court has subject matter jurisdiction over this action pursuant to 42 U.S.C. §§  
19 9659(a)(1) and (a)(2), 42 U.S.C. § 9613(j), and 28 U.S.C. § 1331. This case involves a civil action  
20 arising under the laws of the United States including CERCLA, 42 U.S.C. § 9601, *et. seq.*, the NCP, 40  
21 C.F.R § 300.400, *et. seq.*, and the FFA, which was adopted pursuant to 42 U.S.C. § 9620.

22 17. Jurisdiction is also proper in this Court pursuant to 28 U.S.C. §§ 2201 and 2202, which  
23 authorize declaratory and injunctive relief, respectively. This Court is also authorized to grant relief  
24 under 5 U.S.C. § 706, and 28 U.S.C. § 2202.

25 18. This Court has personal jurisdiction over the defendants pursuant to 42 U.S.C. §  
26 9613(b), which grants exclusive original jurisdiction over all controversies arising under CERCLA to  
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1 the United States district courts.

2 19. Plaintiff Greenaction has satisfied the 60-day notice requirement imposed by 42 U.S.C.  
3 § 9659(d). Greenaction sent a Notice of Intent to Sue by certified mail, return receipt requested, on  
4 December 7, 2023, to all necessary parties. To correct inadvertent omissions, Greenaction sent an  
5 Amended Notice to all necessary parties by certified mail, return receipt requested, on January 17,  
6 2024. Copies are attached hereto and incorporated herein by reference as Exhibit 1. The Navy and EPA  
7 did not resolve the issues alleged in the Notices between the December 7, 2023 Notice, and the filing  
8 of this action. Accordingly, there exists an active case and/or controversy over the violations alleged in  
9 the 60-day Notice and this Complaint.

### 10 III. VENUE.

11 20. Venue is proper in this District under 42 U.S.C. § 9613(b), 42 U.S.C. § 9659(b), and 28  
12 U.S.C. § 1391(b). The Navy and EPA reside in the Northern District of California for purposes of this  
13 action. The release and threatened release of hazardous substances into the environment, which form  
14 the basis of Greenaction's claims, occurred in San Francisco County, California. The violations of the  
15 FFA and of law, and failure to carry out non-discretionary duties by both agencies took place within  
16 this District. Assignment to the San Francisco Division of the Northern District is proper under Local  
17 Rule Civil L.R. 3-2(c)-(d).

### 18 IV. PARTIES.

19 21. Greenaction for Health & Environmental Justice, a 501(c)(3) nonprofit corporation, is a  
20 multiracial grassroots organization that partners with low-income and working-class communities to  
21 fight for health and environmental justice. Its principal address is 466 Geary Street, Suite 300, San  
22 Francisco, CA 94102.

23 22. Greenaction has advocated for San Francisco's Bayview Hunters Point neighborhood, a  
24 historically Black community overburdened by pollution which abuts the Shipyard, for more than  
25 twenty-five (25) years. Greenaction brings this citizen action under 42 U.S.C. § 9659.

26 23. Greenaction's members, contributors, paid staff, volunteers, constituents, and  
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1 community of supporters live, work and/or recreate in and around the San Francisco Bay area,  
2 including the Bayview Hunters Point neighborhood. Greenaction's mission is to mobilize community  
3 power to win victories that change government and corporate policies and practices to protect health  
4 and to promote environmental, social, economic and climate justice. Greenaction furthers its goals  
5 through education, community organizing, advocacy, and enforcement of environmental laws on  
6 behalf of itself and its members.

7         24. Greenaction's members include citizens, taxpayers, property owners, and residents,  
8 with recreational, health, educational, scientific, conservation, aesthetic, and/or spiritual interests in the  
9 air, soil, and water quality of the Hunters Point community. Greenaction has one or more members  
10 who use, explore, research, and recreate in or adjacent to areas impacted by the environmental cleanup  
11 process and contamination at the Shipyard. Members of Greenaction are suffering recreational,  
12 aesthetic, health, scientific, conservational, or other environmental injuries due to Defendants'  
13 unlawful actions and delays in implementing an effective cleanup of the contamination at the Shipyard.  
14 Defendants' failure to comply with CERCLA, the NCP, the FFA and EPA CERCLA Guidance in  
15 conducting the cleanup at the Shipyard is resulting in the presence of radiation and contamination that  
16 pose health threats to Greenaction's members and are adversely affecting their interests in securing a  
17 healthy and safe environment at the Shipyard and in the Hunters Point community. Thus, the interests  
18 of Greenaction and Greenaction's members have been, are being, and will continue to be adversely  
19 affected by Defendants' failure to take necessary contamination clean-up and remediation actions  
20 under CERCLA, the NCP, the FFA and EPA CERCLA Guidance. Greenaction's and its members'  
21 injuries-in-fact are fairly traceable to Defendants' conduct and would be redressed by the requested  
22 relief.

23         25. Defendants' failure to abide by their cleanup responsibilities and the prompt cleanup of  
24 contamination at the Shipyard is also subverting Greenaction's mission to protect the Hunters Point  
25 community and environment. As a consequence of Defendant's unlawful response actions,  
26 Greenaction has been compelled to expend resources (exclusive of this litigation) on alternative means  
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1 of protecting the community, Hunters Point environment and its members, which has diverted time and  
2 resources that could and would have been spent on other activities that are central to Greenaction’s  
3 mission.

4 26. Continuing commission of the acts and omissions alleged herein will irreparably harm  
5 Greenaction and one or more of its members, for which harm they have no plain, speedy or adequate  
6 remedy at law.

7 27. The United States Navy (“Navy”) is the maritime service branch of the United States  
8 Armed Forces. Its principal address is 1000 Navy Pentagon, Washington, DC 20350. The Navy is a  
9 “person” as defined by 42 U.S.C. § 9601(21) and is the current owner and operator of the Shipyard  
10 within the meaning of 42 U.S.C. § 9607(a)(1).

11 28. The United States Environmental Protection Agency (“EPA”) is an agency of the  
12 federal government tasked with protecting human health and the environment. Its principal address is  
13 1200 Pennsylvania Avenue, NW, Washington, DC 20004. The EPA oversees CERCLA cleanups  
14 pursuant to 42 U.S.C. §§ 9620 for federal facilities like the Shipyard. The EPA is a “person” as defined  
15 by 42 U.S.C. § 9601(21).

16 **V. STATEMENT OF FACTS.**

17 **A. The Navy Established the Hunters Point Naval Shipyard.**

18 29. This matter arises out of the Navy’s mishandling of the cleanup of the former Hunters  
19 Point Naval Shipyard.

20 30. During World War II, the Navy acquired the Hunters Point Dry Dock in southeastern  
21 San Francisco and transformed it from a small private dockyard into Hunters Point Naval Shipyard, a  
22 500-acre naval base.

23 31. Ship repair resulted in both chemical and radiological contamination of the Shipyard.  
24 This action primarily concerns the improper remediation of radiological contamination.

25 32. In the early 1950s, the Navy used HPNS to decontaminate seventy-nine (79) Navy  
26 vessels that were contaminated with radiation during a series of nuclear weapons tests in the South  
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1 Pacific called, "Operation Crossroads." Because radioactivity cannot be neutralized, decontamination  
2 transferred the radioactivity from the ships to the Shipyard.

3 33. The Navy steam-cleaned and sandblasted the ships' surfaces to remove exterior  
4 radioactive contamination. The sandblast sand, known as "grit," became highly radioactive. Much of  
5 the radioactive grit was disposed of in barrels dumped in the Pacific Ocean near the Farallon Islands.  
6 However, a sizable portion of the contaminated sand was either buried or dumped on the Shipyard.  
7 Contaminated grit was also washed from the drydocks in which the contaminated ships were  
8 sandblasted onto the ground around the drydocks, into San Francisco Bay, and into the Shipyard's  
9 sewer systems, contaminating them. Radioactive sandblast grit was also piled near drydocks and stored  
10 in uncovered barrels on site, allowing the area's notoriously strong and swirling winds to scatter it  
11 throughout the Shipyard.

12 34. The Navy also removed radioactive "deck markers" from ships. These objects were  
13 painted with glowing radium and were used to illuminate pathways for sailors on decks and in  
14 corridors. When workers removed these glow-in-the-dark markers, they treated them as novelties, as  
15 they were unaware at the time of the dangers of exposure to the radiation they emitted. Workers and  
16 sailors disposed of these radioactive objects throughout the Shipyard including in its landfills,  
17 dumpsters, and other trash receptacles. Deck markers were tossed aside along roadways and sailors and  
18 workers even took them home.

19 35. Approximately 610,000 gallons of radioactive fuel from the contaminated ships were  
20 incinerated in Shipyard boilers. Like the radioactive grit, wind spread the radioactive smoke  
21 throughout the Shipyard.

22 36. Additional radiological contamination resulted from activities of the Naval Radiological  
23 Defense Laboratory ("NRDL"), a research center located on the Shipyard which studied the biological  
24 impacts of radiation exposure, decontamination methods, radiation protection, nuclear defense  
25 strategies, fire safety, and radiation instrument calibration.

26 37. The Navy ended Shipyard activities in 1974. From 1976 to 1986, the Navy leased  
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1 HPNS to a private ship repair company.

2 38. In 1989, EPA listed HPNS on the National Priorities (“Superfund”) List (“NPL”).

3 **B. Legal Background: CERCLA Imposes a Mandatory Duty of Protectiveness.**

4 39. In 1980, Congress enacted CERCLA in response to demands for the federal government  
5 to oversee the cleanup of the nation’s most contaminated sites and safeguard the public from their  
6 potential danger.

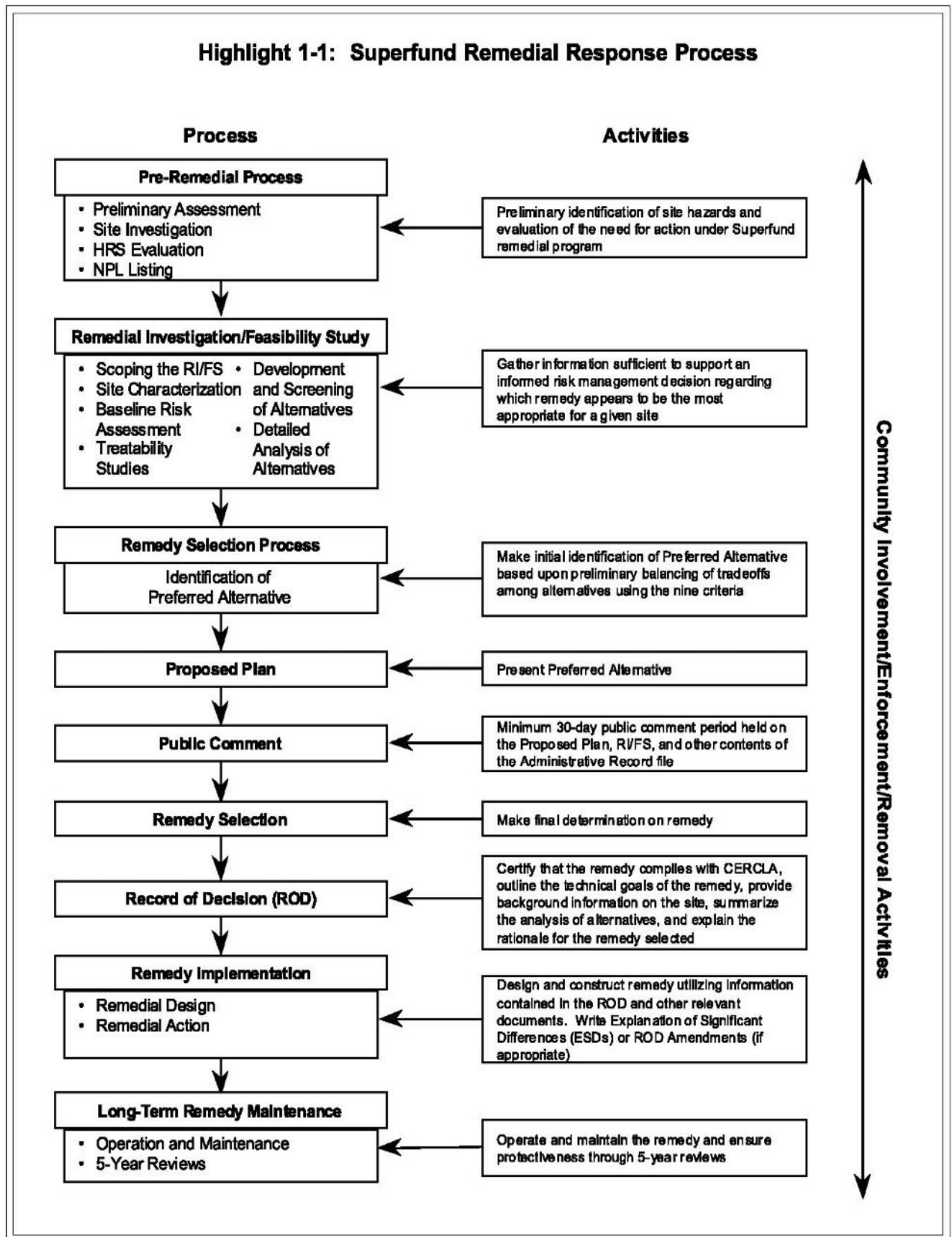
7 40. In 1986, Congress amended CERCLA through the Superfund Amendments and  
8 Reauthorization Act (SARA). SARA expanded the original statute and among other things, clarified  
9 that federal facilities must adhere to the same cleanup requirements as private entities.

10 41. CERCLA provides the legal framework for Superfund cleanups. Its primary mandate is  
11 protection of human health and the environment. 42 U.S.C. § 9621 imposes a non-discretionary duty  
12 on the Navy and EPA to “select remedial actions that protect human health and the environment” at the  
13 Shipyard.

14 42. 42 U.S.C. § 9620 also creates a mandatory duty on the Navy and EPA to enter an FFA  
15 which governs the CERCLA cleanup at HPNS, under EPA oversight. Under the statute, the EPA  
16 Administrator is the ultimate decisionmaker if there is a dispute between agencies over the cleanup’s  
17 protectiveness.

18 43. NCP regulations establish a detailed federal blueprint for CERCLA cleanups, at 40 CFR  
19 part 300, subpart E.

20 44. The following figure depicts a flowchart of the CERCLA cleanup process sourced from  
21 the EPA guidance, *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other*  
22 *Remedy Selection Decision Documents*.



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1           45.     Once a site is placed on the NPL, as was done here, a Remedial Investigation (“RI”) and  
2 Feasibility Study (“FS”) are conducted. In accordance with the NCP, 40 CFR 300.430, the Remedial  
3 Investigation’s purpose is to “collect data necessary to adequately characterize the site for the purpose  
4 of developing and evaluating effective remedial alternatives.”

5           46.     In accordance with EPA’s *Guidance for Conducting Remedial Investigations and*  
6 *Feasibility Studies under CERCLA*, to characterize the nature and extent of contamination, sampling  
7 and analysis should “include the horizontal and vertical extent of contamination in soil, ground water,  
8 surface water, sediment, air, biota, and facilities.” Further, sampling and analysis should “tak[e] a large  
9 number of samples using field screening type techniques and then, based on the results of these  
10 samples, taking additional samples – to be analyzed more rigorously –from those locations that showed  
11 the highest concentrations in the previous round of sampling.”

12           47.     In accordance with the NCP, 40 CFR 300.430(d)(4), the RI also includes a baseline risk  
13 assessment, which is a site-specific assessment that “characterize[s] the current and potential threats to  
14 human health and the environment that may be posed by contaminants migrating to ground water or  
15 surface water, releasing to air, leaching through soil, remaining in the soil, and bioaccumulating in the  
16 food chain.” The findings of the baseline risk assessment help develop acceptable exposure levels for  
17 remedial options in the Feasibility Study. EPA’s *Risk Assessment Guide for Superfund (RAGS) Part A*,  
18 explains how to conduct a baseline risk assessment in a manner that fully evaluates potential risks to  
19 human health and the environment.

20           48.     In accordance with the NCP and EPA’s *Guidance for Conducting Remedial*  
21 *Investigations and Feasibility Studies under CERCLA*, the FS determines, analyzes, and evaluates  
22 remedial alternatives. After an initial screening of options, a selected number of alternatives undergo a  
23 thorough analysis using nine evaluation criteria outlined in 40 C.F.R. 300.430(b). Each option under  
24 consideration must be protective of human health and the environment.

25           49.     In accordance with the NCP and EPA’s *A Guide to Preparing Superfund Proposed*  
26 *Plans, Records of Decision, and Other Remedy Selection Decision Documents*, the Proposed Plan for  
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1 remediation (“Plan”) concisely recaps the alternatives explored during the RI/FS and outlines a  
2 Preferred Alternative. The lead agency is required to explain and justify the Preferred Alternative,  
3 relying on facts presented in the studies and included in the administrative record, and reasoned  
4 analysis.

5 50. Pursuant to 42 U.S.C. §9617(b), the lead agency is required to share the plan with the  
6 public, solicit public comment and hold a public meeting to facilitate public participation. This section  
7 also requires, “a response to each of the significant comments, criticisms, and new data submitted in  
8 written or oral presentations.” The NCP contains detailed requirements for performing this statutory  
9 duty. EPA has also published extensive guidance on how to carry out the public participation  
10 requirements mandated by CERCLA and the NCP.

11 51. The lead agency then makes a final determination on which remedial alternative is  
12 chosen. It issues a Record of Decision (“ROD”) formally adopting the selected remedy. The ROD  
13 must confirm that the remedy selection process was conducted in compliance with CERCLA pursuant  
14 to 42 U.S.C. § 9621(a). The ROD sets the cleanup standards, commonly referred to as “remedial  
15 goals” (“RGs”), describes technical aspects of the remedy, such as treatment where possible, and  
16 describes “institutional controls” limiting future land uses, if they are included in the remedy.

17 52. CERCLA, the NCP and EPA guidances all recognize that modifications to the ROD are  
18 sometimes required. Depending on the nature and extent of the changes, they may be reflected in either  
19 an Explanation of Significant Differences (“ESD”) or a ROD Amendment, in accordance with 42  
20 U.S.C. § 9617(c) and 40 C.F.R. NCP §§ 300.435(c)(2) and 300.825(a).

21 53. 42 U.S.C. § 9659 authorizes “any person” to enforce the law if federal agencies do not  
22 follow it.

23 **C. The Navy, the EPA, and the State of California Entered into a Federal Facilities**  
24 **Agreement.**

25 54. The HPNS cleanup has been and is being conducted pursuant to 42 U.S.C. § 9620,  
26 which governs remediation of federal facilities.

27 55. As required by 42 U.S.C. § 9620(e)(2), on January 22, 1992, the Navy, the US EPA,  
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1 and the State of California, through the Department of Toxic Substances Control, entered into the  
2 *Federal Facilities Agreement for Naval Station Treasure Island – Hunters Point Annex* (“FFA”).

3 56. Section 1, “Purposes of the Agreement,” declares its purpose is to:

4 Establish a procedural framework and schedule for developing, implementing and  
5 monitoring appropriate response actions at the Site **in accordance with** the  
6 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),  
7 the National Contingency Plan (NCP), **Superfund guidance and policy**, the Resource  
8 Conservation and Recovery Act (RCRA), RCRA guidance and policy, and applicable  
9 State law.... (Emphasis added).

10 57. The commitment to implementing the HPNS cleanup “in accordance with” CERCLA,  
11 the NCP, and EPA guidance is explicitly reiterated throughout the agreement, including but not limited  
12 to sections devoted to, “Work to Be Performed,” “Review of Documents,” “Notice and Opportunity to  
13 Comment,” and “Public Participation and Community relations.”

14 58. EPA has promulgated multiple CERCLA guidances to help ensure consistent  
15 implementation of the federal cleanup program, including but not limited to:

- 16 • *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*;
- 17 • *Risk Assessment Guide for Superfund (RAGS)*;
- 18 • *A Guide to Preparing Superfund Proposed Plans*;
- 19 • *Records of Decision, and Other Remedy Selection Decision Documents*;
- 20 • *Human Health Toxicity Values in Superfund Risk Assessments*;
- 21 • *PRG User’s Guide, Land Use Descriptions, Equations, and Technical Documentation*;
- 22 • *Preliminary Remediation Goals for Radionuclides*;
- 23 • *Superfund Preliminary Remediation Goals for Radionuclides in Buildings (BRPG)*;
- 24 • *Land Use in CERCLA Remedy Selection Process*;
- 25 • *The Role of Background in the CERCLA Cleanup Program*; and
- 26 • *Citizen’s Guide to Capping*.

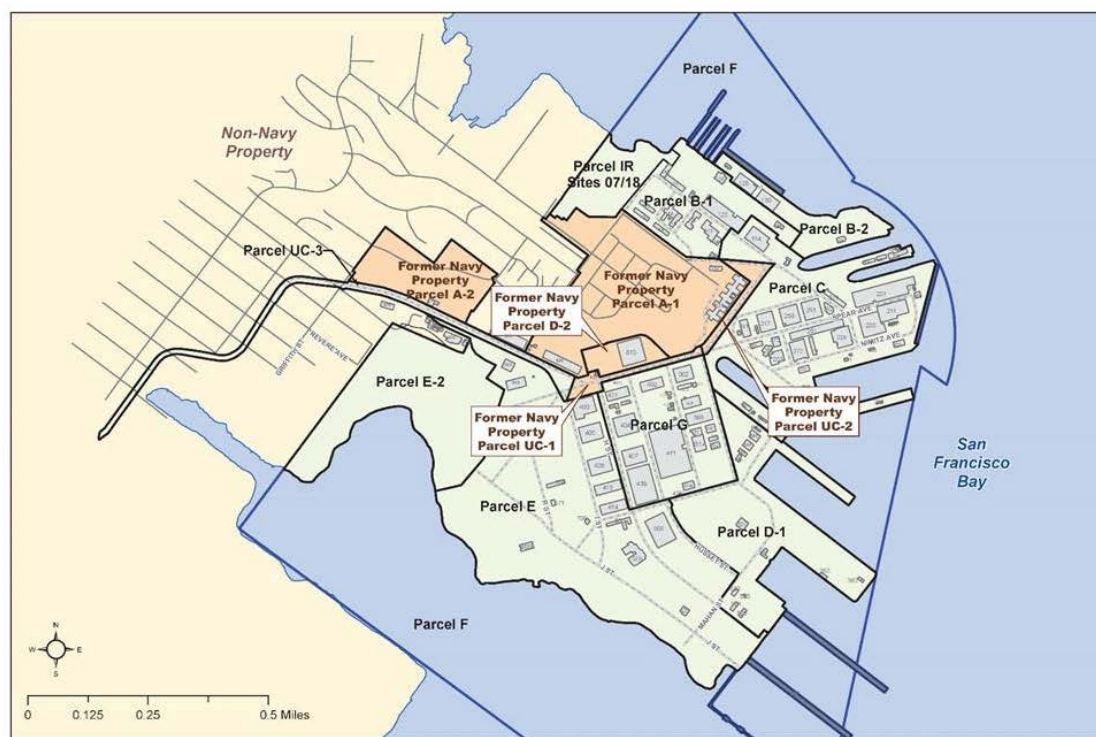
27 **D. The Navy Divided the Shipyard into Parcels**

28 59. To facilitate the cleanup, the Navy divided the Shipyard into alphabetically designated

1 geographic areas, entitled Parcels A through G. Each parcel represents an area of the shipyard  
 2 delineated for future commercial, residential, and/or recreational development, except Parcel F, which  
 3 consists of bay sediment around the Shipyard.

4 60. Some Parcels have been further subdivided. For example, Parcel B has been divided  
 5 into Parcels B-1 and B-2. Parcel C was subdivided to create three utility corridors/roadways, entitled  
 6 Parcels UC-1, UC-2, and UC-3. Parcel D was divided into Parcels D-1, D-2, and G.

7 61. Following is a diagram depicting the division of the parcels at HPNS.



21 62. In 2004, the Navy produced its *Historical Radiological Assessment, Volume II, Use of*  
 22 *General Radioactive Materials 1939-2003, Hunters Point Shipyard* (“HRA”) which purports to  
 23 describe the history of radiological operations conducted by the Navy at the shipyard.

24 63. The HRA indicated Parcel A had not been involved in industrial activities – it was used  
 25 primarily for housing. The Navy concluded it was not impacted chemically or radiologically.  
 26 Accordingly, Parcel A was transferred to the San Francisco Redevelopment Agency in 2004 and then  
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1 to a developer, which built a housing development there.

2 64. The Navy originally promised to conduct a full cleanup of all other parcels at the  
3 shipyard that would meet cleanup standards necessary for unrestricted residential use. This would have  
4 required removing all contamination above a remedial goal and not leaving residual contamination at  
5 the Shipyard which could preclude the unlimited use of the property, thus obviating the need for long-  
6 term monitoring and/or restrictions on future land uses.

7 65. However, when the Navy began to investigate the contamination on the ground, starting  
8 in Parcel B, it found that the *HRA* was inaccurate. Contamination was far more extensive and  
9 widespread than the *HRA* described. Cleanup to residential standards would require more work and  
10 expense than originally anticipated.

11 66. As a result, the Navy abandoned its promise to conduct a full cleanup to residential  
12 standards. Instead, it changed the fundamental nature of the remedy to include leaving residual  
13 contamination behind. To appear to meet CERCLA cleanup standards protective of human health, the  
14 Navy's modified remedy called for employing land-use restrictions called "institutional controls"  
15 ("ICs)," to prevent future contact with residual contamination it intended to leave behind.

16 **E. The Navy Adopted Improper Remediation Goals for Soils and Buildings**

17 67. The radiological cleanup at HPNS involved two primary types of contamination: soil  
18 and buildings.

19 68. A large portion of soil contamination was from the sanitary and stormwater systems on  
20 the Shipyard, which were thoroughly radiologically contaminated and had to be completely removed.  
21 Leaks from these systems contaminated the soil within which they were buried.

22 69. Existing Shipyard buildings were intended to be decontaminated and repurposed as part  
23 of the HPNS redevelopment.

24 70. The 2004 *HRA* identified 33 "Radionuclides of Concern" at HPNS, that is, radioactive  
25 elements that could cause short- or long-term harm to human health or the environment.

26 71. The Navy first adopted remedial goals ("RGs") – though it called them "release  
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1 criteria” – in “Table 1,” to its April 21, 2006, *Basewide Radiological Removal Action, Action*  
2 *Memorandum* (“*Basewide Removal Memo*”).

3 72. In accordance with 42 U.S.C. § 9601 (23), a removal action is:

4 the cleanup or removal of released hazardous substances from the environment, such  
5 actions as may be necessary taken in the event of the threat of release of hazardous  
6 substances into the environment, such actions as may be necessary to monitor, assess, and  
7 evaluate the release or threat of release of hazardous substances, the disposal of removed  
8 material, or the taking of such other actions as may be necessary to prevent, minimize, or  
mitigate damage to the public health or welfare or to the environment, which may  
otherwise result from a release or threat of release.

9 73. 42 U.S.C. § 9604(a)(2) states, in pertinent part, “Any removal action undertaken by the  
10 President under this subsection . . . should, to the extent the President deems practicable, contribute to  
11 the efficient performance of any long term remedial action with respect to the release or threatened  
12 release concerned.”

13 74. 42 U.S.C. § 9604(c)(1) limits removal actions to those that cost less than \$2,000,000  
14 and take up to 12 months to accomplish.

15 75. In accordance with the NCP, 40 CFR § 300.410, a “removal action” is a short-term  
16 remedy to an immediate threat, to be done “as promptly as possible.”

17 76. A “removal action” may be subject to less stringent cleanup standards in the short-term  
18 and may need to be followed by “remedial actions” to assure long-term protectiveness.

19 77. Removal actions are not subject to the public participation provisions of CERCLA and  
20 the NCP required for remedial actions.

21 78. A “remedial action” is defined in 42 U.S.C. § 9601(24), in pertinent part, as:

22 those actions consistent with permanent remedy taken instead of or in addition to removal  
23 actions in the event of a release or threatened release of a hazardous substance into the  
24 environment, to prevent or minimize the release of hazardous substances so that they do  
25 not migrate to cause substantial danger to present or future public health or welfare or the  
environment.

26 79. The NCP defines remedial action in 40 CFR 300.5. In general, a remedial action is



1 designed to protect public health and the environment permanently. CERCLA remedial actions, like  
2 the ones at this site, are subject to the public participation provisions of CERCLA, the NCP and,  
3 through application of the FFA, EPA CERCLA guidance.

4 80. By adopting the “Release Criteria” as part of a “removal action” instead of a “remedial”  
5 action, the public was not provided with a meaningful opportunity to participate in the remedy  
6 selection process, including the development of preliminary and final remedial goals, remedial action  
7 objectives and cleanup levels.

8 81. The *Basewide Removal Memo* adopted RGs for only 11 radionuclides, a third of the 33  
9 “Radionuclides of Concern” identified by the *HRA*. The Navy failed to cite adequate factual or legal  
10 justification for excluding two-thirds of the radionuclides of concern

11 82. The Navy classified each of 882 shipyard sites as either radiologically “impacted” or  
12 “non-impacted.” The Navy only classified 91 as “impacted.” No further radiological sampling or  
13 investigation was conducted for the 791 sites the Navy classified “non-impacted.”

14 83. The Navy’s characterization did not consider the radioactive sandblast grit buried or  
15 dumped on the base or blown around base by the area’s swirling winds. After EPA pointed out this  
16 inconsistency, the Navy responded by nominally adding “sediment” as a “potential migration  
17 pathway,” but not a single site designation changed from “non-impacted” to “impacted” after that  
18 change.

19 84. The Navy also failed to consider the smoke from burning 610,000 gallons of radioactive  
20 fuel being blown around the shipyard by the wind.

### 21 **1. The Soil Remediation Goals Were Adopted Improperly**

22 85. EPA published a guidance, *Preliminary Remediation Goals for Radionuclides*, for  
23 developing Preliminary Remediation Goals (“PRGs”), one of the NCP’s critical initial steps in  
24 preparing the Feasibility Study. PRGs are used in several ways, including in the consideration of  
25 remedial alternatives, in identifying a preferred cleanup alternative, and in determining final  
26 remediation goals selected in a ROD.

1 86. The Navy has failed to implement the cleanup at HPNS in accordance with the NCP's  
2 remedy selection process and associated EPA guidance.

3 87. EPA's website defines PRGs as "the average concentration of a chemical in an  
4 exposure area that will yield the specified target risk in an individual who is exposed at random within  
5 the exposure area."<sup>1</sup> In accordance with the NCP and multiple EPA guidances, including *Role of*  
6 *Baseline Risk Assessment in Superfund Remedy Selection Decisions*, EPA has consistently interpreted  
7 the CERCLA standard of "protectiveness" to mean remedies that ensure excess lifetime cancer risk is  
8 less than one in a million (in scientific notation,  $1 \times 10^{-6}$ ), or if site-specific circumstances justify and  
9 regulators allow, not more than one in ten thousand ( $1 \times 10^{-4}$ ).

10 88. Table 1 of the *Basewide Removal Memo*, which set the RGs, contains footnotes that are  
11 key to understanding how the Navy's remediation goals violate the FFA by not being in accordance  
12 with CERCLA, the NCP and EPA's CERCLA guidance.

13 89. Footnote "d" states that its soil release criteria were drawn from "EPA PRGs for two  
14 future use scenarios." However, the Navy did not specify what the "two future use scenarios" were or  
15 detail the inputs and assumptions associated with them. Nor did it publicly disclose its PRG  
16 calculations.

17 90. The *Basewide Removal Memo* states the soil cleanup goals were "derived" from the  
18 EPA's 1991 PRGs.

19 91. The Navy failed to compare its proposed remedial goals to default soil PRGs published  
20 by the EPA in 2004. In some cases, the 2004 EPA default soil PRGs were orders of magnitude more  
21 stringent than what the Navy adopted. For example, EPA's default value for europium-152 was .0416  
22 picocuries per gram ("pCi/g"), while the Navy adopted an RG of as .13 pCi/g; the EPA default for  
23 europium-154 was .0499 pCi/g, compared to the Navy's RG of .23 pCi/g.

24 92. Footnote "g," to Table 1 states that the Navy and EPA agreed that the RG for radium  
25

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26 <sup>1</sup> [https://www.epa.gov/risk/calculating-preliminary-remediation-goals-  
27 prgs#:~:text=The%20PRG%20is%20the%20average,random%20within%20the%20exposure%20area.](https://www.epa.gov/risk/calculating-preliminary-remediation-goals-prgs#:~:text=The%20PRG%20is%20the%20average,random%20within%20the%20exposure%20area.)

1 would be “1 pCi/g above background.” However, neither the Navy nor EPA have ever publicly  
2 disclosed the text of this agreement, its factual and/or legal basis, justified it in terms of the CERCLA  
3 risk range ( $1 \times 10^{-6}$  to  $1 \times 10^{-4}$ ), or explained how it accords with the NCP or EPA’s CERCLA  
4 guidances.

## 5 **2. The Building Remedial Goals Were Adopted Improperly.**

6 93. In the *Basewide Removal Memo*, The Navy cited two sources for the building RGs,  
7 neither of which was in accordance with the NCP and EPA’s CERCLA guidance.

8 94. Footnote “a” to Table 1 cites the Atomic Energy Commission’s (“AEC”) *Regulatory*  
9 *Guide 1.86*. The cleanup criteria in *Regulatory Guide 1.86* were developed for terminating licenses at  
10 nuclear power plants, so plant operators could “show that reasonable effort has been made to reduce  
11 residual contamination to as low as practicable levels.”

12 95. “As low as practicable,” does not ensure protectiveness of human health and the  
13 environment as required under CERCLA. It is not functionally equivalent to the NCP’s excess cancer  
14 risk range or hazard index, and it is not consistent with EPA’s CERCLA guidance. Neither the Navy  
15 nor EPA have ever publicly justified why it has been applied to the HPNS cleanup or how it is in  
16 accordance with CERCLA, the NCP and/or EPA guidance.

17 96. *Regulatory Guide 1.86* was more than three decades old when the Navy adopted the  
18 HPNS building RGs. And, whereas CERCLA’s remedial goals under the national Superfund program  
19 are risk-based, the AEG *Regulatory Guide* uses dose-based standards which do not ensure  
20 protectiveness of human health and the environment as mandated by CERCLA and the NCP. The  
21 *Regulatory Guide* and its dose-based standards are not in accordance with any approved EPA  
22 CERCLA guidance. As such, its use violates the FFA.

23 97. Footnotes “b” and “c” to Table 1 cite “RESRAD-Build Version 3.3,” a computer model  
24 developed by Argonne National Laboratory and sponsored by the Department of Energy to evaluate  
25 doses from residual radioactivity in nuclear power plants.

26 98. RESRAD-Build was out-of-date when the Navy adopted building RGs in 2006.

1 Footnote “b” states that the building RGs are based on a maximum dose of 25 millirems of radiation  
2 per year (“25 mrem/year”). However, in 1997, well before the Navy adopted the HPNS release criteria,  
3 EPA issued a CERCLA guidance, *Establishment of Cleanup Levels for CERCLA Sites with*  
4 *Radioactive Contamination*, that explicitly stated that doses above 15 mrem/year, which equates to  
5 approximately  $3 \times 10^{-4}$ , were **not** protective of human health as required by CERCLA. Current EPA  
6 guidance states that doses above 12 mrem/year are not protective of human health.

7 99. Like the AEC’s *Regulatory Guide*, RESRAD is a dose-based calculation rather than the  
8 risk-based one used in the Superfund program in accordance with CERCLA, the NCP and EPA’s  
9 CERCLA guidance.

10 100. RESRAD is not an EPA-approved CERCLA guidance. Its use does not ensure  
11 protectiveness of human health and the environment, as mandated by CERCLA and required by the  
12 NCP. As such, RESRAD and its dose-based calculations are not in accordance with an approved EPA  
13 CERCLA guidance. The Navy’s use of RESRAD violates the FFA.

14 101. Though the 2006 *Basewide Removal Action Memo* was issued for purposes of a short-  
15 term removal action, the Navy applied the RGs adopted in Table 1 to all subsequent long-term  
16 remedial actions, including the *Base-wide Radiological Work Plan* in 2007, the RODs for the various  
17 parcels, and *Five-Year Reviews*.

18 102. Despite the deficiencies in the RGs approved by the 2006 *Basewide Removal Action*  
19 described above, EPA improperly approved them, though they were not in accordance with CERCLA,  
20 the NCP and EPA CERCLA guidance. EPA then ratified its improper approval of the RGs by  
21 approving their use in subsequent Parcel RODs. EPA has never explained publicly why it took these  
22 improper actions.

23 103. The use of these RGs is not in accordance with CERCLA, the NCP, and EPA guidance.  
24 These actions are violations of the FFA, represent failures to ensure protection of human health and the  
25 environment, and are arbitrary, capricious, and not otherwise in accordance with law.

### 3. The Navy Calculated Background Radiation Levels Improperly

104. The Navy improperly estimated background levels of radiation by failing to adequately demonstrate that the sites selected for background sampling were not radiologically impacted.

105. EPA's 2002 *Soil Background Guidance* states that sampling to determine background in soil should be collected off site, in locations as like on-site conditions as possible.

106. The Navy improperly used a Shipyard site or sites for sampling to determine background levels of radiation. The use of improper background samples in calculating RGs is not in accordance with CERCLA, the NCP, and EPA guidance. These actions are violations of the FFA, represent failures to ensure protection of human health and the environment, and are arbitrary, capricious, and not otherwise in accordance with law.

#### F. The Navy Issued Records of Decisions for HPNS.

##### 1. Parcel B.

107. The Navy issued its *Hunters Point Shipyard Parcel B Final Record of Decision* ("*Parcel B ROD*"), on or about October 7, 1997.

108. The *HRA* did not identify **any** radiological impact in Parcel B. The *Parcel B ROD* agreed: "Between 1984 and 1991, the Navy performed a series of installation-wide investigations, including ambient air monitoring and radiation investigations, to identify potential sources of contamination at [HPS]. No air or radiation concerns were identified on Parcel B."

109. Accordingly, the selected remedies in the *Parcel B ROD* dealt exclusively with chemical contamination. There were no radiological remedies considered or selected.

110. However, the *HRA* and the *Parcel B ROD* were wrong, both about the existence of radiological impacts in Parcel B and the extent of chemical contamination there.

111. The model used to investigate chemical contamination was eventually called the "spill model." The term "spill model" was not used in the *HRA* or the *Parcel B ROD*. It was first introduced in the *Amended Parcel B ROD*. It assumed contamination resulted from discreet, well-delineated spills rather than there being more widespread general contamination. It also assumed that discrete chemical

1 spills resulted in “high chemical concentrations . . . near the center of the release and concentrations  
2 decrease outward.” The Navy employed the “spill model” initially to characterize whether Parcel B  
3 sites were chemically “impacted” or “non-impacted.”

4 112. “Spill model” is not a term used in, and is not in accordance with, CERCLA, the NCP  
5 or any EPA CERCLA guidance.

6 113. The “spill model” was eventually applied to radiological contamination on all Parcels.  
7 However, it was not an appropriate approach to evaluate the scope of radiological contamination and  
8 was not in accordance with EPA’s guidance, including EPA’s *RI/FS Guidance*, among others, because  
9 it did not adequately investigate and characterize the vertical and horizontal extent of radiological  
10 contamination.

11 114. Because the Navy did not investigate the full extent of contamination, the Navy and  
12 EPA did not implement response actions at HPNS that ensure protectiveness of human health and the  
13 environment; as such, the response actions at HPNS are not in accordance with CERCLA, the NCP  
14 and EPA CERCLA guidance, they violate the FFA, and they are arbitrary, capricious, and not  
15 otherwise in accordance with law.

16 115. The *Parcel B Amended ROD* states that as to chemical contamination, the Navy  
17 “successfully delineated and removed all contaminants at concentrations above cleanup goals at 93 of  
18 106 excavations implemented for the remedial action.” However, testing unexpectedly detected much  
19 higher levels of heavy metals across a much greater geographic area than anticipated, leading to  
20 reevaluation of the remedy at the remaining 13 sites. The “spill model,” as applied to chemical  
21 contamination in Parcel B, was incorrect more than 10 percent of the time.

22 116. Confronted with stark differences between what the *HRA* and *Parcel B ROD* claimed  
23 and the facts it found on the ground, the Navy altered the *Parcel B ROD* through two Explanations of  
24 Significant Differences (“ESDs”), both dealing with chemical contamination. The first ESD altered the  
25 depth of excavation. The second ESD updated remedial goals for chemical contamination resulting  
26 from EPA’s update of its PRGs for chemically contaminated soil. As discussed below, the Navy has  
27  
28

1 refused to update its radiological PRGs. It has never publicly explained why it was willing to update  
2 PRGs for chemical contamination but not for radioactive contamination.

3 117. The *Parcel B ROD* errors about radiological impacts were too fundamental to allow  
4 modification of the remedial action through an ESD. On January 14, 2009, the Navy adopted its  
5 *Amended Parcel B Record of Decision* (“*Amended Parcel B ROD*”), which identified radiological  
6 contamination in the Parcel’s soil and structures. Radionuclides of concern included strontium-90 (“Sr-  
7 90”), cobalt-60 (“Co-60”), cesium-137 (“Cs-137”), radium-226 (“Ra-226”), and plutonium-239 (“Pu-  
8 239”). The *Amended ROD* called for extensive radiological remediation.

9 118. Full excavation and removal of chemical and radiological contamination, as the Navy  
10 originally promised, would require much more work and expense than its erroneous *HRA* anticipated.  
11 As a result, the Navy fundamentally changed its remedy for Parcel B in the 2009 *Amended Parcel B*  
12 *ROD*. It no longer would be cleaned up to unrestricted residential levels without institutional controls  
13 (“ICs”) that would limit land uses.

14 119. EPA defines institutional controls as “non-engineered instruments such as  
15 administrative and legal controls that help minimize the potential for human exposure to contamination  
16 and/or protect the integrity of the remedy.”<sup>2</sup>

17 120. Pursuant to 40 CFR 300.430(a)(1)(iii)(D), institutional controls cannot substitute for  
18 active response measures, like containment and removal of contamination, as the sole remedy “unless  
19 such active measures are determined not to be practicable.”

20 121. The selected remedy in the *Amended Parcel B ROD* included “[decontaminating]  
21 radiologically impacted structures,” excavating storm drains and sanitary sewers and backfilling with  
22 clean soil, “[surveying] buildings and building sites,” and monitoring groundwater.

23 122. The remedy also included ICs that substituted for excavation and removal of chemical  
24 and radiological contamination. ICs included prohibiting future residents from gardening in native soil.  
25 Instead, they would be required to grow any fruit, vegetables, or other items for consumption in soil

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26  
27 <sup>2</sup> <https://www.epa.gov/superfund/superfund-institutional-controls>



1 contained in boxes which would, at least theoretically, prevent roots from extending to potentially  
2 contaminated soil below.

3 123. ICs would be enforced through deed restrictions.

4 124. The introduction of ICs was critically important to the Navy's selection of remedial  
5 goals, as it allowed the Navy to "switch off" home-grown produce as a route of radiological exposure,  
6 reducing the risk enough to satisfy CERCLA's risk range, at least according to the Navy.

7 125. However, EPA's *PRG User's Guide, Land Use Descriptions, Equations, and Technical*  
8 *Documentation* allows for exposure pathways to be switched off only if "a route of exposure . . . is  
9 considered to be unreasonable at the site, both currently and in the future."

10 126. It is unreasonable to assume future residents will forever garden only in raised beds if  
11 that limitation is enforced merely by deed restrictions. And even if all residents were made aware of  
12 the institutional controls and tried to comply, it is unreasonable to assume that raised beds will  
13 continue to be protective in perpetuity.

14 127. The new remedy also called for constructing "durable covers," over most of the Parcel  
15 to prevent exposure to potentially contaminated soil below the covers. These controls are not in  
16 accordance with CERCLA, the NCP and EPA guidance, since there are available, practicable  
17 engineering controls, including excavation and removal of chemical and radiological contamination.

18 128. Furthermore, covers must be destroyed to develop the site, as envisioned by the  
19 reasonably anticipated future land use of the Shipyard. These actions are violations of the FFA,  
20 represent failures to ensure long-term protection of human health and the environment, and are  
21 arbitrary, capricious, and not otherwise in accordance with law.

## 22 2. Parcels G and C.

23 129. The Navy issued its *Final Record of Decision for Parcel G, Hunters Point Shipyard*  
24 (*"Parcel G ROD"*) on or about February 18, 2009. Radiologically impacted sites identified by the  
25 *Parcel G ROD* included buildings formerly used by the Naval Radiological Defense Laboratory  
26 (*"NRDL"*). The radionuclides of concern identified by the *Parcel G ROD* were strontium-90 (*"Sr-*  
27



1 90”), cesium-137 (“C-137”), cobalt-60 (“Co-60”), plutonium-239 (“Pu-239”), radium-226 (“Ra- 226”),  
2 thorium-232 (“Th-232”), hydrogen-3 (“H-3”), and uranium-235 (“U-235”).

3 130. The selected remedies for Parcel G included removing radiologically contaminated  
4 storm drains and sanitary sewers, together with associated contaminated soil and backfilling with clean  
5 soil. The remedies also included the same institutional controls imposed by the *Amended Parcel B*  
6 *ROD*, including prohibiting gardening except in boxes, and “durable covers.”

7 131. The Navy issued its *Final Record of Decision for Parcel C, Hunters Point Shipyard*  
8 (*“Parcel C ROD”*) on or about September 30, 2010. The radionuclides of concern identified by the  
9 *Parcel C ROD* were strontium-90 (“Sr- 90”), cesium-137 (“C-137”), cobalt-60 (“Co-60”), plutonium-  
10 239 (“Pu-239”), radium-226 (“Ra- 226”), thorium-232 (“Th-232”), potassium-40 (“K-40”).

11 132. The selected radiological remedies in Parcel C included “surveying radiologically  
12 impacted buildings and former building sites,” removing radiologically contaminated soil, building  
13 materials, and sewer and storm drains and surveying excavated areas to ensure that residual  
14 radioactivity was below the RGs.

15 133. As is the case with Parcel B, the actions of the Navy and EPA as to Parcels G and C  
16 were not in accordance with CERCLA, the NCP and EPA guidance. As such, these actions are  
17 violations of the FFA, and represent failures to ensure protection of human health and the environment,  
18 and are arbitrary, capricious, and not otherwise in accordance with law.

19 **G. Tetra Tech’s Fraud Compromises the Cleanup.**

20 134. The Navy contracted with Tetra Tech EC, Inc. (“TtEC”) to perform remediation of  
21 radioactive contamination at HPNS. TtEC committed intentional fraud and violated quality assurance  
22 and quality control requirements, rendering all its data unusable.

23 135. The Navy initially discovered evidence of fraud in October 2012, when its Radiological  
24 Affairs Support Office identified 36 post-remediation soil sample results that had a significantly  
25 different radiological fingerprint than pre-remediation samples, evidencing possible falsified sampling.

26 136. The Navy did not investigate. It relied on TtEC to investigate itself.

27 137. In April 2014, TtEC produced a report titled, *Investigation Conclusion Anomalous Soil*

1 *Samples at Hunters Point Naval Shipyard* (the “*Anomalous Samples Report*”), claiming it was unable  
2 to determine the source of the fraudulent samples or to attribute responsibility.

3 138. The Navy defended TtEC’s *Anomalous Samples Report* from 2014 until 2018.

4 139. In 2017, whistleblowers came forward and detailed the breadth of the TtEC fraud in  
5 statements signed under penalty of perjury. Whistleblowers stated that the fraud began in 2009, was  
6 widespread, included false scans of radioactively contaminated soil and buildings, and was “initiated  
7 and directed” by corporate management.

8 140. Based on the whistleblowers’ sworn statements, on June 28, 2017, Greenaction filed a  
9 Petition with the Nuclear Regulatory Commission seeking to revoke TtEC’s radioactive materials  
10 license. The whistleblowers described six types of fraud:

- 11 1. fake sampling, in which thousands soil samples reported to have been taken at  
12 one location were actually taken from another;
- 13 2. discarding samples and analytical results that reported results above the clean-up  
14 standards;
- 15 3. altering scanning data to make them appear radiologically acceptable;
- 16 4. conducting fabricated or falsified building surveys;
- 17 5. remediating radioactive material in soil improperly, resulting in potentially  
18 radioactively contaminated soil being used as backfill for trenches at the  
19 Shipyard; and
- 20 6. altering Portal Monitor procedures so potentially radioactively contaminated soil  
21 was allowed to be shipped offsite for commercial purposes.

22 141. The whistleblower testimony led Greenaction to demand the Navy discard all TtEC’s  
23 data. The Navy refused. Instead, the Navy did a data review intended to **verify** TtEC’s data and  
24 “validate previous decisions regarding the property condition.”

25 **1. The Tetra Tech Data Is Found to Be Unreliable and Discarded.**

26 142. Starting in September 2017, the Navy released three data reviews, each of which  
27  
28

1 revealed more widespread fraud than the *Anomalous Samples Report* claimed. The first reviewed soil  
2 sampling data and building scans from Parcels B and G; the second involved soil sampling data and  
3 building scans from Parcels C and E; the third involved the bulk of building surveys basewide.

4 143. In Parcel B, the Navy found evidence of fraud in: 40% (2 of 5) of current and former  
5 building sites; 17.3% (19 of 110) of fill units; and 5.7% (4 of 70) of trench units.

6 144. In Parcel G, the Navy found evidence of fraud in: 100% (2 of 2) of the current and  
7 former building sites; 50.4% (54 of 107) of fill units; and 31.7% (20 of 63) of trench units.

8 145. In Parcel C, the Navy found evidence of fraud in: 78% (94 of 120) of fill units; 73% (8  
9 of 11) of survey units from the North Pier, and 46% (32 of 69) of trench units.

10 146. In Parcel E, the Navy found evidence of fraud in: 67% (64 of 96) of fill units; 60% (61  
11 of 102) of current and former building sites; and 46% (26 of 57) of trench units.

12 147. The building surveys also found “evidence of data manipulation and/or falsification.”  
13 The review of the building data concluded the TtEC data “could not be used to support a  
14 recommendation for radiological release.”

15 148. Regulators also conducted an independent review of TtEC’s Parcel B and G data. On  
16 December 27, 2017, the US EPA, and the California Departments of Toxic Substances Control and  
17 Public Health transmitted to the Navy *EPA Final Comments on Draft Navy Radiological Data  
18 Evaluation Parcels B & G Report*.

19 149. The regulators’ review of Parcel B data found much more evidence of suspect data than  
20 the Navy did. In addition to additional evidence of fraud, it identified significant quality assurance and  
21 quality control deficiencies the Navy did not. The regulators determined that 90% of the data from the  
22 survey units in Parcel B were suspect.

23 150. In Parcel G, EPA concluded 97% of survey units contained suspect data. They wrote:

24 The data revealed not only potential purposeful falsification and fraud in terms of sample  
25 and/or data manipulation, they also reveal the potential failure to conduct adequate scans,  
26 a lack of proper chain of custody for ensuring samples were not tampered with, extensive  
27 data control issues (including off-site laboratory data) and general mismanagement of the  
28 entire characterization and cleanup project.

1 151. After the regulators' data review, the Navy finally agreed that TtEC's data was not  
2 reliable, had to be discarded, and remediation had to be redone.

### 3 2. The Navy and Regulators Agree to a Retesting Plan.

4 152. The Navy and regulators agreed to a plan for retesting TtEC's work that was  
5 memorialized in 3 related, EPA-approved, work plans: the June 2018, *Final Parcel G Removal Site*  
6 *Evaluation Work Plan* ("Parcel G Retesting Plan"); the April 2022, *Final Parcel B Removal Site*  
7 *Evaluation Work Plan* ("Parcel B Retesting Plan"), and the August 2022, *Final Parcel C Removal Site*  
8 *Evaluation Work Plan* ("Parcel C Retesting Plan").

9 153. Section 3.4, "Radiological Investigation Design," of the *Parcel G Retesting Plan* stated  
10 the retesting agreement:

11 For Phase 1, 100 percent of soil will be re-excavated and characterized at 33 percent of  
12 trench units (TUs) associated with former sanitary sewers and storm drains in Parcel G.  
13 Soil sampling and scanning at the remaining 67 percent of TUs will be performed as part  
14 of Phase 2 to increase confidence that current site conditions comply with the Parcel G  
15 ROD RAO. **The Navy will re-excavate 100 percent of Phase 2 TUs if contamination  
16 is identified** in Phase 1 TUs. (Emphasis added).

15 154. The *Parcel B Retesting Plan* and *Parcel C Retesting Plan* contain the same retesting  
16 language.

### 17 3. Retesting Found Sr-90 Contamination in Parcel G.

18 155. The Navy began retesting Parcel G in 2021.

19 156. Using approved EPA testing methods, it found at least 23 samples from 9 different  
20 trench units exceeding the remediation goal for strontium-90 ("Sr-90"), 0.331 pCi/g.

21 157. The Navy did not acknowledge the Sr-90 exceedances until after Freedom of  
22 Information Act ("FOIA") requests disclosed them.

23 158. When forced to acknowledge the exceedances, instead of accepting its sampling results  
24 and living up to its 100% retesting agreement, the Navy made false claims about the Sr-90 results.  
25 These claims included that the results were (1) false positives; (2) within "background" radiation  
26 levels; (3) invalid data; and (4) not considered a risk to human health or the environment.

27 159. In public meetings on October 21, 2021, and August 22, 2022, the Navy presented  
28

1 slides purporting to graphically show the results of the retesting which omitted the Sr-90 exceedances.

2 **4. The Navy and the EPA Disagree on the Sr-90 Testing Results.**

3 160. The Navy's attempts to discredit its own Sr-90 data and renege on the retesting  
4 agreement have led to a three-year-long dispute with EPA.

5 161. While the Navy's website claims that it will use EPA methods for identifying strontium  
6 during retesting, it has sought to invalidate the Sr-90 data using a method not approved by EPA known  
7 as the "Eichrom method."

8 162. In a September 23, 2021, email, EPA objected to the Navy's use of the Eichrom method  
9 to invalidate the Sr-90 results: "We do not object to reanalyzing previously collected samples but  
10 would not support, in the absence of convincing evidence, using the new data to supersede existing  
11 results." It added: "[t]he previous strontium-90 results are valid data. It's inaccurate to suggest the  
12 data were not precise enough." (Emphasis added.)

13 163. At the same time the Navy was attempting to use the Eichrom method to invalidate its  
14 own EPA-approved data, the Navy concealed that the Eichrom method actually **confirmed** Sr-90  
15 exceedances. The Navy has not acknowledged this publicly. The following information was obtained  
16 through FOIA.

17 164. According to the FOIA response, the Eichrom method found at least five of eighteen  
18 samples — more than 27 percent — **exceeded** the Sr-90 remediation goals.

19 165. The Navy then sought to invalidate the exceedances by modifying the Eichrom method,  
20 but the modified method **again** produced results exceeding remedial goals.

21 166. The Navy then modified the Eichrom method a second time. This time, the results did  
22 not find Sr-90 exceedances. In sum, to obtain the results it wanted, the Navy had to use a method not  
23 approved by EPA and had to modify it twice.

24 167. That the Navy has acted in bad faith in attempting to invalidate its own Sr-90 data is  
25 evidenced by the fact it is the exact opposite of the Navy's treatment of TtEC's data. The Navy insisted  
26 – for six years – that the **invalid** TtEC data was **valid**. Now, it is attempting to **invalidate** perfectly  
27

1 **valid** data. It is no accident the result would be the same: no additional testing or remediation.

2 168. The Navy has announced that a “verification study” is being conducted to address the  
3 dispute between EPA and the Navy about the Sr-90 results. It has stated it plans to release the study to  
4 the public in July 2024. As further discussed below, if the Navy releases the verification study in July  
5 2024, that will be approximately two months **after** the public comment period for the *Draft Fifth FYR*  
6 closed on May 7, 2024, precluding public comments to the *Fifth Five Year Review* about the Sr-90 data  
7 review, in violation of CERCLA, the NCP and the FFA.

#### 8 **5. Retesting Also Found Radiological Objects on Parcels B & C.**

9 169. Since the discovery of Sr-90 exceedances on Parcel G, the Navy has also found  
10 radiological contamination in Parcels B and C. At a public meeting on September 25, 2023, the Navy  
11 disclosed that scanning of Parcel C soil, previously “remediated” by TtEC, found an easily identifiable,  
12 radioactive “deck marker.”

13 170. At a public meeting on December 4, 2023, the Navy disclosed it also found a  
14 radioactive object in Parcel B soil, a glass object contaminated with Radium-226.

15 171. With the discovery of these contaminated objects, the Navy has found radiological  
16 contamination in all three Parcels with approved retesting plans.

17 172. Despite these findings, the Navy has failed to perform 100% retesting, renegeing on its  
18 agreement with federal and state regulators and its public commitment. Failure to perform 100%  
19 retesting means that the vertical and horizontal extent of contamination remains unknown.

20 173. Without knowing the extent of contamination, the Navy and EPA have not implemented  
21 response actions at HPNS that ensure protectiveness of human health and the environment as required  
22 by CERCLA. The Navy and EPA have not acted in accordance with CERCLA, the NCP, and EPA  
23 guidance as required by the FFA. The actions of the Navy and EPA are arbitrary, capricious, an abuse  
24 of discretion, and not otherwise in accordance with law.

#### 25 **H. The Navy Violated CERCLA, the NCP and the FFA In Its *Fourth Five-Year*** 26 ***Review.***

27 174. The HPNS remedies leave residual contamination onsite. As mentioned above,

1 CERCLA requires a review of the remedy “no less often than each 5 years,” “to assure that human  
2 health and the environment are being protected by the remedial action being implemented” for “**any**  
3 hazardous substances, pollutants, or contaminants remaining at the site.” (Emphasis added).

4 175. The Navy published the *First Five-Year Review* (“FYR”) on or about December 10,  
5 2003.

6 176. The Navy published the *Second FYR* on or about November 11, 2008, within the  
7 statutory deadline.

8 177. The Navy published the *Third FYR* on or about November 8, 2013, within the statutory  
9 deadline.

10 178. The *Fourth FYR* was due no later than November 8, 2018. It was not published within  
11 the statutory deadline.

12 179. Instead, the Navy published the *Fourth FYR* on or about July 31, 2019, nearly nine  
13 months late. The Navy did not acknowledge its tardiness or offer any factual or legal justification for  
14 violating a Congressionally mandated deadline.

15 180. The Navy also published a series of *Addenda* to the *Fourth FYR*, further violating the  
16 statutory deadline. Its *Draft Addendum to the Five-Year Review, Evaluation of Radiological Remedial*  
17 *Goals for Soil* (“2019 Soil Addendum”) was released on or about August 8, 2019, approximately nine  
18 months late. The Navy released its *Draft Addendum to the Five-Year Review, Evaluation of*  
19 *Radiological Remedial Goals for Buildings* (“2019 Building Addendum”), on or about October 10,  
20 2019, nearly a year after the statutory deadline. Its *Addendum to the Five-Year Review, Evaluation of*  
21 *Radiological Remedial Goals for Soil* (“2020 Soil Addendum”) was published on or about June 18,  
22 2020, approximately twenty months late.

23 181. The *Fifth FYR* was due no later than November 8, 2023. The Navy published its *Draft*  
24 *Fifth FYR* on January 26, 2024. The Navy has stated it plans to release the final *Fifth FYR* in July  
25 2024, approximately nine months past the statutory deadline, effectively granting itself an improper *de*  
26 *facto* extension – forever into the future – to its FYR deadlines, in violation of CERCLA, the NCP and  
27



1 the FFA.

2 **1. The Navy’s *Fourth* FYR Failed to Update Its Remedial Goals as Required**  
 3 **by the FFA and EPA Guidance.**

4 182. The Navy failed “to assure that human health and the environment are being protected  
 5 by the remedial action being implemented,” in its *Fourth* FYR. As described above, the Navy did not  
 6 properly adopt its 2006 Remediation Goals and then improperly applied them to each subsequent ROD  
 7 and *FYR*.

8 183. Since 2006, the Navy has refused to update its cleanup standards despite repeated  
 9 demands from EPA, significant changes in EPA’s radiological PRGs calculators, which make the 2006  
 10 RGs even more scientifically unsound, and advances in scientific knowledge about the risks of  
 11 radiation.

12 184. EPA’s default Preliminary Remediation Goals have been updated, most recently in  
 13 2023. Following is a chart comparing the EPA 2023 default soil PRGs and the remedial goals the Navy  
 14 adopted in 2006 and continues to use. The EPA default PRGs are orders of magnitude more protective  
 15 than the Navy’s remedial goals.

16 **SOIL RELEASE CRITERIA COMPARISON (Residential)**

<u>Radionuclide</u>	<u>HPNS (2006)</u>	<u>EPA 2/20/23</u>
Americium-241	1.36	.4800
Cesium-137	0.113	.0401
Cobalt-60	0.0361	.0285
Europium-152	0.13	.0384
Europium-154	0.23	.0467
Plutonium-239	2.59	.4450
Radium-226	1.0	.00192
Strontium-90	0.331	.00477
Thorium-232	1.69	.00170
Tritium	2.28	no value listed
Uranium 235+D	0.195	no value listed

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25 185. In its *Fourth* FYR, the Navy’s violations of the FFA include, but are not limited to:

- 26 a. Failing to follow CERCLA guidance that requires that risk characterizations use  
 27 the most current toxicity data to update both soil and building remedial goals.



1 EPA repeatedly asked the Navy to update its radiological PRGs to use current  
2 toxicity data; the Navy has not done so;

- 3 b. Failing to consider cumulative risk from all radionuclides as a whole, and from  
4 radionuclides and chemical contamination combined. The Navy has indefinitely  
5 deferred doing so until the property is released for development, some unknown  
6 future time; and
- 7 c. Failing to justify the use of ICs in light of NCP requirements and failing to  
8 provide a realistic plan for the Navy's use of ICs to be "enforced" through deed  
9 restrictions. The Navy has failed to provide a realistic plan to monitor, maintain,  
10 and repair such controls in its *FYRs*, thereby failing to demonstrate such ICs will  
11 continue to meet the Navy's statutory duty to ensure protectiveness of human  
12 health now and in the future. It is unreasonable to assume ICs will be effective if  
13 enforced merely by deed notices.

14 186. EPA commented to the *Draft Fourth FYR* that the Navy's protectiveness determinations  
15 were not consistent with EPA guidance. EPA determined that the *Draft Fourth FYR* "cannot support  
16 any conclusions about protectiveness or completeness of the remedy."

17 187. The Navy did not respond to EPA's requests to correct the *Draft Fourth FYR's*  
18 protectiveness determinations. It merely revised the *Fourth FYR* to include a statement that it would  
19 "evaluate additional data collected" during retesting to ensure the remedies are protective. It also stated  
20 that the Navy was in the "process" of ensuring that the radiological remedies were "being implemented  
21 as intended" and "conducting a long-term protectiveness evaluation" of the remedial goals. It  
22 "anticipated that the radiological rework will be **completed prior to the next Five-Year Review,**" that  
23 is, the *Fifth FYR* (emphasis added).

24 188. The Navy's actions and inactions in its *Fourth FYR*, described above are not in  
25 accordance with CERCLA, the NCP, and EPA guidance. As such, they violate the FFA and fail to  
26 ensure protection of human health and the environment as required by CERCLA and the NCP. In  
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1 addition, they are arbitrary, capricious, an abuse of discretion and not otherwise in accordance with  
2 law.

3 189. Without acknowledging its *Fourth FYR* failed to comply with CERCLA's requirement  
4 to ensure protectiveness of human health and the environment on a continuing basis, in August 2019,  
5 without legal authority, the Navy published a series of three *addenda* to the *Fourth FYR* purporting to  
6 reevaluate its radiological RGs.

7 190. However, the *addenda* failed to do as EPA requested; they did not recalculate the PRGs  
8 using the most current toxicity data.

9 191. On or about October 10, 2019, the Navy released its *2019 Building Addenda*. It failed to  
10 assure that the remedial goals are protective of human health and the environment.

11 192. On or about August 20, 2020, EPA transmitted *EPA Review of Navy Draft Evaluation*  
12 *of Radiological Remediation Goals for Onsite Building* to the Navy, stating, “[W]e cannot concur  
13 with the Navy’s conclusions that the radiological building RGs remain protective of human  
14 health.” (Emphasis added.)

15 193. On or about October 10, 2019, the Navy also published its *2019 Soil Addendum*, which  
16 relied entirely on RESRAD-Build calculations; it did not reference or use EPA’s soil PRG calculator.

17 194. On or about November 15, 2019, EPA sent the Navy the *EPA Review of the Draft*  
18 *Addendum to the Fourth Five Year Review Evaluating Radiological Remediation Goals for Soil*, a  
19 comment letter unambiguously stating the *2019 Soil Addendum* failed to meet its obligation to assure  
20 protectiveness: “[A]t this time, EPA cannot verify that the soil radiological remediation goals are  
21 protective of human health for long-term protectiveness.” (Emphasis in original).

22 195. In direct contradiction, the Navy posted a statement on its website less than two weeks  
23 later, on November 26, 2019, stating, “EPA recently concurred on the protectiveness determinations in  
24 the Navy’s Five-Year Review.” This statement was false.

25 196. Despite its assertion that its soil protectiveness determinations were valid and EPA-  
26 approved, the Navy sent EPA the *2020 Soil Addendum* on or about June 18, 2020. It purported to use  
27 both RESRAD and the PRG calculator.

1 197. However, risks calculated with this method were not done in accordance with EPA  
2 guidance. For example, the Navy acknowledged that its remedial goal for cobalt-60, 0.0361 pCi/g,  
3 translates to an excess lifetime cancer risk of 1.7 in a million, nearing twice EPA’s “starting point” for  
4 protectiveness, 1 in a million. The Navy has not publicly cited any site-specific facts justifying  
5 lowering the risk from 1 in a million.

6 198. The Navy has now released its *Draft Fifth FYR*. Public comment closed on May 7, 2024  
7 without updating the PRGs. As currently written, it is not in accordance with CERLCA, the NCP, and  
8 EPA guidance, and as such it violates the FFA and the law. It must be revised to comply with the law  
9 and the FFA.

## 10 2. **The Fourth FYR Did Not Assure Long-term Protectiveness.**

11 199. The *Fourth FYR* failed to comply with CERCLA’s straight-forward requirement that  
12 the Navy “assure that human health and the environment **are being protected** by the remedial action  
13 being implemented.” (Emphasis added). An agency regulation or guidance document cannot modify or  
14 eliminate this clear statutory mandate.

15 200. Assurance is binary — either it is protective, or it is not. “Are being protected” means in  
16 the present tense, not in some ill-defined future.

17 201. A completed remedial action is “protective” if it meets EPA-approved remedial goals.  
18 RGs are calculated to provide long-term protectiveness for human health and the environment  
19 appropriate to the intended use of the property.

20 202. Not only are the 2006 RGs not protective of human health and the environment, none of  
21 the remedies in radiologically impacted Parcels can be considered protective until and unless the Navy  
22 retests one hundred percent (100%) of TtEC’s fraudulent and QA/QC-deficient work to ensure that the  
23 full extent of building contamination and the full horizontal and vertical extent of soil contamination  
24 has been reliably determined and remediated.

25 203. Currently, the Navy is retesting only one-third of TtEC’s soil work; that is only one-  
26 third of the work necessary to demonstrate the soil remedy ensures protectiveness.

27 204. In fact, the one-third retesting, as flawed as it is, provides conclusive evidence that the  
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1 remedy is **not** protective. As stated above, Parcel G retesting using EPA-approved methods found 23  
2 samples from 9 different trench units exceeding the Sr-90 RGs. Remedial goal exceedances are **not**  
3 protective.

4 205. Retesting has also found discreet radioactive objects in Parcels B and C. It is impossible  
5 for the Navy to represent that the two-thirds of soil it has no intention of retesting is free of widespread  
6 radiological contamination, as was found in Parcel G, and/or radioactive objects like those found in  
7 Parcels B and C.

8 206. The Navy has yet to publicly release any reports on building retesting.

9 207. The *Final Fourth FYR* stated the radiological remedies would be protective sometime in  
10 the future, “upon completion.” It failed to document any deficiencies identified during the review. Nor  
11 did it recommend specific actions to ensure that the remedy will be protective. Instead, without factual  
12 or legal justification, the Navy gave itself a pass, stating it would evaluate protectiveness by the **next**  
13 five-year review.

14 208. However, the *draft Fifth FYR* again fails to state the remedies are protective. Instead, it  
15 includes only vague promises that they “will be protective” or they are “short term protective,”  
16 ignoring the long-term. Unless corrected in the final *Fifth FYR*, the Navy will not provide credible  
17 protectiveness determinations in accordance with CERCLA, the NCP, and EPA guidance, effectively  
18 negating the entire purpose of CERCLA *FYRs*.

19 209. Refusing to clearly articulate that the remedies for HPNS are **not** protective and require  
20 more remediation illustrates the Navy’s true position. It considers remedial actions at HPNS to be  
21 complete, despite not retesting 100% of TtEC’s work. The only way it can do so is to rely on TtEC’s  
22 discredited data.

23 210. EPA has failed to enforce CERCLA, the NCP and the FFA regarding the Navy’s Five  
24 Year Reviews.

25 211. The actions of the Navy and EPA are not in accordance with CERCLA, the NCP and  
26 EPA guidance. These actions are also violations of the FFA, failures to ensure protection of human  
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1 health and the environment, and are arbitrary, capricious, an abuse of discretion and not otherwise in  
2 accordance with the law.

3 **3. The Navy Has Prevented Meaningful Public Comment on Its FYRs.**

4 212. The Navy has consistently failed to act in good faith and has withheld information  
5 needed to provide meaningful public comment on its *FYRs* and other aspects of the CERCLA and NCP  
6 remedy selection process.

7 213. TtEC's fraud was discovered in 2012. The *Third FYR* never mentioned it despite being  
8 published nearly a year after the fraud's discovery.

9 214. The *Draft Fourth FYR*, issued on July 9, 2018, continued to mislead the public. It did  
10 not include the word "fraud" or reference it. It failed to describe TtEC's investigation, its 2014  
11 *Anomalous Samples Report*, the Navy's data review results, the EPA's data review results, or that all  
12 TtEC's data had been discarded.

13 215. EPA and public comments to the *Draft Fourth FYR* criticized the Navy's failure to  
14 address the fraud. For example, a September 21, 2018, EPA comment stated that the *Draft Fourth FYR*  
15 did not adequately discuss the effect of TtEC's "manipulation and/or falsification" on the  
16 protectiveness of the radiological remedies.

17 216. Only after these comments did the Navy include a statement in the *Final Fourth FYR*  
18 that a significant portion of the radiological survey and remediation work was unreliable. Even so, the  
19 Navy still stated in the *Final Fourth FYR* that the remediation at Parcel G "was completed in 2011."  
20 The Navy failed to explain the contradiction between claiming the remediation was "completed" while  
21 simultaneously admitting that the data "completion" relied on was unreliable.

22 217. The *Fourth FYR* misled the public about protectiveness. It claimed the remedy would be  
23 protective in future but failed to even acknowledge a retesting effort was necessary.

24 218. The Navy also violated EPA guidances requiring responses to comments. In 2018,  
25 Greenaction submitted significant, detailed comments to the *Draft Fourth FYR* about the improper  
26 remedial goals and other radiological remediation deficiencies. Greenaction also submitted significant  
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1 comments about the Navy's insufficient discussion of the impact global warming will have on the  
2 Shipyard remedies.

3 219. The Navy failed to respond to Greenaction's comments, as well as comments made by  
4 other interested parties, in violation of the FFA and EPA guidance.

5 220. The *Addenda* to the *Fourth FYR* also indicate that the Navy does not take public  
6 comment seriously. As there is no legal authorization for *Addenda*, there is also no legal requirement  
7 that the Navy respond to comments to *Addenda*. By publishing *Addenda* long after the comment period  
8 for *Fourth FYR* closed, the Navy barred the public from making informed comments on the *Fourth*  
9 *FYR*. It also avoided its obligation to respond when parties like Greenaction made comments to the  
10 *Addenda*.

11 221. The Navy's actions in denying full public participation are not in accordance with  
12 CERCLA, the NCP, and EPA guidance. They violate the FFA, they violate requirements under  
13 CERCLA and the NCP, and are also arbitrary, capricious, an abuse of discretion and not otherwise in  
14 accordance with law.

15 222. Unfortunately, the Navy's *Draft Fifth Five Year Review* continues to mislead the public.  
16 Among other things, it fails to acknowledge:

- 17 a. TtEC's data was discarded.
- 18 b. The Navy proposed and EPA approved three (3) retesting workplans that require  
19 the Navy to do one-third resampling of TtEC's soil work unless contamination is  
20 found, at which point 100% retesting would be required.
- 21 c. The Navy found 23 Sr-90 exceedances in Parcel G soil but withheld the  
22 information from the public. For example, in public meetings on October 21,  
23 2021, and August 22, 2022, the Navy presented slides omitting the Sr-90  
24 exceedances, denying the public information to make meaningful comments on  
25 the remedial action.
- 26 d. The Navy is attempting to invalidate the valid Sr-90 sampling results using a  
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1 method not approved by EPA, which the Navy has had to modify twice.

2 e. The Navy has announced plans to release a “verification study” of the Sr-90  
3 results, approximately two months after the comment period for the *Draft Fifth*  
4 *FYR* closes; the comment closed on May 7, 2024, while the Navy will not release  
5 the study until July 2024. Without this study, members of the public do not have  
6 the information they need to provide meaningful comments on the protectiveness  
7 of remedial actions.

8 f. The Navy found radioactive objects found in Parcels B and C.

9 223. If the Navy does not correct these deficiencies in its *Final Fifth FYR*, the *Fifth FYR* also  
10 will not be in accordance with CERCLA, the NCP and EPA guidance, and will violate the FFA.

11 **4. The *Fourth FYR* Did Not Properly Account for Climate Change.**

12 224. The Navy did not properly consider or address climate change in its *Fourth FYR*. It used  
13 outdated sea-level rise, Bay-level rise and groundwater rise data which underestimated their impact on  
14 the selected remedies.

15 225. The *Fourth FYR* estimated three future greenhouse gas emission scenarios. The first  
16 estimated that in 2100, the likely sea-level rise would range from 1.6 to 3.4 feet. The second estimated  
17 sea level rise ranging from 1.2 to 2.7 feet. The third estimated sea level rise ranging from 1.0 to 2.4  
18 feet. Based on these estimates, the *Fourth FYR* considered “a contingency of up to a 3-foot increase in  
19 sea level” in designing the “crest elevation” for Parcels E and E-2, the industrial landfill. “No other  
20 information has been identified to suggest that the remedies may not be protective of human health or  
21 the environment,” the *FYR* concluded.

22 226. Up-to-date data evidenced much greater sea-level rise than the Navy considered. For  
23 example, according to the 2018 *State of California Sea-Level Rise Guidance*, “Sea level rise will reach  
24 5.7 to 6.9 feet by 2100 under the medium to high risk aversion scenario,” and may reach as much as  
25 10.2 feet by 2100 under another scenario.

26 227. The San Francisco Bay Conservation and Development Commission’s (“BCDC”)  
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1 *Adapting to Rising Tides Bay Area Sea Level Rise Analysis and Mapping Project* outlined a range of  
2 likely sea level rise scenarios. The upper bound of these scenarios was 5.5 feet sea level rise by 2100.  
3 It also considered a 100-year extreme tide. A 5.5 feet sea level rise with a 100-year extreme tide  
4 would create a tide 9 feet above Mean Higher High Water (“MHHW,” the average of the high-water  
5 mark of each tidal day observed over the National Tidal Datum Epoch).

6 228. The Navy also did not discuss how the cap and slurry walls at Parcel E-2 will be  
7 adequate to ensure protection of human health and the environment given these rising sea, Bay, and  
8 groundwater levels.

9 229. Accordingly, the risk of remedy failure caused by sea-level rise is significantly higher  
10 than the unreasonably low assumptions made by the Navy. Rising Bay water and the concomitant rise  
11 in groundwater may inundate contamination left on the Shipyard, mobilizing, and spreading it and  
12 potentially allowing it to contaminate the Bay itself and impact recreational and commercial fishing.  
13 This is particularly dangerous in Parcel E-2.

14 230. The Navy’s failure to consider up-to-date data is not in accordance with CERCLA, the  
15 NCP, and EPA guidance. The Navy’s actions and inactions violate the FFA, fail to ensure protection of  
16 human health and the environment as mandated by CERCLA, and are arbitrary, capricious, an abuse of  
17 discretion and not otherwise in accordance with law.

18 **I. The Navy Has Not Properly Established an Administrative Record at HPNS.**

19 231. CERCLA requires that the Navy establish an administrative record of documents,  
20 including “the documents that form the basis of a response action.” It must be accessible to the public  
21 “at or near” the site.

22 232. The NCP contains regulations detailing preparation of the administrative record and  
23 how it is to be made available to the public to facilitate meaningful participation in the remedy  
24 selection process, at 40 CFR 300.430.

25 233. EPA has published detailed guidance on preparation of the administrative record and  
26 promoting meaningful public participation in CERCLA actions, including the 2010 guidance, *Revised*  
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1 *Guidance on Compiling Administrative Records for CERCLA Response Actions.*

2 234. The Navy has failed to properly establish an administrative record “at or near” the  
3 HPNS clean-up. There used to be an administrative record located “at or near” the Shipyard, which the  
4 Navy referred to as “the Shipyard Site Trailer.” However, on a date unknown to Greenaction, the Navy  
5 removed that location and did not replace it.

6 235. The Navy currently states the administrative record is located at the San Francisco  
7 Public Library, Government Information Center, at 100 Larkin Street. However, it is haphazardly  
8 organized, making location of specific documents difficult. It does not include all the documents the  
9 Navy has relied on in making decisions regarding its response actions at HPNS.

10 236. These actions by the Navy violate CERCLA, the NCP, the FFA, and EPA guidance.  
11 Such violations fail to meet CERCLA’s requirements for public participation and are arbitrary,  
12 capricious, an abuse of discretion and not otherwise in accordance with law.

13 **FIRST CLAIM FOR RELIEF**

14 **Violations of 42 U.S.C. § 9569(a)(1) – Violations of the Retesting Agreements; Conditions,**  
15 **Requirements, and/or Orders Which Have Become Effective under the FFA**

16 237. Greenaction incorporates by reference all paragraphs of this Complaint set out above as  
17 if fully set forth herein.

18 238. Greenaction is a “person” as defined by 42 U.S.C. § 9601(21).

19 239. The Navy and EPA are “persons” as defined by 42 U.S.C. § 9601(21).

20 240. Citizen suits are authorized under 42 U.S.C. § 9659(a)(1) for “violation of any standard,  
21 regulation, condition, requirement, or order which has become effective pursuant to this chapter  
22 (including any provision of an agreement under section 9620 of this title, relating to Federal  
23 facilities).” (Parenthesis in original.)

24 241. The Navy proposed and EPA approved three related work plans to retest TtEC’s work:  
25 the June 2018, *Final Parcel G Removal Site Evaluation Work Plan*; the April 2022, *Final Parcel B*  
26 *Removal Site Evaluation Work Plan*; and the August 2022, *Final Parcel C Removal Site Evaluation*  
27 *Work Plan* (collectively, the “*Retesting Work Plans*”).



1 for “any hazardous substances, pollutants, or contaminants remaining at the site.” 42 U.S.C. § 9621(c).  
2 This is a non-discretionary duty under CERCLA.

3 253. The Navy published its *Third FYR* on or about November 8, 2013. The *Fourth FYR* was  
4 due no later than November 8, 2018.

5 254. The *Fourth FYR* was not published within the statutory deadline.

6 255. The Navy violated 42 U.S.C. § 9621(c) and 40 C.F.R. 300.430 by:

- 7 a. Publishing the *Fourth FYR* on or about July 31, 2019, approximately nine (9)  
8 months after the statutory deadline of November 8, 2018.
- 9 b. Publishing its *Draft Addendum to the Five-Year Review, Evaluation of*  
10 *Radiological Remedial Goals for Soil* on or about August 8, 2019,  
11 approximately nine (9) months after the statutory deadline.
- 12 c. Publishing its *Draft Addendum to the Five-Year Review, Evaluation of the*  
13 *Radiological Remedial Goals for Buildings* on or about October 10, 2019, nearly  
14 a year after the statutory deadline.
- 15 d. Publishing its *Addendum to the Five-Year Review, Evaluation of Radiological*  
16 *Remedial Goals for Soil* on or about June 18, 2020, approximately twenty (20)  
17 months after the statutory deadline.

18 256. The Navy has never publicly asserted any factual or legal basis for violating the clear  
19 and unambiguous CERCLA Five Year Review deadlines.

20 257. The *Fifth FYR* was due no later than November 8, 2023. The Navy’s failure to publish  
21 its *Fifth FYR* by the November 8, 2023, deadline violated the clear non-discretionary deadlines in 42  
22 U.S.C. § 9621(c), as well as the FFA by not being in accordance with CERCLA, the NCP, and EPA  
23 guidances.

24 258. The Navy published a *Draft Fifth FYR* on or about January 26, 2024. The Navy has  
25 publicly stated it plans to release the final *Fifth FYR* in July 2024, effectively granting itself a *de facto*  
26 extension – continually in the future – to its *FYRs* which violates the clear and unambiguous non-  
27

1 discretionary deadlines in 42 U.S.C. § 9621(c), as well as the FFA, by not being in accordance with  
2 CERCLA, the NCP, and EPA guidances.

3 **THIRD CLAIM FOR RELIEF**

4 **Violations of 42 U.S.C. § 9659(a)(2) - Violations of Non-Discretionary CERCLA Duties**

5 **A. The Navy and EPA Violated CERCLA and the NCP by Selecting and Approving**  
6 **Remedies Not Protective of Human Health and the Environment.**

7 259. Greenaction incorporates by reference all paragraphs of this Complaint set out above as  
8 if fully set forth herein.

9 260. Greenaction is a “person” as defined by 42 U.S.C. § 9601(21).

10 261. The Navy and EPA are “persons” as defined by 42 U.S.C. § 9601(21).

11 262. The Navy and EPA are officers of the United States as used in 42 U.S.C. § 9659(a)(2).

12 263. Greenaction may commence a civil action against any officer of the United States  
13 where there is “a failure of the President or of other such officer to perform any act or duty under this  
14 Act, including an act or duty under § 120 (relating to federal facilities), which is not discretionary,”  
15 pursuant to 42 U.S.C. § 9659(a)(2) (parenthesis in original).

16 264. The Navy and EPA have failed to perform non-discretionary duties under CERCLA.

17 **1. CERCLA Establishes a Non-Discretionary Duty that Cleanups Must Be**  
18 **Protective of Human Health and the Environment.**

19 265. CERCLA establishes a mandatory duty that cleanups be protective of human health and  
20 the environment. 42 U.S.C. § 9621(b)(1) states, “The President **shall** select a remedial action that is  
21 protective of human health and the environment.” (Emphasis added.)

22 266. The NCP, at 40 C.F.R. § 300.430(a)(i), reiterates this duty: “The national goal of the  
23 remedy selection process is to select remedies that are protective of human health and the environment,  
24 that maintain protection over time, and that minimize untreated waste.”

25 267. The NCP, at 40 C.F.R. § 300.430(e)(2)(i), requires, “Remediation goals shall establish  
26 acceptable exposure levels that are protective of human health and the environment.”

27 268. Pursuant to 40 C.F.R. § 300.430(f)(1)(ii)(A), “Each remedial action selected shall be  
28

1 protective of human health and the environment.”

2 269. Through their actions and inactions, the Navy and EPA have failed to take response  
3 actions which:

- 4 a. ensure protection of human health and the environment;
- 5 b. accurately characterize the extent of contamination at HPNS; and
- 6 c. select protective remedial goals.

7 **2. The Navy Violated CERCLA By Not Preparing the Administrative Record**  
8 **in Accordance 42 U.S.C. §§ 9613 and 9617**

9 270. 42 U.S.C § 96113(k)(1) states, “The President shall establish an administrative record  
10 upon which the President shall base the selection of a response action. The administrative record shall  
11 be available to the public at or near the facility at issue.”

12 271. Pursuant to 40 C.F.R. § 300.800, a responsible party “shall establish an administrative  
13 record that contains the documents that form the basis for the selection of the response action. The lead  
14 agency shall compile and maintain the administrative record in accordance with this subpart.”

15 272. The Navy violated administrative record requirements, including but not limited to  
16 CERCLA, 42 U.S.C. § 9613(k), and the NCP, 40 C.F.R. §§ 300.800. Among other violations, the  
17 Navy violated administrative record requirements by failing to:

- 18 a. “Compile and maintain” an administrative record “at or near” the Shipyard,  
19 pursuant to 42 U.S.C. § 9613(k)(1) and 40 C.F.R. § 300.805.
  - 20 i. The Navy failed to establish a complete administrative record that  
21 provides the public with the information on which the Navy and EPA  
22 “base[d] the selection of a response action” pursuant to 42 U.S.C. §  
23 9613(k)(1) and 40 C.F.R. § 300.810.
  - 24 ii. The Navy failed to provide a public comment period on the selection of  
25 the remedial action, including accepting comments, responding to them,  
26 and including them in the administrative record as required by 42 U.S.C.  
27 § 9613(k)(2)(B) and 40 C.F.R. § 300.815(b).

1                   iii.       Since the Navy adopted remedial goals in a removal action rather than a  
2                                           remedial action, it precluded comments to the 2006 remedial goals and  
3                                           prevented commenters from obtaining responses to comments, in  
4                                           violation of § 300.430(f)(3).

5                   b.       Consider comments submitted after the close of the comment period that “could  
6                                           not have been submitted during the public comment period and substantially  
7                                           support the need to significantly alter the response actions” pursuant to 42  
8                                           U.S.C. 9613(k)(2)(B) and 40 C.F.R § 300.825(c).

9                   i.       The Navy failed to address comments from EPA and the public  
10                                           concerned about the impacts of TtEC’s fraudulent data on the remedial  
11                                           action.

12                   ii.       The Navy failed to address comments from EPA and the public  
13                                           concerned with the ROD’s out-of-date remedial goals for buildings and  
14                                           soil.

15                                           **FOURTH CLAIM FOR RELIEF**

16                   **Violations of 42 U.S.C. § 9659(a)(1) - Violations of the Federal Facilities Agreement (FFA)**

17                   **A.       The Navy Failed to Act in Accordance with CERCLA, the NCP and EPA**  
18                   **CERCLA Guidances, Violating the FFA.**

19                   273.   Greenaction incorporates by reference all paragraphs of this Complaint set out above as  
20                   if fully set forth herein.

21                   274.   Greenaction is a “person” as defined by 42 U.S.C. § 9601(21).

22                   275.   The Navy and EPA are “persons” as defined by 42 U.S.C. § 9601(21).

23                   276.   Citizen suits are authorized under 42 U.S.C. § 9659(a)(1) for “violation of any standard,  
24                   regulation, condition, requirement, or order which has become effective pursuant to this chapter  
25                   (including any provision of an agreement under section 9620 of this title, relating to Federal  
26                   facilities).” (Parenthesis in original.)

27                   277.   42 U.S.C. § 9621 mandates that the President “shall select appropriate remedial actions”

1 which are “in accordance with this section and, **to the extent practicable, the national contingency**  
2 **plan.**” (Emphasis added.)

3 278. Section 6.1 of the FFA states:

4 The Parties agree to perform the tasks, obligations and responsibilities described in this  
5 Section **in accordance with CERCLA and CERCLA guidance and policy; the NCP;**  
6 pertinent provisions of RCRA and RCRA guidance and policy; Executive Order 12580;  
7 applicable State laws and regulations; **and all terms and conditions of this Agreement**  
8 including documents prepared and incorporated in accordance with Section 7  
9 (Consultation). (Parenthesis in original, emphasis added.)

10 279. CERCLA response actions by the Navy and EPA at this site, described above, which  
11 violate CERCLA and the NCP, constitute violations of the FFA in that they are not “in accordance  
12 with” CERCLA and not in accordance, “to the extent practicable,” with the NCP.

13 **1. CERCLA Establishes a Non-Discretionary Duty that Sites Must Be**  
14 **Characterized Through Remedial Investigation and Feasibility Study**  
15 **(RI/FS).**

16 280. CERCLA and the NCP establish a mandatory duty to conduct a Remedial Investigation  
17 and Feasibility Study (RI/FS) to characterize the site and select an appropriate remedy. 40 C.F.R. §  
18 300.430(d)(1) states:

19 The purpose of the remedial investigation (RI) is to collect data necessary to adequately  
20 characterize the site for the purpose of developing and evaluating effective remedial  
21 alternatives. To characterize the site, the lead agency shall, as appropriate, conduct field  
22 investigations, including treatability studies, and conduct a baseline risk assessment.

23 281. 40 C.F.R. § 300.430(d)(2) states, “The lead agency **shall** characterize the nature of and  
24 threat posed by the hazardous substances and hazardous materials and gather data necessary to assess  
25 the extent to which the release poses a threat to human health or the environment. . . .” (Emphasis  
26 added.)

27 282. EPA CERCLA guidances, including but not limited to its *RI/FS Guidance*, require  
28 characterization of the full vertical and horizontal extent of hazardous contamination, which does not  
overlook any possible contamination.



1                   **2.     The HPNS RI/FS Failed to Characterize the Full Horizontal and Vertical**  
2                   **Extent of Contamination.**

3                   283.    Rather than characterize the breadth and depth of contamination through a  
4 comprehensive RI/FS, as required by EPA guidance and the FFA, the Navy applied a “spill model” to  
5 all Parcels.

6                   284.    The “spill model” was not then and is not now authorized under CERCLA, the NCP,  
7 the FFA, or EPA guidance.

8                   285.    The “spill model” assumed contamination resulted from discreet, well-delineated spills  
9 rather than assuming there might be widespread general contamination. These assumptions violated  
10 EPA guidances, including but limited to its *RI/FS Guidance*. The Navy has cited no factual or legal  
11 justification for substituting the “spill model” for full vertical and horizontal characterization of  
12 contamination required by EPA guidance.

13                   286.    Without delineating the full vertical and horizontal extent of contamination, the Navy  
14 cannot assure it has identified and remediated all contamination above a remedial goal, violating  
15 CERCLA’s mandatory duty that the cleanup be protective of human health and the environment, and  
16 violating the NCP, and the FFA.

17                   **3.     The Navy Improperly Limited the Radionuclides to Be Studied, Violating**  
18                   **CERCLA, the NCP and the FFA**

19                   287.    The Navy violated 40 C.F.R. 300.430(d)(2), by among other things:

- 20                   a.     Adopting remedial goals for only 11 radionuclides in the 2006 *Basewide*  
21                   *Removal Memo*, one third of the 33 “Radionuclides of Concern” identified by  
22                   the HRA, without sufficient factual and rational basis for excluding them.
- 23                   b.     Failing to fully and accurately characterize the site as “impacted” or “non-  
24                   impacted.”
- 25                   c.     Continuing to employ the “spill model” as the basis of site characterization,  
26                   despite it being demonstrably wrong at more than 10 percent of the sites.
- 27                   d.     Failing to consider that radioactive sandblast grit and smoke from burning  
28                   radioactive fuel blown around base by the Bay area’s swirling winds contributed

1 to radioactive contamination.

- 2 e. Improperly estimating background levels of radiation. The Navy failed to  
3 demonstrate the sites it selected for background sampling were not  
4 radiologically impacted.
- 5 f. The Navy and EPA improperly agreed to treat radium-226 differently than all  
6 other radionuclides, setting the remedial goal for radium-226 at “1 pCi/g above  
7 background.” This is not a risk-based remedial goal, as required by CERCLA,  
8 the NCP and the FFA. Neither the Navy nor EPA have stated any facts or any  
9 rational basis for this agreement. This agreement violates CERCLA, the NCP  
10 and the FFA.

11 **4. The Navy Failed to Use EPA’s PRG Calculators and Improperly Adopted**  
12 **Remedial Goals Not Protective of Human Health and the Environment;**  
13 **EPA Improperly Approved**

14 288. The NCP authorized EPA to set a CERCLA “risk range.” EPA set the “starting point”  
15 of risk to be one excess lifetime cancer per million people, or in scientific notation,  $1 \times 10^{-6}$ . Under  
16 certain site-specific conditions, EPA may approve a risk as high as one excess cancer in 10,000, or  $1 \times$   
17  $10^{-4}$ , making the CERCLA risk range between  $1 \times 10^{-6}$  and  $1 \times 10^{-4}$ .

18 289. EPA established a system for calculating risk from cancer-causing contaminants to  
19 human health, called the Preliminary Remediation Goal (“PRG”) Calculators; one for soil and another  
20 for buildings. EPA guidance requires using PRG Calculators to set remedial goals within the CERCLA  
21 risk range.

22 290. The Navy improperly adopted remediation goals in its 2006 *Basewide Removal Action*  
23 *Memorandum* that were not protective of human health and the environment, in violation of CERCLA,  
24 the NCP and the FFA.

25 291. The Navy failed to use EPA PRGs to establish remedial goals for soil within the  
26 CERCLA risk range. It failed to support remedial goals with substantial factual evidence and reasoned  
27 analysis. For example, the Navy stated its soil remedial goals were drawn from “EPA PRGs for two  
28

1 future use scenarios,” but failed to describe them, let alone demonstrate the scenarios were applicable  
2 to HPNS.

3 292. The Navy failed to use EPA’s Building PRG Calculator in setting remedial goals for  
4 buildings, as required by EPA guidance. Instead, the Navy used non-EPA-approved methods,  
5 including the AEC’s *Regulatory Guide 1.8*, and RESRAD-Build Version 3.3. Both used toxicity data  
6 that was outdated in 2006. For example, RESRAD was based on a maximum dose of 25 millirems of  
7 radiation per year (“25 mrem/year”), whereas since 1997, EPA guidance has stated that doses above 15  
8 mrem/year were not protective under CERCLA.

9 **5. The Navy and EPA Applied the Improper RGs To All Subsequent  
10 Remedial Actions.**

11 293. The Navy and EPA applied its improperly calculated RGs from the *2006 Basewide  
12 Removal Action Memorandum* to all subsequent **remedial** actions at the Shipyard. RODs are required  
13 to confirm that the selection was conducted in compliance with CERCLA and, as much as practicable,  
14 with the NCP pursuant to 42 U.S.C. § 9621(a). The Navy proposed and EPA approved applying  
15 improper RGs to all subsequent remedial actions without regard to each Parcel’s individual  
16 characteristics and without stating any factual or rational justification for doing so or explaining why  
17 compliance with the NCP was not practicable.

18 **6. The Navy Failed to Update the Improper PRGs In All Subsequent Cleanup  
19 Documents, Including FYRs**

20 294. Since 2006, the Navy has failed to update PRGs, including for the 2008, 2013, and 2019  
21 *FYRs*, in violation of 42 U.S.C. § 9621. Among other violations, the Navy failed to:

- 22 a. Respond to EPA’s repeated demands that it update the building and soil PRGs.  
23 Most recently, EPA commented to the *Draft Fourth FYR* that the Navy’s  
24 protectiveness determinations were not consistent with EPA guidance.  
25 b. Rather than complying, the Navy improperly delayed its protectiveness  
26 determination, stating, “It is anticipated that the radiological rework will be  
27 completed prior to the next Five-Year Review,” i.e., the *Fifth FYR*.

1 295. EPA failed to enforce the FFA regarding updating PRGs.

2 296. The Navy violated 40 C.F.R. § 300.430(a)(1)(iii). Among other things, the Navy:

- 3 a. Improperly included institutional controls in its remedy. They are inadequate to  
4 ensure long-term protectiveness, as the Navy has failed to include any plan to  
5 enforce the controls in future through inspection and maintenance.
- 6 b. Improperly used these controls to turn off inputs for home grown produce in its  
7 risk calculation.
- 8 c. Improperly adopted the use of “durable covers,” as they will have to be  
9 destroyed to develop the Shipyard. The Navy has ignored this fact in its risk  
10 calculations, violating CERCLA, the NCP and the FFA.

11 297. Despite the above-described deficiencies, EPA improperly approved the 2006 remedial  
12 goals and their application to subsequent RODs, violating CERCLA, the NCP and the FFA.

13 **B. The Navy Failed to Act in Accord with the FFA By Not Complying with EPA**  
14 **Guidances.**

15 298. The Navy violated the FFA by failing to act “in accordance with” EPA CERCLA  
16 guidances, including but not limited to:

- 17 a. *Guidance for Conducting Remedial Investigations and Feasibility Studies Under*  
18 *CERCLA*. Among other violations, the Navy failed to:
- 19 1. Conduct a proper site characterization to determine the nature and extent  
20 of contamination considering the historical record, relying instead on the  
21 *HRA*’s incorrect and uncorrected description of the facts. As a result, the  
22 Navy sampled only approximately 10% of the Shipyard’s 882 sites.
  - 23 2. Follow a sampling approach that defined contamination in “both vertical  
24 and horizontal directions.”
  - 25 3. Consider factors that may have caused contaminants to migrate from the  
26 release source, such as the Shipyard’s swirling winds, which spread  
27 radioactive sandblast grit and radioactive smoke around the Shipyard,

1 contributing to contamination.

2 b. *Data Quality Objectives for Remedial Response Activities, Appendix C Sampling*  
3 *Considerations*. Among other violations, the Navy failed to:

- 4 1. Do comprehensive sampling of the entire site “to ensure that no area of  
5 the site is overlooked.”  
6 2. Conduct sampling to “provide complete coverage of the area of interest,”  
7 before making “general inferences” about the site.

8 c. *Risk Assessment Guide for Superfund, Part A*. Among other violations, the Navy  
9 failed to:

- 10 1. Perform a site characterization that fully analyzed the “nature and extent  
11 of threats to human health and the environment.”  
12 2. Determine the potential extent of contamination, including spread of  
13 contaminants from their original sources.  
14 3. Gather information on what contaminants are present in what  
15 concentrations, considering how “the environmental setting . . . may  
16 affect the fate, transport and persistence of the contaminants.”  
17 4. Conduct sampling that considers “routes of potential transport” of  
18 contamination.  
19 5. Assure investigation of contamination is comprehensive, obtaining “data  
20 on concentrations of contaminants in each of the source areas and media  
21 of concern.”  
22 6. Recognize that “because toxicity information may change rapidly and  
23 quickly become outdated,” decision making must be based on “the most  
24 recent information available,” and instead using outdated toxicity data in  
25 making decisions.  
26 7. Accurately estimate the nature, extent, and concentration of  
27

1 contaminants.

2 8. Use “the hierarchy for obtaining toxicity values” for risk based PRGs.

3 d. *Risk Assessment Guidance for Superfund, Part B.* Among other violations, the  
4 Navy failed to:

5 1. Assess the cancer risk for soil and buildings using EPA’s Preliminary  
6 Remediation Goals (“PRGs”) Calculators during analysis and selection  
7 of remedial alternatives.

8 2. Meet the risk range of protectiveness for lifetime cancer risk,  $1 \times 10^{-6}$   
9 (one in a million) and if site specific circumstances justify and regulators  
10 approve, between  $1 \times 10^{-6}$  and  $1 \times 10^{-4}$  (one in 10,000).

11 3. Derive total risk posed for each contaminant and for each exposure  
12 pathway and then calculate cumulative total risk.

13 4. Develop PRGs during the “scoping phase” using default values and then  
14 modifying the PRGs based on site-specific characteristics determined in  
15 the Remedial Investigation.

16 5. Calculate risk based on excess lifetime cancer risk. Instead, the Navy  
17 calculated risk based on dose.

18 6. Use EPA’s Building PRG Calculator (“BPRG”) as the basis for  
19 calculating building remedial goals. Instead, the Navy used *AEC*  
20 *Regulatory Guide 1.86* and RESRAD, methods not approved by EPA.

21 e. *Human Health Toxicity Values in Superfund Risk Assessments.* The Navy failed  
22 to update Preliminary Remediation Goals (“PRGs”) with the most current  
23 toxicity data.

24 f. *PRG User’s Guide, Land Use Descriptions, Equations, and Technical*  
25 *Documentation.* The Navy violated the allowance for exposure pathways to be  
26 switched off in PRG calculations only if “a route of exposure . . . is considered  
27

1 to be unreasonable” at the site, “both currently and in the future.”

2 g. *Radiation Risk Assessment at CERCLA Sites: Q & A*. Among other violations,  
3 the Navy failed to:

- 4 1. Select a remedy consistent with the NCP’s risk range ( $1 \times 10^{-4}$  to  $1 \times 10^{-6}$   
5 lifetime excess cancer risk).
- 6 2. Follow EPA’s direction that “dose recommendations (e.g., guidance such  
7 as DOE orders and NRC regulatory guides) should **not** be used as to-be  
8 considered materials,” when setting remediation goals. (Emphasis  
9 added.)

10 h. *Superfund Preliminary Remediation Goals for Radionuclides in Buildings*  
11 (*BPRG*). The Navy failed to update remedial goals for buildings using the  
12 EPA’s BPRG.

13 i. *Citizen’s Guide to Capping*. Among other violations, the Navy failed to:

- 14 1. Plan for and implement regular inspections, maintenance, and repair to  
15 assure that “durable” covers are not damaged by weather, plant roots,  
16 and human activity.
- 17 2. Assess radiological risk to construction workers during development of  
18 the Shipyard and to future residents since “durable covers” must  
19 necessarily be removed to develop the Shipyard.

20 j. *Draft Technical Guidance For RCRA/CERCLA Final Covers*. The Navy failed  
21 to assume a 30-year lifetime for proposed covers and failed to plan to monitor  
22 and maintain covers for that lifetime.

23 k. *Comprehensive Five-Year Review Guidance*. Among other violations, the Navy  
24 failed to:

- 25 1. Determine whether there have been changes in toxicity or other  
26 contaminant characteristics that need to be investigated; and failed to  
27



1 identify “recent toxicity data and their sources.”

2 2. Investigate whether the exposure assumptions, toxicity data, and cleanup  
3 levels are still valid.

4 3. Recalculate risk assessment to account for changes in standards and/or  
5 toxicity data.

6 4. Investigate the question, “Has any other information come to light that  
7 could call into question the protectiveness of the remedy?”

8 **C. The Navy Violated CERCLA’s Public Participation Requirements**

9 299. 42 U.S.C. § 9617 states, in pertinent part:

10 Before adoption of any plan for remedial action to be undertaken . . . the President or  
11 State, as appropriate, shall take both of the following actions:

12 (1) Publish a notice and brief analysis of the proposed plan and make such plan available  
13 to the public.

14 (2) Provide a reasonable opportunity for submission of written and oral comments and an  
15 opportunity for a public meeting at or near the facility at issue regarding the proposed  
16 plan and regarding any proposed findings under section 9621(d)(4) of this title (relating  
17 to cleanup standards).

18 300. This section continues, “The notice and analysis published under paragraph (1) shall  
19 include sufficient information as may be necessary to provide a reasonable explanation of the proposed  
20 plan and alternative proposals considered.”

21 301. Pursuant to 40 C.F.R. § 300.430, responsible parties like the Navy “shall” conduct  
22 community relations activities to support the selection of the remedy.

23 302. Pursuant to 40 C.F.R. 300.430(f)(2), the agency “shall prepare a proposed plan”  
24 describing the remedial alternatives, proposing a preferred alternative, and summarizing the  
25 information relied on in making the selection. The purpose of the proposed plane is to “provide the  
26 public with a reasonable opportunity to comment on the preferred alternative for remedial action.”

27 303. Among other violations, the Navy failed to perform its non-discretionary duty to  
28 facilitate public involvement on its remedial actions by selecting its 2006 remedial goals without  
properly identifying, proposing, soliciting, and responding to public comments in accordance with the

1 NCP, subparts E and I, in violation of 42 U.S.C. § 9617(b). The Navy failed to allow the public to  
2 provide comments and receive meaningful, credible responses on the selection of the remedial actions  
3 as required by CERCLA, 42 U.S.C. § 9617 and the NCP, 40 C.F.R. § 300.430(f).

4 **FIFTH CLAIM FOR RELIEF**

5 **Violations of 42 U.S.C. § 9613(j)(2) – Actions That Were Arbitrary, Capricious, and Not in**  
6 **Accordance with Law**

7 304. Greenaction hereby realleges and incorporates by reference each allegation contained in  
8 the preceding paragraphs as if fully set forth herein.

9 305. Greenaction is a “person” as defined by 42 U.S.C. § 9601(21).

10 306. The Navy and EPA are “persons” as defined by 42 U.S.C. § 9601(21).

11 307. 42 U.S.C. § 9613(j)(2) authorizes the court to grant relief if “the objecting party can  
12 demonstrate, on the administrative record, that the decision was arbitrary and capricious or otherwise  
13 not in accordance with law.”

14 308. To the extent that the Navy’s and EPA’s decisions in selecting and/or approving  
15 response actions, as described above, were discretionary, they were arbitrary, capricious, and not in  
16 accordance with CERCLA, the NCP and the FFA.

17 **SIXTH CLAIM FOR RELIEF**

18 **Violations of the Administrative Procedure Act (APA)**

19 309. Greenaction hereby realleges and incorporates by reference each allegation contained in  
20 the preceding paragraphs as if fully set forth herein.

21 310. The Navy and EPA are each an “agency” as defined by 5 U.S. Code § 551(1)(E).

22 311. Pursuant to 5 U.S.C. § 706(2)(A), agency actions, findings, and conclusions must not be  
23 arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

24 312. As described above, the actions and inactions by the Navy and EPA at HPNS were  
25 arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. To the extent  
26 their decisions, actions, and inactions in selecting response actions, as described above, were  
27 discretionary, they were arbitrary, capricious, and not in accordance with CERCLA, the NCP and the

1 FFA.

2 313. EPA, as an administrative agency, is required to adhere to its own rules, regulations,  
3 long-standing published national policies, guidances and procedures when making oversight and  
4 remedy selection-related decisions under CERCLA and the NCP, pursuant to the FFA, and when  
5 generally enforcing federal environmental laws it is authorized to administer.

6 314. In violation of its own guidance document, *Guidance for Conducting Remedial*  
7 *Investigations and Feasibility Studies Under CERCLA*, EPA approved the Navy's unlawful and  
8 inadequate Remedial Investigation and Feasibility Study (RI/FS).

9 315. In violation of its own guidance document *Radiation Risk Assessment at CERCLA Sites:*  
10 *Q & A; Risk Assessment Guidance for Superfund, Part B*; and the NCP, 40 C.F.R. § 300.430(e)(2)(i),  
11 EPA approved the unlawful, outdated remediation goals the Navy adopted.

12 316. In violation of its own guidance document, *Human Health Toxicity Values in Superfund*  
13 *Risk Assessments, Superfund Preliminary Remediation Goals for Radionuclides in Buildings*, EPA  
14 failed to enforce the FFA to redress the Navy's failure to update the remediation goals since 2006.

15 317. The EPA's failures to adhere to its own rules, and its deviations from long-standing  
16 published national policies, guidances and procedures without any reasoned explanation, were  
17 arbitrary, capricious, and constituted an abuse of discretion, in violation of 5 U.S.C. § 706(2)(A) of the  
18 APA.

19 318. Pursuant to 5 U.S.C. § 706(2)(A), a declaratory judgement may be issued that EPA's  
20 failure to enforce the FFA by, among other things, approving the Navy's 2006 remedial goals and not  
21 requiring the Navy to update them since they were adopted was unlawful and should be set aside.

22 **PRAYER FOR RELIEF**

23 WHEREFORE, Plaintiff, Greenaction for Health & Environmental Justice, respectfully  
24 requests that this Court:

25 A. Enter a declaratory judgment in favor of Greenaction and against the Navy and EPA  
26 regarding the cleanup of the former HPNS Superfund site for: 1) the Navy's and EPA's violations of  
27

1 CERCLA, the NCP and the FFA; 2) for their failure to perform non-discretionary duties under  
2 CERCLA (42 U.S.C. 9601, et. seq.); and (3) for actions and inactions that are arbitrary, capricious, an  
3 abuse of discretion, and not otherwise in accordance with law.

4 B. Issue an injunction ordering the Navy and EPA to conduct the HPNS cleanup in  
5 compliance with CERCLA, the NCP, and EPA’s CERCLA guidance and policy as required by the  
6 FFA, including but not limited to:

7 a. Implementing the work plans requiring 100% retesting of the work done  
8 by the Navy’s radiological remediation contractor, Tetra Tech, EC, Inc.;

9 b. Redrafting the inaccurate Historical Radiological Assessment (“HRA”)  
10 to correct its errors, so subsequent cleanup planning is based accurate information;

11 c. Faithfully implementing the CERCLA and NCP remedy selection  
12 process established in 40 CFR 300.430 and its associated procedures for all  
13 contaminated Parcels at this site;

14 d. Conducting a new Remedial Investigation and Feasibility Study  
15 (“RI/FS”) based on previously unconsidered information, including the facts of the  
16 Tetra Tech fraud and its impact on the cleanup, and including a new baseline risk  
17 assessment;

18 e. Calculating updated PRGs using EPA’s PRG Calculators, adopting  
19 Remedial Goals (“RGs”) based on the most up-to-date toxicological data, and replacing  
20 the remedial goals adopted in 2006;

21 f. Preparing and publishing new proposed plans and amending the RODs  
22 for all Parcels in accordance with the NCP, including 40 CFR subparts E and I, to  
23 account for new circumstances and information revealed by the new RI/FS process; and

24 g. Considering up-to-date global warming data in evaluating the  
25 protectiveness of the selected remedies in each Parcel and updating of the PRGs and  
26 RGs to account for global warming.

1 C. Issue an injunction to the Navy requiring it to comply with CERCLA's Five Year  
2 Review process as clearly and unambiguously required in the statute to:

3 a. assure that its remedy is protective of human health and the environment  
4 and uses the most recent risk calculations and toxicity data via EPA-approved methods;  
5 and

6 b. meet the statutory five-year deadline for each subsequent review, starting  
7 with a November 8, 2028, deadline for the Sixth Review and continuing for each  
8 successive Review, not less than every five years thereafter;

9 D. Enter a declaratory judgment, pursuant to Section 706(2)(A) of the APA, 5 U.S. Code §  
10 706 (2)(A), that the Navy and EPA violated properly promulgated federal agency rules and the APA;  
11 and that EPA's actions and inactions, including its approval of the 2006 remedial goals, was unlawful  
12 and will be set aside.

13 E. Award Greenaction its costs and attorney's fees in this action; and

14 F. Grant Greenaction such other and further relief as this Court may deem appropriate.  
15

16 Dated: June 28, 2024

Respectfully Submitted,

17   
18

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27  
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