

**ATTACHMENT A**  
**APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS**

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**Federal Chemical-Specific<sup>a</sup> Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California**

| Requirement  | Prerequisite                                | Citation <sup>b</sup>   | ARAR<br>Determination    | Comments   |
|--|---|---|--------------------------|--|
| <b>Soil</b>  |   |   |                          |  |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C. Chapter 82, §§ 6901-6991[i])<sup>c</sup></b>  |   |   |                          |  |
| Defines RCRA hazardous waste. A solid waste is characterized as toxic, based on TCLP, if the waste exceeds the TCLP maximum concentrations.  | Waste                                       | Cal. Code Regs. tit. 22, §§ 66261.21, 66261.22(a)(1), 66261.23, 66261.24(a)(1), and 66261.100 | Applicable               | These regulations are applicable to activities that generate waste in order to determine if the waste is hazardous. The Navy will determine if the excavated soil meets the definition of non-RCRA hazardous waste when it is generated. |
| <b>Uranium Mill Tailings Radiation Control Act (42 U.S.C., ch. 88, § 192.02, 192.129[a] and [b], 192.42)<sup>c</sup></b>   |   |   |                          |  |
| Standards for Cleanup of Land and Buildings Contaminated with Radium-226, Radium-228, and Thorium from Inactive Uranium Processing Sites.<br><br>As a result of residual radioactive materials from any designated processing site:<br><br>(a) The concentration of radium-226 in land averaged over any area of 100 square meters shall not exceed the background level by more than:<br>(1) 5 pCi/g, averaged over the first 15 cm of soil below the surface, and<br>(2) 15 pCi/g, averaged over 15 cm-thick layers of soil more than 15 cm below the surface. | UMTRCA sites (radioactivity above 5 pCi/g). | 40 CFR § 192.12(a)  | Relevant and Appropriate | This requirement is relevant and appropriate.  |

**Federal Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Requirement  | Prerequisite   | Citation <sup>b</sup>  | ARAR Determination       | Comments  |
|--|--|--|--------------------------|---|
| <b>Soil (Continued)</b>  |  |  |                          |   |
| <b>Radiological Criteria for License Termination</b>   |  |  |                          |   |
| A site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in TEDE to an average member of the critical group that does not exceed 25 mrem/y, including that from groundwater sources of drinking water, and that the residual radioactivity has been reduced to ALARA.   | Existing NRC-licensed radiologically contaminated site.  | 10 CFR § 20.1402   | Relevant and Appropriate | This ARAR is relevant and appropriate for an unrestricted land use scenario. Remediation goals are consistent with those issued in the Radiological TCRA Action Memo. Remediation goals meet the 25 millirem per year residual dose level consistent with 10 CFR Section 20.1402. Furthermore, for most radionuclides of concern, goals meet the 15 millirem per year residual dose level consistent with the 1997 EPA OSWER Directive (OSWER No. 9200.4-18). Of exception, is the goal for Thorium-232 which because of detection limit technical limitations, corresponds to a dose of 25 millirems per year. |
| <b>Groundwater</b>   |  |  |                          |   |
| <b>Resource Conservation and Recovery Act (Title 42 United States Code Chapter 82, §§ 6901-6991[i])<sup>c</sup></b>  |  |  |                          |   |
| Groundwater protection standards: Owners/operators of RCRA treatment, storage, or disposal facilities must comply with conditions in this section that are designed to ensure that hazardous constituents entering the groundwater from a regulated unit do not exceed the concentration limits for contaminants of concern set forth under Cal. Code Regs. tit. 22, § 66264.94 in the uppermost aquifer underlying the waste management area of concern at the POC. | A regulated unit that receives or has received hazardous waste before July 26, 1982, or regulated units that ceased receiving hazardous waste prior to July 26, 1982 where constituents in or derived from the waste may pose a threat to human health or the environment. | Cal. Code Regs. tit. 22, § 66264.94(a)(1), (a)(3), (c), (d), and (e) | Relevant and appropriate | The lowest concentration determined to be technologically and economically achievable is an ARAR for the A-aquifer. The lowest concentration limit greater than background that is technologically and economically achievable for the A-aquifer is based on unacceptable risk from the vapor intrusion pathway.  |

**Federal Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Requirement   | Prerequisite  | Citation <sup>b</sup> | ARAR Determination       | Comments  |
|---|---|-----------------------|--------------------------|---|
| <b>Surface Water</b>  |   |                       |                          |   |
| <b>Clean Water Act of 1977, as Amended (33 U.S.C., ch. 26, §§ 1251–1387)<sup>c</sup></b>  |   |                       |                          |   |
| Surface water quality standards.  | Discharges to waters of the United States.  | 40 CFR § 131.38       | Applicable               | These standards, known as the California Toxics Rule (CTR), are applicable surface water ARARs. The Navy has identified the CTR as ARARs for surface water along the Bay shoreline of HPS Parcels D-1 and UC-1 because groundwater discharges to the Bay. The Navy will meet these ARARs for contaminants that do not have a promulgated standard in Table 3-3 of the Basin Plan at the interface of the A-aquifer and the Bay. |
| <b>Air</b>  |   |                       |                          |   |
| <b>Clean Air Act (42 U.S.C., ch. 85, §§ 7401–7671)<sup>c</sup></b>  |   |                       |                          |   |
| Emissions of radionuclides into the ambient air from Department of Energy facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/y. | Facility owned or operated by the Department of Energy that emits any radionuclide other than radon-222 and radon-220 into the air. | 40 CFR § 61.92        | Relevant and Appropriate | Not applicable because Parcels D-1 and UC-1 are not a Department of Energy sites but may be relevant and appropriate if there is the potential for airborne emissions of radionuclides other than radon. Only an ARAR until cleanup action is completed. Not an ARAR for residual contamination after cleanup.  |

**Federal Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Requirement  | Prerequisite  | Citation <sup>b</sup> | ARAR Determination | Comments   |
|--|---|-----------------------|--------------------|--|
| <b>Air (Continued)</b>   |   |                       |                    |  |
| <b>Clean Air Act (42 U.S.C., ch. 85, §§ 7401–7671)<sup>c</sup></b>   |   |                       |                    |  |
| Emissions of radionuclides, including iodine, into the ambient air from a facility regulated under this subpart shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/y. Emissions of iodine into the ambient air from a facility regulated under this subpart shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 3 mrem/y. | Facilities owned or operated by any federal agency other than the Department of Energy and not licensed by the NRC. | 40 CFR § 61.102       | Applicable         | The requirements are applicable since fugitive dust may be generated during implementation of remedial action at Parcels D-1 and UC-1. The exposure to the public due to remedial action operations at Parcels D-1 and UC-1 are not likely to exceed 10 mrem/y because of the following reasons: (1) The concentrations of any radionuclide in dust are relatively low as previously measured in air samples, and (2) the concentration of any radionuclide in dust will be reduced by use of engineering controls such as wetting of soils. |

Notes:

- a Many action-specific ARARs contain chemical-specific limitations are addressed in the action-specific ARAR tables.
  - b Only the substantive provisions of the requirements cited in this table are ARARs.
  - c Statutes and policies, and their citations, are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs. Specific ARARs are addressed in the table below each general heading; only substantive requirements of the specific citations are considered ARARs.
- |                 |  |        |   |
|-----------------|--|--------|---|
| §               | Section  | NRC    | Nuclear Regulatory Commission               |
| §§              | Sections   | pCi/g  | PicoCurie per gram                          |
| ALARA           | As low as reasonably achievable                    | POC    | Point of compliance                         |
| ARAR            | Applicable or relevant and appropriate requirement | RCRA   | Resource Conservation and Recovery Act      |
| Cal. Code Regs. | California Code of Regulations                     | TBC    | To be considered                            |
| CFR             | Code of Federal Regulations                        | TCLP   | Toxicity characteristic leaching procedure  |
| cm              | Centimeter   | TEDE   | Total effective dose equivalent             |
| CTR             | California Toxics Rule                             | tit    | Title                                       |
| HPS             | Hunters Point Shipyard                             | UMTRCA | Uranium Mill Tailings Radiation Control Act |
| mrem/y          | Millirem per year                                  | U.S.C. | United States Code                          |

**State Chemical-Specific<sup>a</sup> Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California**

| Requirement   | Prerequisite        | Citation <sup>b</sup>   | Preliminary<br>ARAR<br>Determination | Comments  |
|---|---------------------|---|--------------------------------------|---|
| <b>Groundwater</b>  |                     |   |                                      |   |
| <b>State and Regional Water Quality Control Boards<sup>c</sup></b>  |                     |   |                                      |   |
| Incorporated into all regional board basin plans. Designates all groundwater and surface waters of the state as drinking water except where the total dissolved solids are greater than 3,000 parts per million, the well yield is less than 200 gallons per day from a single well, the water is a geothermal resource or in a water conveyance facility, or the water cannot reasonable be treated for domestic use using either best management practices or best economically achievable treatment practices. | Waters of the state | SWRCB Res. 88-63 (Sources of Drinking Water Policy)   | Applicable                           | The Navy has evaluated the groundwater characteristics in the A-aquifer and B-aquifer at HPS Parcels D-1 and UC-1 against the criteria listed in SWRCB Res. 88-63. The Navy has determined that groundwater in the A-aquifer is not a potential source of drinking water and groundwater in the B-aquifer has a low potential for use as a drinking water source. The Water Board has concurred in the Navy's determination that groundwater in the A-aquifer is not a potential drinking water source. |
| Describes the water basins in the San Francisco Bay Region beneficial uses of groundwater and surface water, establishes water quality objectives, including narrative and numerical standards and establishes implementation plans to meet the water quality objectives and protect beneficial uses, and incorporates statewide water quality control plans and policies.  | Waters of the state | Comprehensive Water Quality Control Plan for the San Francisco Region (Basin Plan) Chapters 2 and 3 (California Water Code § 13240), except the MUN designation for the A-aquifer | Applicable                           | The substantive groundwater provisions of Chapters 2 and 3 of the basin plan, except the MUN designation, are ARARs. According to the basin plan, which incorporates SWRCB Res. 88-63, A-aquifer groundwater at HPS Parcels D-1 and UC-1 are not a potential drinking water source. The only beneficial use of the A-aquifer groundwater is freshwater replenishment of San Francisco Bay. The B-aquifer groundwater has a low potential for use as a drinking water source.                            |
| Authorizes SWRCB and the Water Board to establish in water quality control plans, beneficial uses and numerical and narrative standards to protect both surface water and groundwater quality.  | Waters of the state | California Water Code, div. 7, §§ 13241, 13243, 13263(a), 13269, and 13360 (Porter-Cologne Act)   | Applicable                           | The Navy accepts the substantive provisions of §§ 13241, 13243, 13263(a), 13269, and 13360 of the Porter-Cologne Act enabling legislation, as implemented through the beneficial uses, water quality objectives, waste discharge requirements, and promulgated policies of the San Francisco Basin Plan as ARARs.   |

**State Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Requirement   | Prerequisite | Citation <sup>b</sup>   | Preliminary ARAR Determination | Comments   |
|---|--------------|---|--------------------------------|--|
| <p>Establishes the policy that high-quality waters of the state “shall be maintained to the maximum extent possible” consistent with the “maximum benefit to the people of the State.” It provides that whenever the existing quality of water is better than that required by applicable water quality policies, such existing high-quality water will be maintained until it has been demonstrated to the state that any change will be consistent with maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies. It also states that any activity that produces or may produce a waste or increased volume or concentration of waste and that discharges or proposes to discharge to existing high-quality waters will be required to meet waste-discharge requirements that will result in the best practicable treatment or control of the discharge.</p> |              | <p>Statement of Policy With Respect to Maintaining High Quality of Waters in California, SWRCB Res. 68-16</p> | <p>Not an ARAR</p>             | <p>The DON has determined that SWRCB Res. 68-16 is not a chemical-specific ARAR for determining remedial action goals, but it is an action-specific ARAR for regulating discharged treated groundwater to surface water. This remedial action does not include discharge of treated groundwater to surface water. The DON has determined that further migration of VOCs through groundwater is not a discharge governed by the language in Res. 68-16. More specifically, the language of SWRCB Res. 68-16 indicates that it is prospective in intent, applying to new discharges in order to maintain existing high-quality waters. It is not intended to apply to restoration of waters that are already degraded.</p> <p>The state does not agree with the Navy’s determination that SWRCB Res. 92-49 and 68-16 are not ARARs for this response action. SWRCB has interpreted the term “discharges” in the <i>California Water Code</i> to include the movement of waste from soils to groundwater and from contaminated to uncontaminated water (SWRCB 1994). However, the state agrees that the proposed action would comply with SWRCB Res. 92-49 and 68-16. The state does not intend to dispute the ROD, but reserves its rights if implementation of the provisions at Cal. Code Regs. tit. 22 is not as stringent as state implementation of the provisions at Cal. Code Regs. tit. 23. Because Cal. Code Regs. tit. 22 regulation is part of the state’s authorized hazardous waste control program, it is also the state’s position that Cal. Code Regs. tit. 22, § 66264.94 is a state ARAR and not a federal ARAR (<i>United States v. State of Colorado</i>, 990 F.2d 1565 [1993]).</p> |

**State Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Requirement  | Prerequisite | Citation <sup>b</sup>  | Preliminary ARAR Determination | Comments   |
|--|--------------|--|--------------------------------|--|
| <p>Describes requirements for Water Board oversight of investigation and cleanup and abatement activities resulting from discharges of hazardous substances. The Water Board may decide on cleanup and abatement goals and objectives for the protection of water quality and beneficial uses of water within each region. Establishes criteria for “containment zones” where cleanup to established water-quality goals is not economically or technically practicable.</p> |              | <p>Policies and procedures for investigation and cleanup and abatement of discharges under Cal. Water Code § 13304, SWRCB Res. 92-49</p> | <p>Not an ARAR</p>             | <p>SWRCB Res. 92-49 is not an ARAR for groundwater cleanup because the provisions of Cal. Code Regs. tit. 22, § 66264.94 (a)(1), (a)(3), (c), (d), and (e) have been determined to be a federal ARAR and SWRCB Res. 92-49 is not more stringent.</p> <p>The state does not agree with the Navy’s determination that SWRCB Res. 92-49 and 68-16 are not ARARs for this response action. SWRCB has interpreted the term “discharges” in the <i>California Water Code</i> to include the movement of waste from soils to groundwater and from contaminated to uncontaminated water (SWRCB 1994). However, the state agrees that the proposed action would comply with SWRCB Res. 92-49 and 68-16. The state does not intend to dispute the ROD, but reserves its rights if implementation of the provisions at Cal. Code Regs. tit. 22 is not as stringent as state implementation of the provisions at Cal. Code Regs. tit. 23. Because Cal. Code Regs. tit. 22 regulation is part of the state’s authorized hazardous waste control program, it is also the state’s position that Cal. Code Regs. tit. 22, § 66264.94 is a state ARAR and not a federal ARAR (<i>United States v. State of Colorado</i>, 990 F.2d 1565 [1993]).</p> |



**State Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Requirement  | Prerequisite  | Citation <sup>b</sup>  | Preliminary<br>ARAR<br>Determination | Comments  |
|--|---|--|--------------------------------------|---|
| <b>Surface Water</b>   |   |  |                                      |   |
| Surface water quality standards.                                     | Marine water with salinities equal to or greater than 10 ppt 95 percent of the time | Basin Plan Table 3-3   | Applicable                           | These standards are applicable surface water ARARs. The Navy has identified Table 3-3 an ARAR for surface water along the Bay shoreline of HPS Parcels D-1 and UC-1 because groundwater discharges to the Bay. The Navy will meet these ARARs in the Bay at the interface of the A-aquifer and the Bay.   |
| <b>Soil</b>  |   |  |                                      |   |
| <b>Department of Toxic Substances Control<sup>b</sup></b>            |   |  |                                      |   |
| Definition of non-RCRA hazardous waste.                              | Waste   | Cal. Code Regs. tit. 22, §§ 66261.3(a)(2)(C) or (a)(2)(F), 66261.22(a)(3) and (a)(4), 66261.24(a)(2) – (a)(8), and 66261.101 | Applicable                           | These regulations are applicable to activities that generate waste in order to determine if the waste is non-RCRA hazardous waste. Some of the alternatives evaluated in this revised feasibility study report include excavation and off-site disposal of soil. The Navy will determine if the excavated soil meets the definition of non-RCRA hazardous waste when it is generated. |
| <b>State Water Resources Control Board<sup>b</sup></b>               |   |  |                                      |   |
| Definition of designated waste, nonhazardous waste, and inert waste. | Waste   | Cal. Code Regs. tit. 27, §§ 20210, 20220, and 20230  | Applicable                           | These regulations are applicable to activities that generate waste for classifying waste and determining the status of other ARARs. One of the alternatives evaluated in this revised feasibility study report includes excavation and off-site disposal of soil. The Navy will determine if the excavated soil meets these definitions when it is generated.                         |

**State Chemical-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

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Notes:

|                 |   |
|-----------------|---|
| a               | Many action-specific ARARs contain chemical-specific limitations are addressed in the action-specific ARAR tables.  |
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| c               | Statutes and policies, and their citations, are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs. Specific ARARs are addressed in the table below each general heading; only substantive requirements of the specific citations are considered ARARs. |
| §               | Section   |
| §§              | Sections  |
| ARAR            | Applicable or relevant and appropriate requirement  |
| div.            | Division  |
| Cal. Code Regs. | Code of California Regulations  |
| HPS             | Hunters Point Shipyard  |
| MUN             | Municipal and domestic supply   |
| ppt             | Part per thousand   |
| RCRA            | Resource Conservation and Recovery Act  |
| Res.            | Resolution  |
| SWRCB           | State Water Resources Control Board   |
| tit.            | Title   |
| Water Board     | San Francisco Bay Regional Water Quality Control Board  |

**Federal Location-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California**

| Location  | Requirement  | Prerequisite   | Citation <sup>a</sup>   | Preliminary ARAR Determination | Comments   |
|---|--|--|---|--------------------------------|--|
| <b>National Historic Preservation Act of 1966, as Amended (Title 16 U.S.C. §§ 470-470x-6)<sup>b</sup></b> |  |  |   |                                |  |
| Historic project owned or controlled by federal agency  | Action to preserve historic properties; planning of action to minimize harm to properties listed on or eligible for listing on the National Register of Historic Places. | Property included in or eligible for the National Register of Historic Places.             | 16 U.S.C. §§ 470-470x-6 36, CFR Part 800 40, and CFR § 6.301(b) | Applicable                     | The Navy has determined that the 450-ton bridge crane is eligible for inclusion on the National Register of Historic Places. None of the remedial alternatives evaluated in this feasibility study report include activities that will have an impact on the crane.  |
| <b>Coastal Zone Management Act (Title 16 USC §§ 1451-1464)<sup>b</sup></b>                                |  |  |   |                                |  |
| Within coastal zone   | Conduct activities in a manner consistent with approved state management programs.   | Activities affecting the coastal zone, including lands thereunder and adjacent shore land. | 16 U.S.C. § 1456(c) and 15 CFR § 930                            | Relevant and appropriate       | Federal lands are specifically excluded from the coastal zone; however, the Navy has determined that the Coastal Zone Management Act is relevant and appropriate for activities that will occur within 100 feet of the San Francisco Bay. Any remedial actions taken by the Navy will be consistent with the San Francisco Bay Plan, an approved state management program. |

Notes:

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§ Section

§§ Sections

ARAR Applicable or relevant and appropriate requirement

CFR Code of Federal Regulations

U.S.C. United States Code

**State Location-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California**

| Location  | Requirement  | Prerequisite   | Citation <sup>a</sup>   | Preliminary ARAR Determination | Comments  |
|---|--|--|---|--------------------------------|---|
| <b>McAteer-Petris Act (California Government Code §§ 66600 through 66661)<sup>b</sup></b> |  |  |   |                                |   |
| Within the San Francisco Bay coastal zone   | Reduce fill and disposal of dredged material in San Francisco Bay, maintain marshes and mudflats to the fullest extent possible to conserve wildlife, abate pollution, and protect the beneficial uses of the San Francisco Bay. | Activities affecting the San Francisco Bay and 100 feet landward of the shoreline. | San Francisco Bay Plan (Bay Plan) at Cal. Code Regs. tit. 14 §§ 10110 through 11990 | Relevant and appropriate       | The Bay Plan, developed under the authority of the McAteer-Petris Act, is an approved state coastal zone management program. Any remedial actions take by the Navy that will affect San Francisco Bay or that will occur within 100 feet landward of the shoreline will be consistent with the goals of the Bay Plan. |

Notes:

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- b Statutes and policies, and their citations, are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs. Specific ARARs are addressed in the table below each general heading; only substantive requirements of the specific citations are considered ARARs.
- §§ Sections
- ARAR Applicable or relevant and appropriate requirement
- Cal. Code Regs. California Code of Regulations
- tit. Title

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California**

| Action   | Requirement  | Prerequisite  | Citation  | Preliminary ARAR Determination | Comments  |
|--|--|---|---|--------------------------------|---|
| <b>Excavation and Off-Site Disposal of Soil</b>  |  |   |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup></b> |  |   |   |                                |   |
| On-site generation of waste  | Person who generates waste shall determine if the waste is a hazardous waste.  | Generator of waste                                      | Cal. Code Regs. tit. 22, §§ 66262.10(a), and 66262.11                             | Applicable                     | These regulations are applicable to any operation that generates waste. The excavation and off-site disposal alternative contemplates the generation of waste to be disposed of off site. The Navy will decide whether the waste in RCRA hazardous waste when it is generated.    |
| On-site generation of waste  | Requirements for analyzing waste for determining whether waste is hazardous.   | Generator of waste                                      | Cal. Code Regs. tit. 22, § 66264.13(a) and (b)                                    | Applicable                     | These regulations are applicable to any operation that generates waste. The excavation and off-site disposal alternative includes activities that generate waste to be disposed of off site. The Navy will decide whether the waste is RCRA hazardous waste when it is generated. |
| Stockpiling soil for off-site disposal   | Allows generators to accumulate solid remediation waste in an EPA-designated pile for storage only up to 2 years during remedial operations without triggering land disposal restrictions. | Hazardous remediation waste temporarily stored in piles | 40 CFR § 264.554 (d)(1)(i) through (ii), (d)(2), (e), (f), (h), (i), (j), and (k) | Relevant and appropriate       | The Navy will temporarily stockpile soil in staging piles for off-site disposal. The Navy does not anticipate that all soil will be RCRA hazardous waste; however, the Navy has determined that these requirements are relevant and appropriate for all stockpiled soil.          |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite                         | Citation  | Preliminary ARAR Determination | Comments  |
|--|---|--------------------------------------|---|--------------------------------|---|
| <b>Clean Air Act (Title 42 U.S.C. §§ 7401-7671)<sup>a</sup></b>  |   |                                      |   |                                |   |
| Excavate soil  | Prohibits emission equal or greater to 20 percent opacity.  | Emission from a source               | Bay Area Air Quality Management District Rule 6-302 | Applicable                     | This requirement is applicable to the construction required for installation of the soil cover.   |
| <b>Covering Portions of Soil</b>   |   |                                      |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup></b> |   |                                      |   |                                |   |
| Construct a cover  | The final cover must accommodate lateral and vertical shear forces generated by the maximum credible earthquake so that the integrity of the final cover is maintained.   | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.310(a)(5)          | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |
| Construct a cover  | The integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events throughout the post-closure period. | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.310(b)(1)          | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite                         | Citation                                   | Preliminary ARAR Determination | Comments  |
|--|---|--------------------------------------|--|--------------------------------|---|
| Construct a cover  | Run-on and run-off must not erode or otherwise damage the final cover.      | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.310(b)(4) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |
| <b>Covering Portions of Soil</b>   |   |                                      |  |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup></b> |   |                                      |  |                                |   |
| Construct a cover  | Protect and maintain surveyed benchmarks throughout the postclosure period. | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.310(b)(5) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil  |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite                                    | Citation  | Preliminary ARAR Determination | Comments  |
|--|---|---|---|--------------------------------|---|
| <b>Clean Water Act (Title 33 U.S.C., Chapter 26, §§ 1251-1387)<sup>a</sup></b>                           |   |   |   |                                |   |
| Construct a cover  | Owners and operators of construction activities must be in compliance with discharge standards.   | Construction activities at least 1 acre in size | Clean Water Act § 402 (33 U.S.C. Chapter 26, §1342) and 40 CFR § 122.44(k)(2) and (4) | Applicable                     | The Navy anticipates disturbing more than one acre when constructing the soil covers. The Navy will use the provisions in the state general storm water discharge permit, Order 99-08-DWQ, as TBCs for complying with these storm water discharge requirements under the Clean Water Act. |
| <b>Clean Air Act (Title 42 U.S.C. §§ 7401-7671)<sup>a</sup></b>  |   |   |   |                                |   |
| Construct a cover  | Prohibits emission equal or greater to 20 percent opacity.  | Emission from a source                          | Bay Area Air Quality Management District Rule 6-302                                   | Applicable                     | This requirement is applicable to construction required for the cover.  |
| <b>Groundwater Monitoring</b>  |   |   |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup></b> |   |   |   |                                |   |
| Monitor groundwater  | After closure of a regulated unit, water quality monitoring regulations apply during the post-closure care period under Cal. Code Regs. tit. 22, § 66264.117 unless the regulated unit has been in compliance with the water quality protection standard for three consecutive years. | RCRA hazardous waste management unit            | Cal. Code Regs. tit. 22, § 66264.90(c)  | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action.   |



**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite                         | Citation   | Preliminary ARAR Determination | Comments   |
|--|---|--------------------------------------|--|--------------------------------|--|
| <b>Groundwater Monitoring (Continued)</b>  |   |                                      |  |                                |  |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup> (Continued)</b> |   |                                      |  |                                |  |
| Monitor groundwater  | Requirement to establish a detection monitoring program.  | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.91(a)(1)  | Relevant and appropriate       | The requirement to establish a detection monitoring program is applicable to RCRA hazardous waste facilities; however, the Navy has determined that it is relevant and appropriate to establishing its detection monitoring program. |
| Monitor groundwater  | Contaminants of concern are the waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from the waste contained in the regulated unit.  | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.93  | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action.                        |
| Monitor groundwater  | The owner or operator shall establish a groundwater monitoring system for each regulated unit and include a sufficient number of monitoring points installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance. | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.97(b)(1)(A), (b)(1)(B), (b)(1)(C), (b)(1)(D)(1), and (b)(1)(D)(2) | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action.                        |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action  | Requirement   | Prerequisite                         | Citation  | Preliminary ARAR Determination | Comments  |
|---|---|--------------------------------------|---|--------------------------------|---|
| <b>Groundwater Monitoring (Continued)</b>   |   |                                      |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[ij])<sup>a</sup> (Continued)</b> |   |                                      |   |                                |   |
| Monitor groundwater   | Requirements for monitoring well construction and sampling intervals. | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.97(b)(4), (5), (6), and (7)  | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action. |
| Monitor groundwater   | Requirements for groundwater sample collection.                       | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.97(e)(6), (e)(12)(A), (e)(12)(B), (e)(13), and (e)(15)   | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action. |
| Monitor groundwater   | Requirements for a detection monitoring program.                      | RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.98(e)(1) through (5), (i), (j), (k)(1) through (3), (k)(4)(A), (k)(4)(D), (k)(5), (k)(7)(C), (k)(7)(D), (n)(1), (n)(2)(B), and (n)(2)(C) | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action. |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite  | Citation  | Preliminary ARAR Determination | Comments  |
|--|--|---|---|--------------------------------|---|
| <b>Groundwater Monitoring (Continued)</b>  |  |   |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup> (Continued)</b> |  |   |   |                                |   |
| Monitor groundwater  | Requirements for an evaluation monitoring program.   | RCRA hazardous waste management unit  | Cal. Code Regs. tit. 22, § 66264.99(b), (e)(1) through (6), (f)(3), and (g) | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action. |
| Monitor groundwater  | In conjunction with corrective action measures, the owner or operator shall establish and implement a water quality monitoring program to demonstrate the effectiveness of the corrective action program. The program shall be effective in determining compliance and in determining the success of the corrective action measures. | Corrective action for groundwater at RCRA hazardous waste management unit   | Cal. Code Regs. tit. 22, § 66264.100(d)                                     | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action. |
| Monitor groundwater  | After terminating corrective action measures, the owner or operator must continue corrective action monitoring until compliance with remediation goals for a period of 1 year is demonstrated.   | Corrective action for groundwater at a RCRA hazardous waste management unit | Cal. Code Regs. tit. 22, § 66264.100(g)(1)                                  | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action. |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite   | Citation   | Preliminary ARAR Determination | Comments   |
|--|---|--|--|--------------------------------|--|
| <b>Groundwater Monitoring (Continued)</b>  |   |  |  |                                |  |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[j])<sup>a</sup> (Continued)</b> |   |  |  |                                |  |
| Monitor groundwater  | DTSC may shorten the post-closure care period if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment.  | RCRA hazardous waste facility where wastes, waste residues, contaminated materials, and contaminated soils will not be removed during closure  | Cal. Code Regs. tit. 22, § 66264.117(b)(2)(A)  | Relevant and appropriate       | These requirements are applicable to RCRA hazardous waste facilities; however, the Navy has determined that they are relevant and appropriate to the monitoring component of the groundwater response action.  |
| <b>Bioremediation</b>  |   |  |  |                                |  |
| <b>Safe Drinking Water Act (Title 42 U.S.C., § 300[f]-300[j]-26)<sup>a</sup></b>                                     |   |  |  |                                |  |
| Inject metals treatment compound and/or hydrogen treatment compound into groundwater                                 | The underground injection control program prohibits injection activities that allow movement of contaminants into underground sources of drinking water that may result in violations of maximum contaminant levels or adversely affect health. | An approved underground injection control program is required in states listed under SDWA 40 CFR § 144.12. Class I wells and Class IV wells are the relevant classifications for CERCLA sites. Class I wells are used to inject hazardous waste beneath the lowermost formation that contains a USDW within 0.25 mile of the well. | 40 CFR § 144.12, excluding the reporting requirements in § 144.12(b), and 144.12(c)(1) | Applicable                     | This requirement is applicable to the Navy's injection of metals treatment compound and/or hydrogen treatment compound into the groundwater. The Navy will use the basic information requirements contained in 40 CFR §144.83 as TBCs for complying with the requirement in 40 CFR §144.12(a). |

**Federal Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite       | Citation  | Preliminary ARAR Determination | Comments  |
|--|--|--------------------|---|--------------------------------|---|
| <b>Disposal of Investigation-Derived Waste Generated in Implementing Groundwater Alternatives</b>        |  |                    |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 U.S.C., Chapter 82, §§ 6901-6991[i])<sup>a</sup></b> |  |                    |   |                                |   |
| On-site generation of waste  | Person who generates waste shall determine if the waste is hazardous waste.  | Generator of waste | Cal. Code Regs. tit. 22, §§ 66262.10(a), and 66262.11 | Applicable                     | These regulations are applicable to any operation that generates waste. The Navy will decide whether the waste is RCRA hazardous waste when it is generated.    |
| <b>Disposal of Investigation-Derived Waste Generated in Implementing Groundwater Alternatives</b>        |  |                    |   |                                |   |
| <b>Resource Conservation and Recovery Act (Title 42 USC, Chapter 82, §§ 6901-6991[i])<sup>a</sup></b>    |  |                    |   |                                |   |
| On-site generation of waste  | Requirements for analyzing waste for determining whether waste is hazardous. | Generator of waste | Cal. Code Regs. tit. 22, § 66264.13(a) and (b)        | Applicable                     | These regulations are applicable to any operation that generates waste. The Navy will determine whether the waste is RCRA hazardous waste when it is generated. |

Notes:

a Statutes and policies, and their citations, are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs. Specific ARARs follow each general heading, and only substantive requirements of the specific citations are considered ARARs.

|                 |   |        |  |
|-----------------|---|--------|--|
| §               | Section   | EPA    | U.S. Environmental Protection Agency   |
| §§              | Sections  | RCRA   | Resource Conservation and Recovery Act |
| ARAR            | Applicable or relevant and appropriate requirement                    | SDWA   | Safe Drinking Water Act                |
| Cal. Code Regs. | California Code of Regulations  | TBC    | To be considered                       |
| CERCLA          | Comprehensive Environmental Response, Compensation, and Liability Act | tit.   | Title                                  |
| CFR             | Code of Federal Regulations   | U.S.C. | United States Code                     |
| DTSC            | Department of Toxic Substances Control                                | USDW   | Underground sources of drinking water  |
| DWQ             | Department of Water Quality   |        |  |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California**

| Action   | Requirement   | Prerequisite  | Citation  | Preliminary ARAR Determination | Comments   |
|--|---|---|---|--------------------------------|--|
| <b>Institutional Controls</b>                            |   |   |   |                                |  |
| <b>California Civil Code<sup>a</sup></b>                 |   |   |   |                                |  |
| Placing a institutional controls on soil and groundwater | Provides conditions under which land-use restrictions will apply to successive owners of land.  | Transfer of property from the Navy to a nonfederal agency | California Civil Code §1471                                       | Relevant and appropriate       | The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. |
| <b>California Health and Safety Code<sup>a</sup></b>     |   |   |   |                                |  |
| Placing institutional controls on soil and groundwater   | Allows DTSC to enter into an agreement with the owner of a hazardous waste facility to restrict present and future land uses.   | Transfer of property from the Navy to a nonfederal agency | California Health and Safety Code § 25202.5                       | Relevant and appropriate       | The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. |
| Placing institutional controls on soil and groundwater   | Provides processes and criteria for obtaining written variances from a land use restriction and for the removal of a land use restriction.  | Transfer of property from the Navy to a nonfederal agency | California Health and Safety Code §§ 25233(c) and 25234           | Relevant and appropriate       | The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. |
| Placing institutional controls on soil and groundwater   | Provides a streamlined process to be used to enter into an agreement to restrict specific use of property in order to implement the substantive use restrictions of California Health & Safety Code § 25232(b)(1)(A)–(E). | Transfer of property from the Navy to a nonfederal agency | California Health and Safety Code §§ 25222.1 and 25355.5(a)(1)(C) | Relevant and appropriate       | The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. |
| Placing institutional controls on soil and groundwater.  | Prohibits certain uses of land containing hazardous waste without a specific variance.  | Transfer of property from the Navy to a nonfederal agency | California Health and Safety Code § 25232(b)(1)(A) through (E)    | Relevant and appropriate       | The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite  | Citation                            | Preliminary ARAR Determination | Comments  |
|--|--|---|-------------------------------------|--------------------------------|---|
| <b>Institutional Controls (Continued)</b>                  |  |   |                                     |                                |   |
| <b>Department of Toxic Substances Control<sup>a</sup></b>  |  |   |                                     |                                |   |
| Placing institutional controls on soil and groundwater     | A land use covenant imposing appropriate limitations on land use shall be executed and recorded when facility closure, corrective action, remedial or removal action, or other response actions are undertaken and hazardous materials, hazardous wastes or constituents, or hazardous substances will remain at the property at levels which are not suitable for unrestricted use of the land. | Property transfer by federal government to a non-federal entity | Cal. Code Regs. tit. 22, § 67391.1  | Relevant and appropriate       | The Navy is evaluating ICs for soil and groundwater. These requirements are ARARs for those ICs. EPA agrees that the substantive portions of the regulations referenced are ARARs. EPA specifically considers sections (a), (b), (d), and (e) of Cal. Code Regs. tit. 22 § 67391.1, to be ARARs for this ROD. DTSC's position is that all of the state regulation is an ARAR. |
| <b>Excavation and Off-Site Disposal</b>                    |  |   |                                     |                                |   |
| <b>State Water Resources Control Board<sup>a</sup></b>     |  |   |                                     |                                |   |
| Excavating soil and generating investigation-derived waste | Sampling and analysis of discharges shall be used for accurate characterization of wastes.   | Waste   | Cal. Code Regs. tit. 27, § 20200(c) | Applicable                     | This requirement is applicable to operations that generate waste. The Navy will accurately characterize waste for off-site disposal.  |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite   | Citation  | Preliminary ARAR Determination | Comments   |
|--|--|--|---|--------------------------------|--|
| <b>Excavation and Off-Site Disposal (Continued)</b>                |  |  |   |                                |  |
| <b>State Water Resources Control Board<sup>a</sup> (Continued)</b> |  |  |   |                                |  |
| Off-site disposal of soil and investigation derived waste          | Requires that designated waste as defined at California Water Code §13173 be discharged to Class I or Class II waste management units.       | Discharge of designated waste after July 18, 1997 (nonhazardous waste that could cause degradation of surface or groundwaters) to land for treatment, storage, or disposal | Cal. Code Regs. tit. 27, § 20210                  | Applicable                     | This requirement is applicable to operations that generate waste. The Navy will determine if the waste meets the definition of designated waste for off-site disposal.         |
| Off-site disposal of soil and investigation derived waste          | Requires that nonhazardous solid waste as defined at Cal. Code Regs. tit. 27 § 20220(a) be discharged to a classified waste management unit. | Discharge of nonhazardous solid waste after July 18, 1997, to land for treatment, storage, or disposal   | Cal. Code Regs. tit. 27, § 20220(b), (c), and (d) | Applicable                     | This requirement is applicable to operations that generate waste. The Navy will determine if the waste meets the definition of nonhazardous solid waste for off-site disposal. |
| Off-site disposal of soil and investigation derived waste          | Inert waste as defined at Cal. Code Regs. tit. 27 § 20230(a) need not be discharged at a classified unit.                                    | Applies to discharges of inert waste to land after July 18, 1997, for treatment, storage, or disposal  | Cal. Code Regs. tit. 27 § 20230(b)                | Applicable                     | This requirement is applicable to operations that generate waste. The Navy will determine if the waste meets the definition of inert waste for off-site disposal.              |



**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite   | Citation                            | Preliminary ARAR Determination | Comments  |
|--|--|--|-------------------------------------|--------------------------------|---|
| <b>Covering Portions of the Soil</b>                   |  |  |                                     |                                |   |
| <b>State Water Resources Control Board<sup>a</sup></b> |  |  |                                     |                                |   |
| Covering portions of the soil                          | Alternatives to construction or prescriptive standards.  | Cal. Code Regs. tit. 27 requirements are only applicable for waste discharged after July 18, 1997 unless otherwise noted | Cal. Code Regs. tit. 27, § 20080(b) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |
| Remediation activities                                 | Actions taken by or at the direction of public agencies to clean up or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment; provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to the SWRCB-promulgated sections of Article 2, Subchapter 2, Chapter 3, Subdivision 1 of this division (§20200 et seq.); and further provided that remedial actions intended to contain the wastes at the place of release shall implement applicable SWRCB-promulgated provisions of this division to the extent feasible. | Action taken by or at the direction of a public agency to cleanup release of pollutant                                   | Cal. Code Regs. tit. 27 § 20090(d)  | Relevant and appropriate       | This regulation is relevant and appropriate because “public agency” is not defined in the regulations; therefore, it does not specifically apply to the federal government.   |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite                         | Citation                           | Preliminary ARAR Determination | Comments  |
|--|--|--------------------------------------|------------------------------------|--------------------------------|---|
| <b>Covering Portions of the Soil (Continued)</b>                   |  |                                      |                                    |                                |   |
| <b>State Water Resources Control Board<sup>a</sup> (Continued)</b> |  |                                      |                                    |                                |   |
| Covering portions of the soil                                      | Closed units shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of containment structures can be determined throughout the post-closure maintenance period. | Waste discharged after July 18, 1997 | Cal. Code Regs. tit. 27 § 20950(d) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite          | Citation                              | Preliminary ARAR Determination | Comments  |
|--|---|-----------------------|---------------------------------------|--------------------------------|---|
| <b>Covering Portions of the Soil (Continued)</b>                   |   |                       |                                       |                                |   |
| <b>State Water Resources Control Board<sup>a</sup> (Continued)</b> |   |                       |                                       |                                |   |
| Covering portions of the soil                                      | In spite of differential settlement, the final cover of closed landfills (including waste piles and surface impoundments closed as landfills) shall be designed, graded, and maintained to prevent ponding and to prevent soil erosion caused by high run-off velocities. All portions of the final cover shall have a slope of at least 3 percent unless the Water Board allows portions of the final cover to be built with slopes of less than 3 percent when the discharger proposes an effective system for diverting surface drainage from laterally adjacent areas and preventing ponding in the allowed flatter portion. The final grading design shall be designed and approved by a registered civil engineer or certified engineering geologist taking into consideration pertinent natural and constructed topographic features (including any related to the proposed post-closure land use), and climate. | Waste management unit | Cal. Code Regs. tit. 27 § 21090(b)(1) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite          | Citation                              | Preliminary ARAR Determination | Comments  |
|--|--|-----------------------|---------------------------------------|--------------------------------|---|
| <b>Covering Portions of the Soil (Continued)</b>                   |  |                       |                                       |                                |   |
| <b>State Water Resources Control Board<sup>a</sup> (Continued)</b> |  |                       |                                       |                                |   |
| Covering portions of the soil                                      | Throughout the post-closure maintenance period, the discharger shall prevent erosion and related damage of the final cover caused by drainage. | Waste management unit | Cal. Code Regs. tit. 27 § 21090(c)(4) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite          | Citation                                      | Preliminary ARAR Determination | Comments  |
|--|--|-----------------------|---|--------------------------------|---|
| <b>Covering Portions of the Soil (Continued)</b>                   |  |                       |   |                                |   |
| <b>State Water Resources Control Board<sup>a</sup> (Continued)</b> |  |                       |   |                                |   |
| Covering portions of the soil                                      | When all closure activities are complete for the unit, the discharger shall conduct an aerial photographic survey, or alternative survey under Cal. Code Regs. tit. 27 § 21090 (e)(3), of the closed portions of the unit and of its immediate surrounding area, including at least the surveying monuments (of § 20950[d]). The data obtained shall be used to produce a topographic map of the site at a scale and contour interval sufficient to depict the as-closed topography of each portion of the unit, and to allow the early identification of any differential settlement. The map produced pursuant to this paragraph shall act as a base-line against which to measure the total settlement, through time, of all portions of the final cover since the date when that landfill, or portion thereof, was closed. | Waste management unit | Cal. Code Regs. tit. 27 § 21090(e)(1) and (3) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement  | Prerequisite                                    | Citation  | Preliminary ARAR Determination | Comments   |
|--|--|---|---|--------------------------------|--|
| <b>Covering Portions of the Soil (Continued)</b>                   |  |   |   |                                |  |
| <b>State Water Resources Control Board<sup>a</sup> (Continued)</b> |  |   |   |                                |  |
| Excavating soil  | Construction that disturbs at least 1 acre must use best management practices to control storm water discharges.   | Construction activities at least 1 acre in size | SWRCB General Permit for Storm Water Discharges 99-08-DWQ | TBC                            | The excavation and off-site disposal alternative and the cover alternative will disturb at least 1 acre. Therefore, the Navy has determined that Clean Water Act §402 (33 U.S.C. §1342) and 40 CFR. §122.44(k)(2) and (4) requirements for storm water discharge are federal ARARs. In order to comply with these federal ARARs, the Navy will use the substantive requirements of the state permit as TBCs. |
| Covering portions of the soil                                      | <p>The final cover shall function with minimum maintenance and shall be compatible with post-closure land use.</p> <p>Alternative final cover designs shall meet the performance requirements of Cal. Code Regs. tit. 27 §21140(a).</p> <p>The Enforcement Authority may require additional thickness, quality, and type of final cover depending on, but not limited to the future reuse of the site.</p> | Waste management unit                           | Cal. Code Regs. tit. 27 § 21140                           | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil.  |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action  | Requirement   | Prerequisite          | Citation                           | Preliminary ARAR Determination | Comments  |
|---|---|-----------------------|------------------------------------|--------------------------------|---|
| <b>Covering Portions of the Soil (Continued)</b>                |   |                       |                                    |                                |   |
| <b>California Integrated Waste Management Board<sup>a</sup></b> |   |                       |                                    |                                |   |
| Covering portions of the soil                                   | The operator shall ensure the integrity of final slopes under both static and dynamic conditions to protect public health and safety and prevent damage to post-closure land uses, roads, structures, utilities, and to prevent exposure of waste.  | Waste management unit | Cal. Code Regs. tit. 27 § 21145(a) | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |
| Covering portions of the soil                                   | The drainage and erosion control system shall be designed and maintained to ensure integrity of post-closure land uses, roads, and structures; to prevent public contact with waste; to prevent safety hazards; and to prevent exposure of waste. Slopes that are not underlain by waste shall be stabilized to prevent soil erosion. Methods used to protect slopes and control erosion shall include, but are not limited to, terracing, contour furrows, and trenches. | Waste management unit | Cal. Code Regs. tit. 27 § 21150    | Relevant and appropriate       | The Navy has determined that this regulation is an ARAR for covering portions of the soil. This regulation is relevant and appropriate because the soil cover will not be constructed as a landfill waste management unit. Instead, the cover will be constructed solely to prevent human exposure to contaminants in the soil. |

**State Action-Specific Applicable or Relevant and Appropriate Requirements  
Record of Decision for Parcels D-1 and UC-1, Hunters Point Shipyard, San Francisco, California (Continued)**

| Action   | Requirement   | Prerequisite   | Citation                           | Preliminary ARAR Determination | Comments  |
|--|---|--|------------------------------------|--------------------------------|---|
| <b>Groundwater Monitoring</b>                          |   |  |                                    |                                |   |
| <b>State Water Resources Control Board<sup>a</sup></b> |   |  |                                    |                                |   |
| Remediation activities                                 | Actions taken by or at the direction of public agencies to clean up or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment; provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to the SWRCB-promulgated sections of Article 2, Subchapter 2, Chapter 3, Subdivision 1 of this division (§ 20200 et seq.); and further provided that remedial actions intended to contain the wastes at the place of release shall implement applicable SWRCB-promulgated provisions of this division to the extent feasible. | Action taken by or at the direction of a public agency to cleanup release of pollutant | Cal. Code Regs. tit. 27 § 20090(d) | Relevant and appropriate       | This regulation is relevant and appropriate to the Navy's groundwater remedial action because "public agency" is not defined in the regulations; therefore, it does not specifically apply to the federal government. |

Notes:

a Statutes and policies, and their citations, are provided as headings to identify general categories of ARARs for the convenience of the reader; listing the statutes and policies does not indicate that the Navy accepts the entire statutes or policies as ARARs. Specific ARARs follow each general heading, and only substantive requirements of the specific citations are considered ARARs.

|                 |  |             |  |
|-----------------|--|-------------|--|
| §               | Section  | HPS         | Hunters Point Shipyard                                 |
| §§              | Sections   | IC          | Institutional control                                  |
| ARAR            | Applicable or relevant and appropriate requirement | ROD         | Record of Decision                                     |
| Cal. Code Regs. | California Code of Regulations                     | SWRCB       | State Water Resources Control Board                    |
| CFR             | Code of Federal Regulations                        | TBC         | To be considered                                       |
| DTSC            | Department of Toxic Substances Control             | tit.        | Title  |
| DWQ             | Department of Water Quality                        | U.S.C.      | United States Code                                     |
| EPA             | U.S. Environmental Protection Agency               | Water Board | San Francisco Bay Regional Water Quality Control Board |