MOFFETT FEDERAL AIRFIELD

RESPONSE TO COMMENTS ON REVISED DRAFT OPERABLE UNIT 1 RECORD OF DECISION

JUNE 9, 1997

This report presents point-by-point responses to regulatory agency comments on the revised draft Operable Unit 1 (OU1) Record of Decision submitted March 28, 1997 by PRC Environmental Management, Inc. (PRC) for Moffett Federal Airfield (MFA), California. Mr. Michael Gill of the U.S. Environmental Protection Agency (EPA) submitted comments in a letter dated April 18, 1997. Mr. Joseph Chou of the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) provided comments in a letter dated April 25, 1997. Mr. Chou's letter incorporated comments from Mr. Michael Rochette, Regional Water Quality Control Board, (RWQCB) San Francisco Bay Region; Mr. Glenn Young, California Integrated Waste Management Board (IWMB); and Ms. Patricia Velez, California Department of Fish and Game (DFG).

EPA GENERAL COMMENTS

Comment 1. EPA believes that a corrective action management unit (CAMU) is unnecessary under the circumstances described in this ROD, because Subtitle C waste (hazardous waste) to be excavated from Site 2 will be transported to an offsite licensed facility. The CAMU Rule applies to land disposal restrictions (LDRs) for hazardous wastes under Subtitle C of the Resource Conservation and Recovery Act (RCRA) and the corresponding state requirements. Subtitle D wastes are not subject to LDRs, and therefore may be consolidated without triggering any LDRs. EPA is concerned that designating a Subtitle D solid waste landfill as a CAMU potentially could result in a remedy that is not environmentally protective because, under the circumstances and absent any agreed upon restrictions, it would allow the Navy to place hazardous wastes in a facility designed to receive only solid waste.

In response to concerns expressed by the state, and in light of the fact that all wastes will be removed from Site 2 so as to reduce the restrictions on future land use, EPA agrees to the designation of Site 1 as a CAMU, subject to certain restrictions which must be set forth in the ROD. The restrictions and any necessary clarifications regarding the remedy must be included in the ROD in order to justify departure from EPA policy. The designation of Site 1 as a CAMU will not guarantee protectiveness if hazardous waste is placed into Site 1, but with the clarifications outlined below, its designation is appropriate to move the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process forward. This action is not intended to set precedent for any other site.

EPA believes that the ROD should contain language to guarantee the following:

(1) The Navy will not consolidate any waste into the Site 1 landfill from any other sites, or facilities. Only that waste screened as municipal solid waste from Site 2 will be consolidated into Site 1.

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Response: *The Navy intends to also use soils currently stockpiled at the bioremediation pad for fill at Site 1. This plan was discussed during and after the project manager's meeting on May 7, 1997 and met with the general approval of the regulatory agencies. The Navy does not intend to consolidate any wastes at Site 1 other than those excavated from Site 2. The ROD h as been modified to clarify these points.*

(2) Immediately following the consolidation, the engineered, multi-layered municipal solid waste cap will be constructed according to regulations outlined in the ROD to close the landfill so that no other waste can be placed at the site.

Response: *Construction of the Site 1 cap is scheduled to immediately follow excavation and consolidation.*

(3) If the Navy encounters any hazardous waste in Site 1 during consolidation, more characterization may be necessary.

Response: *Significant quantities of hazardous waste are not expected to be uncovered during consolidation activities at Site 1. The Navy will dispose of any containers of liquid waste off site if any are excavated at Site 1. The Navy does not believe that additional characterization would be warranted because of the highly nonuniform nature of the waste and the significant additional expense and time required for characterization.*

(4) Any soils from Site 2 which appear to be potentially contaminated (e.g. discolored soils, sludge-like soil, etc.) will be shipped off-site to a hazardous waste facility.

Response: *Through visual screening, excavated material acceptable for consolidation at the Site 1 landfill will be segregated from materials requiring off-site disposal. The Navy will not place containers of liquid waste excavated from Site 2 at Site 1. Freely mobile waste materials, such as liquids contained in drums or cans, will not be placed at Site 1 but will be shipped off site to an appropriate disposal facility. Furthermore, free liquids observed in the Site 2 excavation that are clearly not groundwater (for example, free-phase paints, oils, or solvents) will be removed, characterized, and disposed of off site..*

Comment 2. The ROD should clarify that when contaminant levels are detected greater than federal Ambient Water Quality Criteria (AWQC), the activation of the groundwater collection trench will be triggered.

Response: *Groundwater within the extraction trench will be monitored at the same frequency as at the Site 1 groundwater monitoring wells. If chemical concentrations greater than federal AWQC are observed, the Navy will consult with the regulatory agencies to discuss appropriate actions. Potential actions may include additional or more frequent monitoring or groundwater extraction, depending on the nature and levels of the chemicals detected. This information has been added to Sections 1.0, 2.7, 2.10, and 2.11 of the ROD.*

Comment 3. Assurances that institutional controls will be upheld need to be included in the ROD. The ROD mentions in numerous places that any institutional controls will be annotated in Moffett Federal Airfield's "Master Plan". According to National Aeronautics and Space Administration (NASA) Environmental staff (phonecon between EPA/Gill and

NASA/Olliges of April 2, 1997), there is no Master Plan for MFA. Some type of agreement between Navy and NASA and an amendment to the site's deed will be necessary to insure that future owners/operators are aware of necessary operation and maintenance (O&M) requirements to keep the remedies operational.

Response: *The Navy has learned that the reference to a "Master Plan" was a misnomer. The Navy will, therefore, consult with NASA to identify appropriate land use planning restrictions used by NASA and develop a process and the necessary restrictive provisions to assure that the required institutional controls will be promptly implemented at Moffett Field while the property remains federally owned land and also provide a basis for the development of appropriate notices and land use covenants binding on subsequent land owners in the event of any conveyance of the property.*

Comment 4. With respect to whether or not the federal municipal solid waste regulations or the state regulations are the applicable or relevant and appropriate requirement (ARAR), the state has determined for internal purposes (see attached memorandum dated November 4, 1996) that its current regulations are equivalent to the federal regulations with the exception of the following:

The state requires monitoring and cleanup of the vadose zone and surface water. In contrast, the federal regulations require only monitoring and cleanup of surface water. Thus the state requirement is broader and therefore an ARAR for the vadose zone beneath the landfill and any surface water affected by the landfill.

The state requires monitoring points to be located wherever necessary to detect a release at the earliest opportunity, given site-specific conditions. The federal regulations require downgradient monitoring at the relevant point of compliance. Thus, the state requirement potentially is broader and may be an ARAR.

The state requires that seismic design criteria withstand all damaging motions caused by an earthquake. The federal regulations address only horizontal acceleration. Therefore, the state requirement is broader and an ARAR.

The state requires a minimum five-foot separation of waste from groundwater, while the federal regulations do not. Thus, the state requirement is broader than the federal and potentially an ARAR.

The state distinguishes between hazardous, designated, non-hazardous and inert wastes, while the federal regulations address only solid waste and hazardous waste. Thus, state regulations imposing requirements for designated wastes are broader than the federal requirement and may potentially be an ARAR.

In addition, the state adopted requirements regarding Construction Quality Assurance (Title 14, Section 17774), Final Site Face (Title 14, Section 17777), Final Drainage (Title 14, Section 17778 (e),(f)(1), (g) and (j)), Slope Protection and Erosion Control (Title 14, Section 17779) and Final Grading (Title 14, Section 17776), which are broader than the federal regulations and consequently, are potential ARARs. Because the state requirements are equivalent to the federal in all other respects, the remaining federal requirements in Part

258 are the ARAR. The assertion that the state regulations are the ARAR because the landfills no longer accept waste does not apply where waste will be consolidated to a new or existing landfill. This is further described below. Given the complexity of matching these regulations, the Navy may wish to simply cite both the federal and the state citations and note that the more stringent requirement as of the date of the ROD will be followed.

Response: *The Navy has cited both federal and state regulations and noted that the more stringent requirements will be followed.*

EPA SPECIFIC COMMENTS

Comment 5. Page 2. In #4, the second sentence should read: "Activation of the groundwater collection trench is contingent upon future leachate migration and exceedences of federal AQWC levels".

Response: *The text has been modified to describe the process for determining whether to begin extraction of groundwater from the collection trench.*

Comment 6. Page 2. In #8, wording should be changed to reflect that a document, such as the deed, needs an amendment. Suggest modifying the wording to read: "Institutional controls - Fencing, signs, operation and maintenance (O&M) of Building 191 pump station and drain/subdrain system, restrictions on cap disturbances and amendment of the Moffett Federal Airfield deed to incorporate these restrictions".

Response: *Recorded deed restrictions are not necessary to implement the required institutional controls while Moffett Field remains federally owned land in the custody of federal agency..*

Comment 7. Page 2. It is stated: "...the selected remedy also includes construction of a groundwater collection trench as a contingency measure to provide immediate protection to this adjacent surface water...". Clarify that federal AWQC will be used as the trigger for activation of the groundwater collection trench.

Response: *Please see the response to EPA comment 2.*

Comment 8. Page 3, Paragraph 2, Last Sentence. Please replace "Master Plan" with the appropriate document, as there apparently is no Master Plan.

Response: *The Navy will consult with NASA to identify the correct land use planning documents and federal property records that must be amended for the purpose of implementing the institutional controls..*

Comment 9. Section 2.5.2.2, Page 19, Paragraph 1. Please update the mention of the Alternatives Analysis Tech Memo, as it has been updated since February 3, 1997.

Response: *The text has been modified to refer to the Final Alternatives Analysis Technical Memorandum submitted in April 1997.*

Comment 10. Section 2.6.1, Page 20, Paragraph 1. Clarify that although a human health risk assessment has limited use, it was performed and is part of the OU2 Remedial Investigation (RI) Report (IT 1993a).

Response: *Section 2.6.1 has been modified to state that even though a human health risk assessment has limited use, one was conducted and is contained in the OU1 RI report.*

Comment 11. Figure 3, Page 21. Please remove the "Cross Section Location" symbol from the legend, as it is not used, and replace it with a dashed line that shows the approximate boundaries of the waste to be excavated.

Response: *Figure 3 has been corrected accordingly.*

Comment 12. Section 2.6.2, Page 25, Paragraph 3. Provide a schedule for the completion of the U.S. Army Corps of Engineers (COE) wetlands delineation currently that is underway.

Response: *Wetlands areas at MFA using the COE criteria are delineated in the Final Phase I Site-wide Ecological Assessment Report (PRC and MW 1995). Section 2.6.2 has been corrected accordingly.*

Comment 13. Section 2.7.1.2.1, Page 26, 27. Please replace "Master Plan" with the appropriate document.

Response: *Please refer to the response to EPA comment 8.*

Comment 14. Section 2.7.1.2.3, Page 29. Clarify that federal AWQC will be used as the trigger for activation of the groundwater collection trench.

Response: *Please see the response to EPA comment 2.*

Comment 15. Section 2.7.2, Page 34, Third Full Paragraph. Following general comment 1, the ROD should more specifically describe the steps that will be taken to minimize the likelihood that hazardous waste will inadvertently be consolidated into the Site 1 landfill. It is important that a loophole is not created, which would allow, or give the impression that the Navy has been allowed to dispose of hazardous waste in a solid waste landfill. In part, this section should describe the visual inspection of containers and other materials and the Navy's agreement to send them off-site. In addition, to the extent that any soil visually appears to be contaminated, it should also be sent off-site. The ROD should also state that the employment of the state's CAMU criteria shall not be interpreted or construed to exempt the Navy from taking such agreed steps.

Response: *The Navy will not place containers of liquid waste excavated from Site 2 at Site 1. Furthermore, free liquids observed in the Site 2 excavation that are clearly not groundwater (for example, free-phase paints, oils, or solvents) will be removed and not placed at Site 1. These liquids will be tested and disposed of appropriately off site. Freely mobile waste materials, such as liquids contained in drums or cans, will not be placed at Site 1 but will be shipped off site to an appropriate disposal facility. Discolored or sludge-like soils will be excavated from Site 2 and consolidated at Site 1. Although Site 1 is designated as a*

CAMU, the Navy will take these additional steps for handling mobile, liquid wastes. Section 2.7.2 has been expanded to include this discussion.

Comment 16. Section 2.10, Page 50, Last Bullet. To be consistent with the Proposed Plan of December, 1995, the permeability should read 10^{-8} (1E-8) centimeters per second (cm/sec) minimum.

Response: *The description of the hydraulic conductivity of the low-permeability layer is correctly stated as 1E-6 cm/sec. The proposed plan incorrectly listed the standard for the barrier layer hydraulic conductivity as 1E-8 cm/sec. A discussion of this error has been added to Section 2.9.1, which describes changes to the alternative 2 cap design. Federal landfill cap requirements [40 Code of Federal Regulations (CFR) 258.60(a)(1)] state that the permeability of the cap must be lower than the bottom liner or natural subsoils or 1E-5 cm/sec, whichever is less. State requirements [23 California Code of Regulations (CCR) 2581(a)(2)] are similar except that a permeability of 1E-6 cm/sec is required. Site 1 has no bottom liner, so this portion of the requirement does not apply. Samples of the native soils beneath Site 1 have been laboratory tested for hydraulic conductivity. Results ranged from approximately 1E-9 to 1E-5 cm/sec. Most samples produced results near 1E-8 cm/sec. However, the distribution of permeable units beneath Site 1, as for all of MFA, is highly nonuniform and the observation that most samples yielded a hydraulic conductivity of 1E-8 does not in any way indicate that Site 1 is surrounded by soils that have conductivities of 1E-8 cm/sec or less. The fact that some samples showed hydraulic conductivities as high as 1E-5 demonstrates this uneven distribution of materials. Consequently, in evaluating the cap requirements, a hydraulic conductivity of 1E-6 cm/sec is more stringent than the requirement that the conductivity be less than the native subsoils. Therefore, the description of the remedy in Section 2.10 is correct and the statement in the proposed plan is in error. Section 2.9.1 has been modified to clarify this error.*

Comment 17. Section 2.10, Page 51, Bullet 4. Add a section to this bullet to read: "...and restrictions on cap disturbances and amendment of the MFA deed (or appropriate document)".

Response: *Please refer to the response to EPA comment 6.*

Comment 18. Section 2.10, Page 51, Last Paragraph. Clarify in this paragraph that federal AWQC will be used as the trigger for activation of the groundwater collection trench.

Response: *Please see the response to EPA comment 2.*

Comment 19. Section 2.10, Page 52, Paragraph 1. The mention of a "Master Plan" should be replaced with the appropriate document, since a Master Plan does not seem to exist. NASA, as caretaker of this federal property will probably be the entity to affect any changes, possibly in a deed. In this section, the following language should be added to the ROD to further clarify what is required to occur. It is language adapted from a Marine Corps Base Barstow ROD.

"The Moffett Federal Airfield (legal document [e.g., deed]) will be amended to incorporate the land use limitations and O&M requirements. As the Navy transferred control of the base to NASA on July 1, 1994, and NASA is not a party to the federal facilities agreement (FFA) or this ROD, the Navy agrees to enter into an agreement with NASA to obligate

NASA to comply with the use restrictions discussed below, or to otherwise provide assurance that such use restrictions will not be violated. Approval of the selected remedy is conditioned upon the Navy's obtaining an agreement or sufficient assurances from NASA regarding such use restrictions. The use restrictions are discussed below.

To ensure that human health and the environment are protected in the future, absent the prior approval of all of the FFA signatories, NASA or any future owners or operators, their heirs, successors, assigns, employees, or contractors, lessee or any other person exercising control over the Site now or in the future (hereinafter collectively referred to as "Owner/Operator") are prohibited from (i) breaching the Site 1 landfill cap or other portion of the landfill, whether through trenching, excavation or any other activity, or (ii) ceasing the operation and maintenance of the Building 191 pump station and drain/subdrain system. These restrictions do not apply to maintenance activities intended to (i) preserve, restore or maintain the physical and structural integrity of the Site 1 landfill cap, or (ii) repair or maintain the Building 191 pump station and drain/subdrain system.

Any Owner/Operator proposing to breach the Site 1 landfill cap or to cease operation and maintenance of the Building 191 pump station and drain/subdrain system for any reason other than the purposes stated above shall first submit written notification of such proposal to the FFA signatories. The Owner/Operator shall prepare and include in the written notification of such proposal an evaluation of the risk to human health and the environment and an evaluation of any need for additional remedial action resulting from the proposed action and shall propose any necessary changes to the remedial action selected in this ROD. The EPA will advise whether a ROD amendment or an explanation of significant differences (ESD) document is required. The FFA signatories must provide written concurrence with the Owner/Operator's evaluation of risk, its proposal and any proposed changes to the remedial action necessary to implement the proposal before such an action may be implemented.

NASA shall notify the FFA signatories of any plan to lease or transfer any real property parcel which includes the Site 1 landfill or the Building 191 pump station and drain/subdrain system to any other person or entity, whether federal or non-federal. Such notification shall be provided at least 30 days in advance of the lease or transfer conveyance. NASA shall comply with Section 120(h)(3) of CERCLA in any such transfers to a non-federal entity. Any transfer to a non-federal party shall attach deed restrictions imposing the use restrictions and notice requirements described herein; the deed restrictions shall be imposed in consideration of the transfer and shall run with the land. Any lease or sublease shall impose such use restrictions and notice requirements upon the lessee and any sublessee.

Any land use plan or other planning restrictions used by NASA shall be amended to incorporate the above-mentioned use limitation and notice requirements for the Site 1 landfill and the Building 191 pump station and drain/subdrain system. If NASA does not have such a land use plan, NASA, the Navy, EPA and the state shall enter into a memorandum of agreement for the purpose of binding NASA to the above-discussed use restrictions. The NASA land use plan or agreement will also (i) include language that describes the risk to human health and the environment that exists at the Site 1 landfill or that may arise in connection with ceasing operation and maintenance at the Building 191

pump station and drain/subdrain system; (ii) reference the OU 1 Remedial Investigation and Feasibility Study and this ROD by full title, date and storage location; and (iii) provide a legal description (in metes and bounds) of the boundaries of the Site 1 Landfill. Any amendments to NASA's land use plan or any agreement with NASA will be completed within 1 year following signing this ROD. The FFA signatories will be provided with a copy of such amendment to the land use plan or memorandum of agreement."

In addition, since Moffett Federal Airfield no longer is controlled by the Navy, the Memorandum of Understanding (MOU) between Navy and NASA (dated December 22, 1992) should be cited in the ROD. This document states that the Navy is responsible for environmental site remediation related to Navy activities, but that NASA is responsible for daily non-environmental operations.

Response: *The Navy agrees that the mention of a "Master Plan" was a misnomer. Because land uses at Moffett Field are no longer directly controlled by the Navy and NASA's land use planning processes are not identical to the Department of Defense planning process, the Navy will consult with NASA to develop a process based upon NASA's land use planning and real property records. The use restrictions noted in EPA comment 19 will be adapted for use in the process to assure that the required institutional controls will be properly implemented at Moffett Field while the property remains federally owned land and to also provide a basis for the development of appropriate notices and land use covenants binding on subsequent land owners in the event of any conveyance of the property. Information concerning the MOU has been added to Section 2.2.*

Comment 20. Section 2.10, Page 52, Paragraph 1. In the previous version of this document (December 24, 1996), there was language in this section describing increases to the hydraulic head (and leachate elevation) due to loading from the consolidated waste. It was removed from this version of the document. Either explain why it was removed or include it in the text of the final version.

Response: *The text from the previous version of the ROD was removed because it discussed groundwater elevation monitoring in the leachate wells at Site 1. These wells were proposed to be monitored during construction, but instead will be destroyed before construction starts. Groundwater elevations in the perimeter wells will be measured at least weekly during construction to monitor for changes in groundwater elevation. Long-term monitoring of groundwater elevations will be in accordance with the Site 1 long-term groundwater monitoring plan (scheduled to be submitted in July 1997).*

Comment 21. Section 2.11.1, Page. 52, Final Paragraph. Following "pertinent" add "federal and".

Response: *The text has been modified accordingly.*

Comment 22. Section 2.11.2.1, Page 55, Paragraph 2. Following "Chemical-specific ARARs do not exist for landfill refuse" add "or soils."

Response: *The text has been modified accordingly.*

Comment 23. Section 2.11.2.1, Page 55, Last Paragraph. Clarify in this paragraph that federal AWQC will be used as the trigger for activation of the groundwater collection trench.

Response: *Please see the response to EPA comment 2.*

Table 1 Comments 24 - 34:

Comment 24. Regarding regulations applying to 100 year flood plains, the correct federal citation is 40 CFR 258.11. Please delete the reference to 40 CFR 264.18(b) (which applies to hazardous waste facilities) and 40 CFR 761.75.

Response: *The Navy agrees that 40 CFR Part 258.11 is the more appropriate citation for flood plain requirements. However, the Navy will not be operating a landfill, so these requirements are not applicable, but are, at most, relevant and appropriate. The text has been modified accordingly.*

Comment 25. Regarding the requirements for landfill cap design and closure, the comment no longer applies because the selected remedy employs consolidation. By moving waste from Site 2 to Site 1, the action triggers the Subtitle D requirements. Please delete the comment.

Response: *The text has been revised to clarify that RCRA Subtitle D or CCR Title 14 requirements, whichever are more stringent, are the ARARs for the Site 1 landfill cap.*

Comment 26. 17773(a). EPA has taken the position at other federal facilities that employing a registered engineer or certified engineering geologist is not an environmental requirement, and therefore, not an ARAR. The Navy, however, may agree to comply with this requirement regardless of whether or not it is an ARAR. This comment also applies to 17774(b), 17777(c), 17778(b), 17779(b) and 2580(b).

Response: *As suggested by EPA, the Navy has removed references to CCR Title 14 sections 17773(a), 17774(b), 17777(c), 17778(b), 17779(b) and 2580(b).*

Comment 27. The citation listed as 17774(I) is different from the last version of the document. It was listed there as 17774(i). Please clarify which is correct.

Response: *The correct citation is 17774(i). However, a geosynthetic membrane is not proposed as part of the Site 1 cap design. Consequently, this citation has been deleted from Table 1.*

Comment 28. 17788. The corresponding regulation is 40 CFR 258.61. Only 17788(3) (site security), clearly is broader than the federal requirement. 17778(5) is the same and therefore the federal requirement is the ARAR. 258.61(a)(2) and (a)(3) are not addressed in the state citation. The time periods are the same and therefore the federal requirement is the ARAR. Given the complexity of matching these regulations, the Navy may wish to simply cite both the federal and the state citations and note that the more stringent requirement as of the date of the ROD will be followed.

Response: *The Navy has added 40 CFR Parts 258.61(a)(1), (3), and (4) to the list of ARARs on Table 1. Section 258.61(a)(2) was not included as there is no leachate collection*

system at Site 1. In the text describing the ARARs, the Navy added language to explain that both the state and federal requirements for landfills are cited in the ROD but that the more stringent standard will be followed in developing the remedial design.

Comment 29. 17792. These regulations address change of ownership during closure or post-closure. These seem to duplicate the institutional control restrictions which are part of the remedy. In addition, the requirements appear to be procedural and do not set substantive requirements for the closure period (e.g. it does not restrict the kinds of use for environmental reasons, such as prohibiting residential use). Please delete this citation.

Response: *Section 17792 of CCR Title 14 has been deleted from Table 1.*

Comment 30. 17778. The requirements are equivalent to the requirements in 40 CFR 258.61. Please add or substitute that citation.

Response: *Section 17778 of CCR Title 14 identifies final drainage requirements for closed landfills; 40 CFR Section 258.61 identifies certain post-closure requirements. For this reason, it appears inappropriate to modify the reference to Section 17778 by replacing it with or adding a reference to 40 CFR Part 258.61. However, a reference to 40 CFR 258.26, which discusses run-on and run-off requirements, was added.*

Comment 31. 2581(1). The corresponding federal regulation is 40 CFR 258.60(a)(2). While the state requires a thicker layer of material (2 feet vs 18 inches), it allows the use of contaminated soil which is not provided for in the federal requirement. Thus, the state requirement is more stringent in one respect and less stringent in another. We suggest citing both the state and federal ARAR and noting that the more stringent requirement as of the date of the ROD will be followed.

Response: *The regulation in 23 CCR 2581(a)(1) refers to the foundation layer beneath the barrier (low-permeability) layer. The requirement in 40 CFR 258.60(a)(2) applies to the barrier layer itself (termed the infiltration layer in the federal regulation). Consequently, a direct comparison between the two regulations is inappropriate. The regulation in 23 CCR 2581(a)(2) describes the barrier layer and requires 1 foot layer of soil having a permeability of at least 1E-6 cm/sec. The federal regulation requires a barrier layer that is at least 18 inches thick [258.60(a)(2)] and has a permeability of at least 1E-5 cm/sec [258.60(a)(1)]. As explained in the response to EPA comments 4 and 28, both state and federal requirements are cited in the ROD and the more stringent requirement as of the date of the final ROD will be followed. The Navy considers the state regulation to be more stringent because a lower permeability is specified.*

Comment 32. 40 CFR 258.10 and 258.12. The Navy should analyze whether these regulations (regarding proximity to airports and wetlands) are applicable or relevant and appropriate for the remedy selected at OU1.

Response: *The Navy has concluded that the requirements in 40 CFR Parts 258.10 and 258.12 should not be added to the list of ARARs for this action. Section 258.12 contains wetlands prohibitions for new municipal solid waste units and lateral expansions; this action does not involve creation of a new unit or the lateral expansion of an existing*

unit. Section 258.10, relating to locating landfills near airports, applies to new or existing units and lateral expansions near public-use airports. MFA is not located near a public-use airport as defined in 40 CFR 258.10 and MFA has no operating landfills.

Comment 33. 14 CCR 17702. Please look at 40 CFR 258.21 and 258.22, as there are some requirements that appear to go unaddressed. In addition, please look at 40 CFR 258.23 (Explosive Gases Control), 40 CFR 258.24 (Air Criteria) and 258.28 (Liquids Restrictions).

Response: *The requirements described by 40 CFR 258.22 (disease vector control) and 258.28 (liquids restrictions) have been added to Table 1. The landfill operational requirements of 40 CFR 258.21 (cover materials), 258.23 (explosive gases control during operations), and 258.24 (air criteria for burning solid waste) are not relevant and appropriate to the actions at OU1 and, therefore, were not added to Table 1. Postclosure explosive gas control, however, is addressed by 40 CFR 258.61(a)(4), which has been included in Table 1.*

Comment 34. 22 CCR 66262.10-.45. These regulations appear to direct the Navy to handle materials which are going to be shipped off-site in accordance with these requirements. If these regulations are intended to address hazardous wastes which will be shipped off-site, then they are not an ARAR, but are applicable to materials because they will be handled off-site. The corresponding federal citations are 40 CFR Part 262. A stringency comparison should be done to show which requirement is more stringent, state or federal.

Response: *The Navy included the requirements of 22 CCR Section 66262 because, to the extent that they contain substantive on-site requirements for generators, they may be considered ARARs. However, the Navy has revised the citation to list only those sections containing substantive requirements (Sections 66262.10-.12 and 66262.30-.34). The Navy agrees that for actions occurring off site, all requirements, both administrative and substantive, apply. As EPA explains in comment 41 below, approval of the state's hazardous waste program means that the state requirements operate in lieu of the federal requirements. Therefore, no stringency comparison is necessary.*

Comment 35. <u>Section 2.11.2.2, Page 59, Location Specific ARARs, Flood Plains</u>. Change 40 CFR 264.18(b) to 40 CFR 258.11. Part 264 applies to hazardous waste while Part 258 applies to non-hazardous solid waste.

Response: *The text has been modified as suggested.*

Comment 36. <u>Section 2.11.2.2, Page 60, Executive Order 11990, Protection of Wetlands, 40 CFR 6.302</u>. Add 40 CFR 258.12 and an appropriate analysis.

Response: *As explained in the response to EPA comment 32, the Navy has determined that 40 CFR 258.12 is not an ARAR for this action.*

Comment 37. <u>Section 2.11.2.3, Page 62, Paragraph 2, First Sentence</u>. This sentence states: "State and federal hazardous waste landfill closure regulations (Subtitle C of RCRA and Title 22 CCR)

are not applicable...". Sections of Title 22 CCR are applicable; see Table 1. Please correct this discrepancy.

Response: *The Navy recognizes that certain provisions of Title 22 CCR are ARARs for this action. However, the requirements for landfill closure in Title 22 CCR Section 66264.310 are not ARARs because the landfills are not RCRA Subtitle C facilities. The text has been revised to clarify that the particular reference in this sentence is to Section 66264.310.*

Comment 38. Section 2.11.2.3, Page 62, Landfill ARARs, Last Sentence. Please change this sentence to conform to comments above that indicate that only some of the state regulations are ARARs, while the other federal regulations are the ARAR.

Response: *As explained above, the text has been revised to state that either Subtitle D of RCRA or Title 14 CCR, whichever is more stringent, is the ARAR.*

Comment 39. Section 2.11.2.3, Page 63, Paragraph 1. Clarifications for designating Site 1 a CAMU should be included here, as mentioned in general comment 1.

Response: *Section 2.11.2 has been expanded to clarify the use of Site 1 as a CAMU. Please also refer to the responses to EPA comments 1 and 15.*

Comment 40. Section 2.11.2.3, Page 63, Paragraph 1. Following the last sentence, add: "Notwithstanding the employment of the CAMU for Site 1, the Navy will visually inspect all materials removed from Site 2, will send containers, liquid and any soils which on the basis of a visual inspection appear contaminated off-site to an authorized hazardous waste disposal facility."

Response: *Section 2.11.2 has been expanded to incorporate additional information on the handling of liquid wastes. Discolored or sludge-like soils will be excavated from Site 2 and consolidated at Site 1. Please also refer to the response to EPA comment 15.*

Comment 41. Section 2.11.2.3, Page 63, Paragraph 3. The red-lined language is incorrect. Unlike Subtitle C, approval of a state program does not allow the state regulations to operate in lieu of the federal regulations. Subtitle D is unique in that its requirements apply regardless of whether or not the state has a federally approved solid waste program. Thus, arguable in a citizen suit, parties may allege that the state requirements are not equivalent to the federal regulations. In the ARARs context, the potential for contesting actions would be that EPA did not select the correct ARAR if the state requirement is not more stringent. If the landfills were not being consolidated, there might be an argument that the federal regulations do not apply and, hence the state regulations are the ARAR. Consolidation, however, renders Site 1 a landfill receiving solid waste after the applicable date for the federal regulations. A stringency comparison was done to compare to the extent possible for the state and federal requirements and these are presented in comments above. Accordingly, delete the red-lined sentences and substitute with appropriate language.

Response: *The text has been modified accordingly to clarify that Subtitle D of RCRA or Title 14 CCR, whichever is more stringent, is the ARAR.*

Comment 42. Section 2.11.2.3, Page 63, Last Paragraph. Change the first sentence to reflect that federal regulations also apply. Given that the state requirement is equivalent to the federal with the exception of the requirement to monitor in the vadose zone, it does not seem that the state requirement is still the ARAR under these circumstances.

Response: *The text has been revised to also include a reference to federal regulations in 40 CFR 258 Subpart E.*

Comment 43. Section 2.11.2.3, Page 64, Paragraph 1. Please have all citations of state ARARs conform to meet the Table 1 comments regarding inclusion of federal ARARs.

Response: *The text has been modified accordingly.*

Comment 44. Section 2.11.2.3, Page 64, Paragraph 2. Clarify in this paragraph that federal AWQC will be used as the trigger for activation of the groundwater collection trench.

Response: *Please see the response to EPA comment 2.*

Comment 45. Section 2.11.2.4.1, Page 65. A summary of EPA concerns of designating Site 1 a CAMU should be included here, as mentioned in general comment 1.

Response: *This section has been expanded to clarify the use of Site 1 as a CAMU. Please also refer to the responses to EPA comments 1 and 15.*

Comment 46. Section 2.11.2.4.1, Page 65, Paragraph 1. Please correct the first line to read: "...within a facility designated for the purpose of implementing corrective action requirements...".

Response: *The text has been changed accordingly.*

Comment 47. Section 2.11.2.4.1, Page 65, Paragraph 2. Please correct the last line to read: "...the Site 2 remediation wastes and meeting LDRs and minimum technology requirements (MTRs)".

Response: *The text has been changed accordingly.*

Comment 48. Section 2.11.2.4.3, Page 68, Paragraph 2. "Minor modifications to the area may be necessary during remedial design of the Site 1 cap...". As mentioned in EPA comments on the *Draft Operable Unit 1 Alternatives Analysis Technical Memorandum*, any impacts to the wetlands surrounding Site 1 need to be agreed to by the natural resource trustees, as it provides useful habitat to various ecological receptors.

Response: *Modifications to any wetland areas at Site 1 will be coordinated with the natural resource trustees. Specific details will be incorporated into the OU1 remedial design.*

Comment 49. Section 2.11.2.4.3, Page 68, Paragraph 3, Remediation Waste Management Requirements. Check to be sure that the citations to Title 14 conform to the comments on the ARARs table.

Response: *The text has been modified accordingly.*

Comment 50. Section 2.11.2.4.3, Page 71, Paragraph 1. Title 22 is included in the ARARs table (Table 1) and should be mentioned here for completeness.

Response: *The text has been modified accordingly.*

Comment 51. Section 2.11.2.4.3, Page 71, Paragraph 2, Summary of Specific Information. The CAMU needs a statement that it is being designated by the appropriate regulatory authority. This section should add, or be changed to include, a section designating the area as a CAMU based upon the finding of the regulator(s). At a non-federal site that is not state lead, EPA would make the designation. In this instance, it might require an action of both regulatory agencies. Please add the following:

"By concurring on the ROD, EPA and the state designate as a CAMU the area designated for a landfill under the selected remedial alternative as shown in Figure 8. The CAMU regulation is an ARAR as discussed in Section 2.11 of this ROD. The ROD amendment documents the CAMU designation pursuant to 40 CFR part 264.552(f) as implemented through the California EPA, Department of Toxic Substances Control, Hazardous Waste Regulations, Title 22, Chapter 14, 66264.552. Hereinafter the CAMU regulation will be referred to as Section 66264.552. The proposed plan for this ROD amendment shall satisfy public notice requirements under such CAMU regulations. In designating the CAMU, EPA and the state have considered the criteria set forth in Section 66264.552 and determined that the CAMU satisfies each of the criteria set forth therein."

Response: *An additional subsection has been added to the text to include the requested information.*

Comment 52. Section 2.11.4, Page 72, First Line. Please correct this line to read: "...will permanently remove the threats associated with Site 2.".

Response: *The text has been corrected accordingly.*

DTSC GENERAL COMMENTS

Comment 1. As we have pointed out in our letter dated November 20, 1996 that the state agreed to consolidate remediation waste from Site 2 into Site 1. The state also agreed with the designation of Site 1 as a corrective action management unit (CAMU), provided the Navy meets the provisions of Title 22 California Code of Regulations (CCR), Division 4.5, Chapter 14, Article 15.5, Section 66264.552. We have reviewed the revised consolidation alternative in the subject document. In general, the Navy has well explained the consolidation approach, clearly defined that wastes placed at Site 1 (CAMU) must be remediation waste from Site 2, and effectively described the seven criteria to evaluate the appropriateness of a CAMU. However, it is also important to recognize that, based on field investigation, only deminimis amount of hazardous wastes are expected to be found in Sites 1 and 2 during the excavation and construction process. It does not preclude the possibility of changing remedy, if unexpected hazardous wastes are discovered at both sites.

Response: *Section 2.11.2 has been expanded to clarify the use of Site 1 as a CAMU. Please also refer to the responses to EPA comments 1 and 15.*

DTSC SPECIFIC COMMENTS

Comment 1. Page 2, Paragraph 1; Section 1.0. The designating of the Site 1 landfill as a CAMU should be in accordance with provisions of Title 22 CCR, Division 4.5, Chapter 14, Article 15.5, Section 66264.552.

Response: *The complete state regulation citation has been added to the text.*

Comment 2. Page 17, Paragraph 5; Section 2.5.2.1. Please clarify the end of disposal activities. To our understanding, debris (possible disposal activities) were identified next to Zook Road area by aerial photographs taken in 1965. In addition to the "small arms range", an old pistol range was at the southeast corner of Site 2.

Response: *The description of activities at Site 2 has been expanded to state that aerial photographs indicate waste disposal activities at Site 2 ended in 1952. Surface dumping of inert construction debris and operation of a pistol range are not considered waste disposal activities.*

Comment 3. Page 18, Paragraph 2; Section 2.5.2.1. Please confirm the operating time of Site 2. It seems that we don't have enough information from aerial photograph to support that Site 2 disposal activities ceased in 1952.

Response: *Analysis of the aerial photographs from Site 2 is the primary tool for estimating the period during which Site 2 received waste. Excavation, typical of the disposal methods used at the time, is the main indicator of waste disposal. These excavation activities ended in 1952; therefore, the period of waste disposal for Site 2 is likewise believed to end in 1952. Whether disposal activities ended in 1952 or 1963 does not materially affect the remedy for Site 2.*

Comment 4. Page 34, Paragraph 4; Section 2.7.2. Please delete the third sentence of this paragraph which starts with "By designating Site 1 ..."

Response: *This statement within the description of the consolidation alternative discusses the fact that the CAMU regulations eliminate the need to test waste materials to evaluate whether they are hazardous. The statement is correct; however, this section has been expanded to explain restrictions the Navy will observe if containers of liquid wastes are excavated at Site 2. Section 2.11 has also been modified to include the other planned restrictions on the use of Site 1 (see the response to EPA comment 1).*

Comment 5. Page 58, Table 1. The state appreciates Navy's efforts to include part of Title 22 closure requirements as applicable or relevant and appropriate requirements (ARARs) in the subject document. Furthermore, the following sections should be considered in the ARAR table as well: 22 CCR Division 4.5, Chapter 11, Articles 4 to 5 and 22 CCR Division 4.5, Chapter 18, Articles 1 to 5.

Response: *The Navy has reviewed the sections cited by the state for possible inclusion in the ARARs table. The Navy has concluded that 22 CCR, Division 4.5, Chapter 11, Article 4, on RCRA listed hazardous waste, and Article 5, concerning hazardous waste categories, are not ARARs because these categories of waste do not apply to the materials that will be removed from Site 2 and consolidated into Site 1. Based on the Navy's review of the LDRs, 22 CCR, Division 4.5, Chapter 18, Articles 1 through 5, the Navy has added 22 CCR Section 66268.7(a) and 66268.50(a)(1) to the list of ARARs. Those provisions require a generator to determine if its waste is subject to LDRs (Section 66268.7(a)) and, if so, to store the waste in tanks, containers, or containment buildings and comply with the accumulation requirements under CCR Section 66262.34 and Chapters 14 and 15. These requirements apply only to the remediation waste that will be shipped off site for disposal; none of the other LDR requirements cited are ARARs for the material going off site. Rather, the landfill operator will be responsible for treating the waste prior to land disposal. Because all the other wastes will be consolidated in a CAMU, the LDRs are not triggered and, therefore, are not cited as ARARs for the consolidation component of this action.*

Comment 6. Page 58, Table 1. Liquid and containerized waste encountered from both Site 1 and Site 2 should be tested or be disposed off site at a Class I landfill.

Response: *The text describing 22 CCR 66261 has been revised to state that liquid and containerized waste from both Sites 1 and 2 will be tested and disposed of off site.*

Comment 7. Page 58, Table 1. In 22 CCR, Division 4.5, Chapter 12, only Article 1 is applicable.

Response: *The entry on Table 1 has been modified to include the generator requirements in Articles 1 and 3. The Navy has included Article 3, the pretransport requirements on packaging, labeling, marking, and accumulation of hazardous waste, as ARARs for the remediation waste.*

Comment 8. Page 62, Paragraph 3; Section 2.11.2.3. Title 22 closure requirements are ARARs for OU1 ROD as listed in Table 1. They are applicable only if wastes from Sites 1 and 2 are classified as hazardous.

Response: *The text has been revised to clarify that the Title 22 CCR landfill closure requirements in Section 66264.310 are not ARARs for this action. The Navy recognizes that other RCRA requirements, as identified on Table 1, are ARARs.*

Comment 9 Page 62, Paragraph 3; Section 2.11.2.3. Liquid and containerized waste encountered from both Site 1 and Site 2 should be tested or be disposed off site at a Class I landfill.

Response: *Containerized liquid wastes excavated at Site 1 or 2 will be tested and disposed of off site at an appropriate disposal facility. This section has been expanded to include this information.*

Comment 10. Page 64, Paragraph 3; Section 2.11.2.3. Please delete the last two sentences of this paragraph.

Response: *The text has been modified as requested.*

Comment 11. Page 25, Paragraph 3; Section 2.6.2. The second part of the last sentence should be restored in the subject document. It seems that the Navy is only complying with the U.S. Army Corps of Engineers (COE) wetland delineation criteria, not the delineation method provided by the California Department of Fish and Game (DFG). However, DFG's concern on the acreage and habitat value of the affected wetland still maintain valid and should be addressed in the ROD.

Response: *The Navy will comply only with the COE wetland delineation criteria. The DFG delineation method is not an ARAR.*

Comment 12. Page 99, Paragraph 2; Section 3.2.2. Please explain why the statement "wetland replacement will be a component of the remedial action" was removed.

Response: *Please refer to the response to DTSC specific comment 11.*

RWQCB GENERAL COMMENTS

Comment 1. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is providing the Navy with this comment to document the RWQCB's agreement of the CAMU designation of the Site 1 landfill within Operable Unit 1 (OU1). While CAMU designation of the Site 1 landfill affects the Resource Conservation and Recovery Act (RCRA) requirements, the designation does not affect Title 23 requirements. Title 23 CCR Chapter 15, Article 2, requires waste to be classified as hazardous, designated, nonhazardous, or inert and then disposed appropriately per the classification. Information collected during OU1 design activities indicates that materials in-place at the Site 2 landfill are expected to be non-hazardous municipal solid waste. After discussions with USEPA, DTSC, IWMB, and the Navy, the RWQCB agrees to use visual screening as the method to segregate excavated material acceptable for consolidation at the Site 1 landfill from those materials requiring off-site disposal at a Class 1 landfill. Additionally, it is agreed that the Site 1 landfill consolidation project shall only allow solid waste materials excavated from the Site 2 landfill for consolidation. Include Title 23 CCR Chapter 15, Article 2, as an ARAR in the text and ARAR Table 1.

Response: *The Navy acknowledges RWQCB's agreement to use visual screening for segregating waste materials. The Navy does not intend to consolidate any wastes at Site 1 other than those excavated from Site 2. The Navy intends to also use soils currently stockpiled at the bioremediation pad for fill at Site 1. This plan was discussed during and after the project manager's meeting on May 7, 1997 and met with the general approval of the regulatory agencies. Citation of 23 CCR Chapter 15, Article 2, which discusses the classification of waste materials, would be inconsistent with the agreed upon visual screening approach. A central element of the consolidation project relies on visual screening. The requirements of 23 CCR 2520, which require dischargers to characterize wastes, would threaten the viability of the consolidation project.*

Comment 2. Visual screening shall be performed to segregate those excavated materials with liquid waste or containers containing free liquid from those materials which do not contain liquid waste or containers containing free liquid. Material containing liquid waste or containers containing free liquid shall be taken off-site and disposed in a Class 1 landfill.

Response: *The Navy will not place containers of liquid waste excavated from Site 2 at Site 1. Furthermore, free liquids observed in the Site 2 excavation that are clearly not groundwater (for example, free-phase paints, oils, or solvents) will be removed and not placed at Site 1. These liquids will be tested and disposed of appropriately off site. Freely mobile waste materials, such as liquids contained in drums or cans, will not be placed at Site 1 but will be shipped off site to an appropriate disposal facility.*

Comment 3. The final vertical and horizontal extent of the excavation shall be delineated by soil sample collection and analytical laboratory analysis (on-site analysis suggested) prior to backfilling the open excavation. Analysis shall be performed to confirm the removal of materials with contaminant concentrations above background levels. The soil sample locations and final extent of the excavation shall be mutually agreed upon by the regulatory agencies and the Navy.

Response: *Samples will be collected after all wastes at Site 2 identified by visual screening have been removed. The Navy will coordinate with the regulatory agencies to select the number and locations of these samples. The Navy will consult with the regulatory agencies to determine the final excavation limits based on the results from these samples.*

Comment 4. While the Navy and the RWQCB have agreed to a minimum groundwater monitoring period of 3 years at Site 2, substantive requirements of Title 23 CCR, Chapter 15, Article 5 are applicable to the groundwater monitoring for Site 2. Please revise text and ARAR Table 1.

Response: *Because wastes will be excavated and removed from Site 2, the monitoring requirements are neither applicable nor relevant and appropriate at Site 2.*

Comment 5. Incorporate text to document that, prior to any disturbance of the wetlands, the Navy is required to obtain a water quality certification or a waiver of certification from the RWQCB as part of the nationwide permit 38 through the Army Corps of Engineers. While water quality certification is, in part, procedural, the state has the authority under the Clean Water Act, Sections 404 and 401, and state regulations in Title 23 CCR Chapter 17, Section 3830, et seq. to impose substantive requirements which include mitigation for significant impacts on the environment. Mitigation requirements will be based on the actual loss of wetland acreage, determined following the delineation of jurisdictional wetlands, and an assessment of the lost wetland's value. Additionally, specify which wetlands delineation manual will be followed and the rational for its selection.

Response: *The proposed landfill capping will affect potential wetlands in the vicinity of Site 1. However, the Navy and regulatory agencies have determined that a landfill cap is*

necessary to protect the environment. Because this action is being conducted under CERCLA, filling small areas of wetlands does not trigger requirements under Section 404 of the Clean Water Act. COE NWP 38 expressly provides that activities undertaken on a CERCLA site by authority of CERCLA as approved or required by EPA are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. The preamble explains that, consequently, notification to COE is not required for projects undertaken under CERCLA authority. Therefore, state water quality certification requirements under Section 404 of the Clean Water Act do not apply to this action because NWP 38, which requires this coordination with the state, does not apply. Further, the state regulations do not address substantive requirements. Rather, the cited regulations are procedural in that they only describe the process for obtaining water quality certification.

Comment 6. Active revegetation should be included as part of the selected remedy for Sites 1 and 2. Since natural habitat recovery rate would take an estimated 5 years, and active revegetation would enhance the recovery rate, while also preventing erosion, it is appropriate as part of the remedy.

Response: *Revegetation using regionally native plants will be included as part of the remedy for Sites 1 and 2.*

Comment 7. Incorporate the Stormwater Pollution Prevention Plan or federal stormwater requirements as ARARs in the text and ARARs Table 1 since consolidation and construction activities at Sites 1 and 2 will impact stormwater quality if performed during the wet season.

Response: Compliance with these requirements is expected to be achieved through implementation of control measures or best management practices identified in the station stormwater management plans or stormwater pollution prevention plans. The Navy will comply with this requirement by incorporating best management practices into its remedial design.

RWQCB SPECIFIC COMMENTS

Comment 1. Page 2, Section 1, Items 2, 3, and 7. Include the applicable sections of Title 23 CCR, Chapter 15.

Response: *CCR Title 14 regulations cited in this section incorporate requirements in CCR Title 23. The reference to 14 CCR in the general description of the remedy is preferred to maintain the clarity and simplicity of the description. Details, such as the further references to 23 CCR, are more appropriate in the ARARs table.*

Comment 2. Page 3, Section 1, Paragraph 1. Include the text similar to that on page 64 discussing future groundwater remediation and leachate disposal.

Response: *The text of this section has been expanded to include a discussion of future groundwater remediation and leachate disposal similar to that presented in Section 2.11.*

Comment 3. Page 3, Section 1, Paragraph 2. Describe the Master Plan.

Response: *Please refer to the response to EPA comment 19.*

Comment 4. Page 25, Section 2.6.2. Incorporate text to reflect the understanding that, prior to any disturbance of the wetlands, Navy is required to meet the substantive requirements of a water quality certification or a waiver of certification from the RWQCB as part of the nationwide permit 38. See general comment 5.

Response: *Requirements for a water quality certification are not applicable to this action. Please refer to the response to RWQCB general comment 5.*

Comment 5. Page 27, Section 2.7.1.2.3. Specify that as a substantive requirement under Title 23 CCR, Chapter 15, Article 5, the monitoring and response plan will be in an appropriate remedial design document. Include in the ARAR Table 1.

Response: *Section 2.7.1.2.3 has been modified to state that the groundwater monitoring program information for Site 1 would be contained in an appropriate remedial design document. Table 1 contains a reference to the groundwater monitoring requirements of 23 CCR Chapter 15, Article 5 and has been expanded to note that the required information will be included in an appropriate remedial design document.*

Comment 6. Page 29, Section 2.7.1.2.3. Specify that as a substantive requirement under Title 23 CCR, Chapter 15, Article 5, the monitoring and response plan will be in an appropriate remedial design document. Include in the ARAR Table 1.

Response: *Please refer to the response to RWQCB specific comment 5.*

Comment 7. Page 31, Section 2.7.1.2.4, Paragraph 1. State the tonnage trigger for Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34 which requires collection of landfill gas through a gas collection system approved by the Air Pollution Control Officer.

Response: *According to BAAQMD regulation 8-34-111.1, landfills smaller than 1 million tons are exempt from gas monitoring and collection requirements. Both the Sites 1 and 2 landfills are smaller than 1 million tons. Section 2.7.1.2.4 has been modified to include this information.*

Comment 8. Page 34, Section 2.7.2, Paragraph 2. Delete the sentences "These well locations... Figure 3." and "Post excavation...been removed." While it appears appropriate to begin the excavation at W2-10 and W2-8 and direct the excavation through visual screening, soil sampling and analytical laboratory analysis is required prior to completion of excavation and the beginning of backfilling. See general comments 2 and 3.

Response: *Samples will be collected after all wastes at Site 2 identified by visual screening have been removed. The Navy will coordinate with the regulatory agencies to select the*

number and locations of these samples. The Navy will consult with the regulatory agencies to determine the final excavation limits based on the results from these samples. Section 2.7.2 has been expanded to include this information. The referenced sentences have been maintained for clarity.

Comment 9. Page 34, Section 2.7.2, Paragraph 3. Delete the sentence "By designation...or hazardous." See general comment 1 and reference Chapter 15 requirements.

Response: *This statement within the description of the consolidation alternative discusses the fact that the CAMU regulations eliminate the need to test waste materials to evaluate whether they are hazardous. The statement is correct; however, this section has been expanded to explain restrictions the Navy will observe if containers of liquid wastes are excavated at Site 2. Section 2.11 has also been modified to include other planned restrictions on the use of Site 1 (see the response to EPA comment 1).*

Comment 10. Page 35, Section 2.7.2. Specify that groundwater at Site 2 will be monitored in accordance with applicable Title 23 Chapter 15, Article 5 requirements and that the Navy has agreed to monitor groundwater quality for a minimum of 3 years.

Response: *Because wastes will be excavated and removed from Site 2, the monitoring requirements are neither applicable nor relevant and appropriate at Site 2.*

Comment 11. Page 44, Section 2.8.3.2.3. Revise to include active revegetation as part of the remedy.

Response: *Section 2.8.3.2.3 has been revised to include revegetation using regionally native plants.*

Comment 12. Page 51, Section 2.10, Sentence 4. Provide text describing that one of the institutional controls will be in the form of a deed restriction presently held by NASA.

Response: *Please refer to the response to EPA comment 19.*

Comment 13. Page 52, Section 2.10. Incorporate active revegetation and describe the Master Plan.

Response: *The descriptions of the selected remedies for Sites 1 and 2 have been revised to include revegetation using regionally native plants. Please refer to the response to EPA comment 19 for discussion of the Master Plan.*

Comment 14. Page 55, Section 2.11.2.1, Paragraph 2. See general comments 1 and 4 and revise text and Table 1.

Response: *Because wastes will be excavated and removed from Site 2, the monitoring requirements are neither applicable nor relevant and appropriate at Site 2.*

Comment 15. Page 58, Table 1. Include the San Francisco Bay Basin, Water Quality Plan, June 1995. The actions selected are to close landfills and to require continued monitoring and collection of leachate, if generated. The Basin Plan's water quality objectives and

beneficial use designations are necessary for determining the water quality protection standard as required by Chapter 15 and for otherwise evaluating protection of water quality.

Response: *The scope of this action does not include active groundwater remediation and, therefore, it is inappropriate to cite the Basin Plan as a chemical-specific ARAR. However the Navy recognizes that provisions of the Basin Plan, notably the water quality objective and the beneficial use designations, should be considered in developing the monitoring program for Site 1. This information has been added to the ROD.*

Comment 16. Page 58, Table 1. Include Chapter 15, Article 5 groundwater monitoring requirements and stormwater requirements as ARARs for Site 2.

Response: *Because wastes will be excavated and removed from Site 2, the monitoring requirements are neither applicable nor relevant and appropriate at Site 2.*

Comment 17. Page 61, Section 2.11.2.2. Include wetland mitigation requirements.

Response *Requirements for wetland mitigation are not applicable to this action. Please refer to the response to RWQCB general comment 5.*

Comment 18. Page 63, Section 2.11.2.3, Paragraph 1. Delete the last sentence.

Response: *The text has been modified accordingly.*

Comment 19. Page 63, Section 2.11.2.3, Paragraph 2. See specific comment 1 and add that Chapter 15 requires the waste to be classified and disposed accordingly.

Response: *The Navy does not intend to consolidate any wastes at Site 1 other than those excavated from Site 2. Citation of 23 CCR Chapter 15, Article 2, which discusses the classification of waste materials, would be inconsistent with the agreed upon visual screening approach. A central element of the consolidation project relies on visual screening. The requirements of 23 CCR 2520, which require dischargers to characterize wastes, would threaten the viability of the consolidation project. Please also refer to the response to RWQCB general comment 1.*

Comment 20. Page 63, Section 2.11.2.3, Paragraph 3, Last Sentence. Identify that the documents required under Title 23 CCR Chapter 15, Article 9, Section 2596 and 2597 will be in an appropriate remedial design document.

Response: *Section 2.11.2.3 has been modified to state that the required information will be contained in an appropriate remedial design document.*

Comment 21. Page 63, Section. 2.11.2.3, Paragraph 4. Title 23 CCR, Chapter 15, Article 5 is an ARAR for both Sites 1 and 2 for groundwater monitoring.

Response: *Because wastes will be excavated and removed from Site 2, the monitoring requirements are neither applicable nor relevant and appropriate at Site 2.*

Comment 22. Page 64, Section 2.11.2.3, Paragraph 3. See general comment 1 and revise.

Response: *Please refer to the response to RWQCB general comment 1.*

Comment 23. Page 65, Section, 2.11.2.4.1, Paragraph 2. See general comment 1 and revise.

Response: *Please refer to the response to RWQCB general comment 1.*

Comment 24. Pages 68-71, Section 2.11.4.3. See general comment 1 and add the Title 23 CCR Chapter 15, requirements for each specific CAMU requirement.

Response: *Please refer to the response to RWQCB general comment 1.*

IWMB COMMENTS

Comment 1. 14 CCR Section 17766, Emergency Response Plan. This should be applicable to Site 1, due to the presence of methane and potential for explosive conditions (cap venting systems), and proximity to population receptors (golf course). An emergency response plan containing notification procedures and organizational responsibilities should be prepared and maintained for the site during the postclosure period.

Response: *Table 1 has been revised to include 14 CCR Section 17766(a).*

Comment 2. 14 CCR Section 17774, Construction Quality Assurance (CQA). This is appropriately designated as applicable. A multilayer prescriptive cap with a barrier layer is being proposed for Site 1. However, the substance of the CQA reports and documentation for final cover construction must also be included (17774(c)) to provide evidence that the prescriptive cap was constructed according to plans and specifications. The Closure Certification Report for Site 1 will be incomplete without appropriate CQA documentation for the cover.

Response: *Table 1 has been revised to include 14 CCR 17774(c) as an ARAR. The substantive requirements of the closure certification report will be included in an appropriate OU1 closure report.*

Comment 3. Please address what regulations will apply to the management of free liquids (leachate) from dewatering operations performed during the excavation of Site 2.

Response: *Groundwater extracted at Site 2 during dewatering operations will be used for dust control and moisture conditioning at Site 1. The dust control requirements of 14 CCR 17706 are relevant and appropriate for this action.*

Comment 4. 14 CCR Section 17783, Gas Monitoring and Control Requirements. This should be applicable in its entirety. Since Site 1 has generated 31 percent methane gas at its boundary and a prescriptive cover may effect subsurface gas migration, monitoring and

control requirements should be adhered to. The gas control trigger level of 1.25 percent concentration levels of methane within structures provides a standard for structures on or within 1,000 feet of the landfill. It also includes any structures on or within 1,000 feet of the landfill. It also includes any structures that may be proposed in the postclosure period of the site.

Response: *The Navy disagrees that all of the gas monitoring requirements in 14 CCR 17783 should be listed as ARARs. For example, there are no structures on site and, given the prohibition against cap disturbances, none will be constructed on site; therefore, the standard in Section 17783(a)(1) is not applicable nor relevant and appropriate. For the same reason, Sections 17783.7 and 17783.15 on monitoring of structures and controls, respectively, are not ARARs. Section 17783.13 contains only administrative requirements and is therefore not an ARAR.*

Comment 5. 14 CCR Section 17680, Stockpiling. This is applicable to excavation activities occurring at Site 2.

Response: *Table 1 has been revised to include 14 CCR 17680 as an ARAR because cover material is likely to be stockpiled during the construction of the Site 1 cap.*

Comment 6. 14 CCR Section 17709, Contact with Water. This is applicable to management of wastes during excavation, hauling and placing activities at both Site 1 and Site 2.

Response: *Table 1 has been revised to include 14 CCR 17709 as an ARAR.*

Comment 7. 14 CCR Section 17796(b), Postclosure Land Use. This is applicable to ensure that any postclosure construction improvements at Site 1 be submitted for review and comment concerning possible construction problems and hazards to health and safety. This requirement needs to be tied to any land transfer conducted involving Site 1.

Response: *The Navy does not agreed that 14 CCR Section 17796(b) is an ARAR. This provision provides for review and comment by the local enforcement agency and IWMB on construction improvements. It is an administrative, not a substantive, requirement and therefore is not an ARAR.*

DFG COMMENTS

California Department of Fish and Game (DFG) comments are contained on the attached table. Comments have been numbered and point-by-point responses are presented below.

Comment 1. Wildlife species and habitats, Section 1600.

Response: *As DFG notes in its comments, this provision is a general statement of policy that does not impose any substantive requirements and therefore is not an ARAR. Moreover, it is not a to-be-considered requirement (TBC). TBCs are defined in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Section 300.400(g)(3) as "advisories, criteria, or guidance . . . that may be useful in developing CERCLA remedies." EPA's Compliance with Other Laws Manual (1988)*

further explains that TBCs are "non-promulgated advisories or guidance." The cited Fish and Game Code section does not meet the definition of a TBC.

Comment 2. Streambed, Section 1601.

Response: *This section is not an ARAR for OU1. This action will not affect the beds, channel, or bank of the Napa River or any other streambed.*

Comment 3. Streambed, Section 1603.

Response: *This section is not an ARAR because the remedial action at OU1 will not affect any streambed.*

Comment 4. Aquatic and wildlife species and habitat, Section 2014.

Response: *As DFG notes, this section simply allows DFG to recover civil damages; it does not contain any substantive requirements for conducting the remedial action at OU1 and therefore is not an ARAR. As explained in EPA's guidance, Overview of ARARs (December 1989), requirements related to the approval of or consultation with administrative bodies, documentation, permit issuances, reporting, record keeping, and enforcement are considered administrative requirements and, therefore, not ARARs.*

Comment 5. Endangered species, Section 2080.

Response: *Table 1 has been modified to include Section 2080 as an ARAR because the salt marsh harvest mouse, a federal and state listed endangered species, may be present at Site 1.*

Comment 6. Rare native plants, Sections 2080 and 1900-1913.

Response: *There are no endangered or rare plants at OU1. Therefore, these requirements are not ARARs.*

Comment 7. Endangered species, Sections 2090-2096.

Response: *These provisions set forth requirements for state agencies to consult with DFG. These sections do not impose substantive requirements and therefore are not ARARs. Furthermore, these requirements do not meet the definition of a TBC.*

Comment 8. Wildlife species, Section 3025.

Response: *Section 3005(a) prohibits taking of birds and mammals by several means, including poisonous substances. This remedial action will not involve any taking and therefore is not an ARAR.*

Comment 9. Aquatic habitat and species, Section 5650.

Response: *As DFG explains in its comments, Section 5650 prohibits the deposition of substances in waters of the state that would have a deleterious effect on species. This remedial action will not result in such an event and, therefore, is not an ARAR.*

Comment 10. Wetlands Policy.

Response: *As the DFG recognizes, this policy is not promulgated and therefore is not an ARAR.*

MOFFETT FEDERAL AIRFIELD OPERABLE UNIT 1

CALIFORNIA DEPARTMENT OF FISH AND GAME
LOCATION SPECIFIC ARARs AND TBCs

	LOCATION	STANDARD	SPECIFIC CITATION	ARAR/TBC EXPLANATION
1	Wildlife species/habitats	Action must be taken for the protection and conservation of fish and wildlife resources.	Fish and Game Code Section 1600	This code section declares the protection and conservation of fish and wildlife to be an important public interest. This section is a general statement of policy that does not impose a substantive requirement. This section should be included as a TBC.
2	Streambed	The Department must propose reasonable modification to public construction projects that would alter the bed, channel or bank of any river, stream or lake and may substantially adversely affect an existing fish or wildlife resource.	Fish and Game Code Section 1601	This section requires notification to and action by the Department. It also imposes a substantive requirement to the extent it requires streambed alteration to not substantially adversely affect an existing fish or wildlife resource. The section is relevant to the extent the operations impact the beds, channel or bank of Napa River. Section 1601 complements the operation of federal ARAR 40 CFR section 231.1, which authorizes the USEPA Administrator to prohibit activity whenever he determines that the discharge of dredge or fill material may have an "unacceptable adverse affect" on fish and wildlife. Section 1601 also complements the operation of federal ARAR 16 USC section 662, which requires the determination of possible damage to wildlife resources and the means and measures that should be adopted to prevent the loss of or damage to such resources caused by proposed streambed alterations. This section should be included as an ARAR.
3	Streambed	Any streambed may not be altered without first notifying the Department.	Fish and Game Code Section 1603	This section requires notification to and action by the Department. Section 1603 also imposes a substantive requirement to the extent it requires streambed alteration to not substantially adversely affect an existing fish or wildlife resource. This section should be included as an ARAR.

MOFFETT FEDERAL AIRFIELD OPERABLE UNIT 1

CALIFORNIA DEPARTMENT OF FISH AND GAME
LOCATION SPECIFIC ARARs AND TBCs

	LOCATION	STANDARD	SPECIFIC CITATION	ARAR/TBC EXPLANATION
4	Aquatic and Wildlife species/habitat	Action may be taken to collect damages for the taking of birds, mammals, fishes, reptiles or amphibians.	Fish and Game Code Section 2014	This code section declares that it is policy of the state to conserve its natural resources. It allows the state to recover damages in a civil action against any person or local agency which unlawfully or negligently takes or destroys any bird, mammal, fish, reptile or amphibian protected by the laws of the state. This section should be included as an ARAR.
5	Endangered Species	Action must be taken to conserve endangered species. There can be no releases and/or actions that would have a deleterious effect on species or habitat.	Fish and Game Code Section 2080	This section prohibits the taking, importation or sale of any species, or any part thereof, of an endangered species or threatened species. This section should be included as an ARAR.
6	Rare native plants	Actions must be taken to conserve native plants, there can be no releases and/or actions that would have a deleterious effect on species or habitat.	Fish and Game Code Sections 2080 and 1900 *et seq.*	These code sections make provisions concerning native plant protection, including: criteria for determining endangered plant species; designation of endangered plants by the Fish and Game Commission; research by the Department; takings by the Department for scientific propagation purposes; other prohibitions on takings; exercise of enforcement authority; arrest and confiscation; carrying out of plant conservation programs by other state departments and agencies; an unauthorized public agency regulations pertaining to agriculture. Sections 1900, 1901, 1904, 1905, 1906, 1907, 1909, 1910, 1911, 1912, and 1913 are procedural and administrative in nature and do not impose any substantive requirements. Section 1908 imposes a substantive requirements for forbidding any "person" to take rare or endangered native plants. If rare or endangered plants are present then sections 2080 and 1908 should be included as ARARs, and the other sections are TBCs.

MOFFETT FEDERAL AIRFIELD OPERABLE UNIT 1

CALIFORNIA DEPARTMENT OF FISH AND GAME
LOCATION SPECIFIC ARARs AND TBCs

	LOCATION	STANDARD	SPECIFIC CITATION	ARAR/TBC EXPLANATION
7	Endangered Species	Action must be taken to conserve endangered species. There can be no releases and/or actions that would have a deleterious effect on species or habitat.	Fish and Game Code Sections 2090-2096.	These code sections comprise Article 4 of Chapter 1.5 of the California Endangered Species Act. These sections make provisions concerning Department coordination and consultation with state and federal agencies and with project applicants. These sections do not impose substantive requirements. These sections should be included as TBCs.
8	Wildlife Species	Action must be taken to prohibit the taking of birds and mammals, including taking by poison.	Fish and Game Code Section 3025	This code section prohibits the taking of birds and mammals, including taking by poison. "Taking" is defined by Fish and Game Code Section 86 to include killing. "Poison" is not defined in the code but contaminants of concern (heavy metal, herbicides and pesticides) are all poisons by definition. Federal law recognizes that poison may effect an incidental taking. (Defenders of Wildlife v. Administrator, Environmental Protection Agency (1989) 882 F.2d 1295.) This code section imposes a substantive, promulgated environmental protection requirement. Bird and mammal fatalities are not impossible under the circumstances at these sites, particularly if stockpiling results in increased concentrations of contaminants. This section should be included as an ARAR.

MOFFETT FEDERAL AIRFIELD OPERABLE UNIT 1

CALIFORNIA DEPARTMENT OF FISH AND GAME
LOCATION SPECIFIC ARARs AND TBCs

	LOCATION	STANDARD	SPECIFIC CITATION	ARAR/TBC EXPLANATION
9	Aquatic habitat/species	Action must be taken if toxic materials are placed where they can enter waters of the State. There can be no releases that would have deleterious effect on species or habitat.	Fish and Game Code Sections 5650 (a), (b) and (f)	These code sections prohibit the deposition into state waters of, *inter alia,* petroleum products [(Section 5650 (a)], factory refuse [Section 5650 (b)] and any substance deleterious to fish, plants or birds [Section 5650 (f)]. These are substantive promulgated environmental protection requirements. These requirements impose strict criminal liability on violators. [People v. Chevron Chemical Company (1983) 143 Cal. App. 3d 50]. This imposition of strict criminal liability imposes a standard that is more stringent than federal law. The extent to which each subdivision of Section 5650 is relevant and appropriate depends on site specific conditions or details. There is also a scientific/technical reason for inclusion of Section 5650 as a potential location specific ARAR. State and federal water quality control standards are generally developed, utilizing data information, and guidance from numerous sources. Federal water quality criteria may allow higher concentrations of chemicals for limited time periods, which can result in conditions which are deleterious to state fish, plants, or birds.
10	Wetlands	Actions must be taken to assure that there is "no net loss" of wetlands acreage or habitat value. Action must be taken to preserve, protect restore and enhance California's wetland acreage and habitat values.	Fish and Game Commission Wetlands Policy (adopted 1987) included in Fish and Game Code Addenda	The policy seeks to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it opposes any development or conversion of wetland which would result in a reduction of wetland acreage or habitat value. It adopts the USFWS definition of a wetland which utilizes hydric soils, saturation or inundation, and vegetable criteria, and requires the presence of at least one of these criteria (rather than all three) in order to classify an area as a wetland. This policy is not a regulatory program and should be included as a TBC.