



Cal/EPA
Department of
Toxic Substances
Control

700 Heinz Avenue
Suite 200
Berkeley, CA
94710-2737

July 7, 1997

Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

Commander
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Mr. Stephen Chao, Project Manager
900 Commodore Drive, Bldg. 210
San Bruno, California 94066-2402

Dear Mr. Chao:

**FINAL OPERABLE UNIT 1 RECORD OF DECISION, MOFFETT
FEDERAL AIRFIELD, JUNE 9, 1997**

The Department of Toxic Substances Control (DTSC), the San Francisco Regional Water Quality Control (RWQCB), and the California Integrated Waste Management Board (IWMB) have reviewed the redline/strikeout version of the subject document and the Navy's responses to regulatory agency comments. We appreciate the Navy's efforts in expanding the ARARs section of the revised draft final document. A significant portion of our comments have been satisfactorily responded to at this time. However, as described in the following comments, there are several outstanding issues need to be addressed before finalizing the document. If you have any questions regarding these comments, please call me at 510-540-3830 to ensure a coordinated approach for all regulatory comments.

Sincerely,

C. Joseph Chou
Remedial Project Manager
Base Closure Unit
Office of Military Facilities

Enclosures

cc: Mr. Michael Rochette
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612



Mr. Stephen Chao
July 7, 1997
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Mr. Michael D. Gill
U.S. Environmental Protection Agency
Region IX, Mail Stop H-9-2
75 Hawthorne St.
San Francisco, California 94105

Mr. Glenn Young
California Integrated Waste Management Board
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Sacramento, California 95826

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California Department of Fish and Game
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Ms. Sandy Olliges
Assistant Chief
Safety, Health and Environmental Services
National Aeronautics and Space Administration
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Moffett Field, CA 94035-1000

Mr. Peter Strauss
MHB Technical Associates
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San Jose CA 95125

Mr. James G. McClure, Ph.D.
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Mr. Stephen Chao
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GENERAL COMMENTS

1. One of the agreements made in the June 19, 1997 meeting was that Title 23, California Code of Regulations (CCR), Chapter 15, Article 5 will be included an ARAR for groundwater monitoring at Sites 1 and 2. Pursuant to Title 23 CCR, Chapter 15, Article 5, Sections 2550.4, the Navy shall derive and propose concentration limits for each constituent of concern. The concentration limit may be lower than but shall not exceed federal Ambient Water Quality Criteria (AWQC) or RWQCB Basin Plan Water Quality Objectives. This text was developed with the concurrence of RWQCB and USEPA.

SPECIFIC COMMENTS

1. Page 2, 1st paragraph; Section 1.0

As it was mentioned in our previous comment, the designating of the Site 1 landfill as a CAMU should be in accordance with the Section 66264.552, not only Section 66264.552(c).

2. Page 5; Signatory block

Please correct the DTSC signatory block to read:

Anthony J. Landis, P.E.
Chief
Northern California Operations
Office of Military Facilities
California Department of Toxic Substances Control

3. Page 70, 2nd Paragraph; Section 2.11.2.3

The groundwater monitoring requirements in Title 23 CCR, Chapter 15, Article 5 should be included as ARARs for both Site 1 and Site 2. After closure of a waste management unit, a minimum of three consecutive years of groundwater monitoring is required by Title 23 CCR, Section 2550.0(d).

Response to Comments

4. Page 15, Comment 5

The 22 CCR, Chapter 11, Articles 4 and 5 are applicable to the containerized mobile or liquid hazardous wastes that may be encountered during the OUI excavation and consolidation activities. Those hazardous wastes should be shipped to off-site permitted facility for proper treatment and/or disposal and are subject to the Land Disposal Restrictions (LDR), 22 CCR, Chapter 18, Sections 66268.1 to 66268.9, 66268.30, 66268.32, and 66268.40 to 66268.50.

San Francisco Bay Regional Water Quality Control Board**DoD/DoE Section**

Prepared By: Michael Bessette Rochette
 Date: June 27, 1997
 Subject: Final OU1 Record of Decision dated June 9, 1997

Phone No.: (510) 286-1028
 File No.: 2189.8009 (MBR)

The following comments are based on a review of the Final OU1 ROD and the Navy's response to comments and agreement on June 19, 1997, telephone conference call of the following issues:

- the Navy and NASA agree to develop institutional controls ensuring the continued operation of Building 191 within one year of signing the ROD;
- the applicability NWP 38 and Sections 404/401 as ARARs and of wetland mitigation as part of the 401 Water Quality Certification and that wetland mitigation requirements will be determined as part of the Station Wide ROD;
- the applicability of BCDC regulations as ARARs;
- the applicability of appropriate sections of 23 CCR, Chapter 15 Articles 2 and 5 at Site 2 as ARARs.

These comment and those provided by Frances McChesney remain outstanding.

General Comments:

- 1) Revise Section 1, Description of the Selected Remedy components 1, 2, 3, 4, and 5, to state "in accordance with pertinent provisions of 23 CCR, Chapter 15" It is acceptable if the Navy revises the text without the specifying each applicable section.
- 2) The Navy's response to RWQCB's general comment 8 is unclear. RWQCB proposes that the Navy delete the sentence "Post excavation...been removed." and revise the paragraph with "The Navy plans to remove all waste materials to the fullest extent technically and economically feasible. Prior to backfilling the excavation, the Navy will collect and analyze confirmatory horizontal and vertical soil samples after all waste identified by visual screening has been removed. The Navy will consult with the regulatory agencies to select the number and locations of these confirmatory samples. The Navy will consult with the agencies to determine the final limits of the excavation based on these sample results.

If the Navy elects not to confirm the complete removal of waste materials prior to backfilling, additional post-excavation samples will be required. This may delay closure because long-term groundwater monitoring, significantly greater than three years, may be required.

- 3) Revise discussions on groundwater monitoring at Sites 1 and 2 to state that "Pursuant to Title 23 CCR, Chapter 15, Article 5, Section 2550.1, the Navy shall prepare and institute a detection monitoring program to determine if statistically significant evidence of a release from the waste management unit exists. The Navy shall also prepare an evaluation monitoring program to assess the nature and extent of a release and to design a corrective action program. If corrective action is required, the Navy shall amend the ROD or prepare an explanation of significant differences (ESD), as appropriate, for the collection, treatment, and discharge of leachate. As part of the detection monitoring program, the Navy will derive and propose concentration limits for each constituent of concern pursuant to Title 23 CCR, Chapter 15, Article 5, Sections 2550.4. Verified detections above these concentration limits trigger the evaluation monitoring program which in turn could trigger a corrective action program to remediate releases and achieve compliance. (This could be a lengthy process.)
- 4) Since the leachate collection trench is designed to quickly intercept potential leachate migration before it reaches surface water, the Navy will activate the trench during the detection monitoring program upon any verified detection above:
 - RWQCB Basin Plan Water Quality Objectives or;
 - the federal Ambient Water Quality Criteria.

San Francisco Bay Regional Water Quality Control Board**DoD/DoE Section**Prepared By: **Michael Bessette Rochette**Phone No.: **(510) 286-1028**Date: **June 27, 1997**File No.: **2189.8009 (MBR)**Subject: **Final OUI Record of Decision dated June 9, 1997**

- 5) If the Navy is considering proposing concentration limits greater than background concentration, pursuant to Title 23 CCR, Chapter 15, Article 5, Section 2550.4(a)(3), the San Francisco Bay Basin, Water Quality Control Plan (Basin Plan), June 1995 water quality objectives and beneficial use designations shall be included as ARARs. The Basin Plan's beneficial use designations are necessary for determining the current and potential future uses of groundwater and surface water pursuant to Chapter 15, Article 5, Sections 2550.4(d)(1)(E) and 2550.4(d)(2)(F), and water quality objectives are necessary for the determination of the existing quality of groundwater and surface water pursuant to Sections 2550.4(d)(1)(F) and 2550.4(d)(2)(G);
- 6) Include the following additions to the ARAR Table:
- RWQCB San Francisco Bay Basin Plan, Water Quality Objectives and Beneficial Uses Designations for setting water quality protection standards, and implementation plan for wetlands;
 - Water Code Section 13142.5 and the Governor's Executive Order W-59-93 as a TBC;
 - 23 CCR, Chapter 15, Article 5, Section 2550.9
 - 23 CCR, Chapter 15, Article 5, Section 2550.7(c)(2) for general monitoring requirements;
 - 23 CCR 2580(b) and 2581(c)(3) for postclosure requirements;
 - 23 CCR, Section 2547(a) for seismic design.

Specific Comments:

- 1) **Page 2, Sec 1.0, Items 1, 2, 7 :** See General Comment 1.
- 2) **Page 2, Sec 1.0, Item 3:** See General Comment 3.
- 3) **Page 2, Sec 1.0, Item 4:** See General Comment 4.
- 4) **Page 3, Sec 1.0, Para. 2:** See General Comment 4.
- 5) **Page 3, Sec 1.0, Para. 3:** Leave in original form. See General Comment 4.
- 6) **Page 26, Sec 2.6.2, Para. 5:** Leave in original form and include text detailing the agreement between the Navy and agencies that wetland mitigation of Site 1 will be determined as part of the Station-wide ROD.
- 7) **Page 29, Sec. 2.7.1.2.3,:** Revise section to state "...as applicable for Sites 1 and 2." and to be consistent with Comment 3.
- 8) **Page 31, Sec. 2.7.1.2.3, Para. 2:** Revise section to be consistent with Comment 3.
- 9) **Page 36, Figure 6:** Revise the figure to reflect the final cap design.
- 10) **Page 36, Sec. 2.7.2, Para. 2:** See General Comment 2.
- 11) **Page 37, Sec. 2.7.2, Para. 1:** Revise text to reflect agreement on Chapter 15, Article 2 as an ARAR for Site 2.
- 12) **Page 37, Sec. 2.7.2, Para. 2:** Revise text to state that groundwater must not contain substances exceeding federal AWDC for freshwater aquatic life or RWQCB water quality objectives for surface waters with salinities less than 5 ppt. Also waters generated during dewatering activities at Site 2 will be used for dust control only at Site 1 within a bermed area 10 feet interior of the foot print of the landfill cap and that Occupational health and safety requirements must also be met.
- 13) **Page 52, Figure 7:** Revise text to reflect final cap design.
- 14) **Page 54, Sec. 2.10, Para. 3:** Revise text to reflect General Comment 3.

San Francisco Bay Regional Water Quality Control Board**DoD/DoE Section**

Prepared By: Michael Bessette Rochette

Phone No.: (510) 286-1028

Date: June 27, 1997

File No.: 2189.8009 (MBR)

Subject: **Final OUI Record of Decision dated June 9, 1997**

- 15) **Page 58, Sec. 2.11.2.1, Para. 2:** Revise Section to reflect General Comment 3.
- 16) **Page 58, Sec. 2.11.2.1, Para. 3:** Revise Section to reflect General Comments 3 and 4.
- 17) **Page 67, Sec. 2.11.2.2, Para. 5:** Revise to reflect agreement between the Navy and agencies that wetland mitigation of Site 1 will be determined as part of the Station-wide ROD.
- 18) **Page 68, Sec. 2.11.2.3:** Revise section to reflect the applicability of Chapter 15 Article 2.
- 19) **Page 69, Sec. 2.11.2., Para. 1:** Provide information detailing the statement that soils currently stockpiled at the bioremediation pad will be used as fill. (Additionally, if material is to be used from the light rail project, it should be identified.)
- 20) **Page 70, Sec. 2.11.2.3, Para. 4:** See Comment 3.
- 21) **Page 72, Sec. 2.11.2.4, Para. 1:** Provide information detailing the statement that soils currently stockpiled at the bioremediation pad will be used as fill. (Additionally, if material is to be used from the light rail project, it should be identified.)
- 22) **Page 76, Figure 8:** Identify delineated wetlands.



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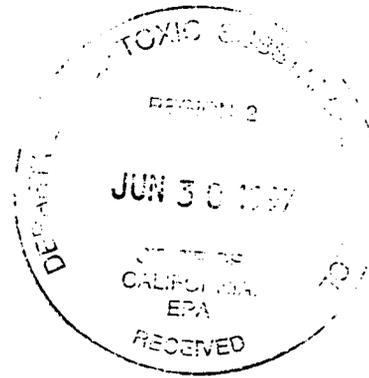
Integrated
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Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection



June 25, 1997

Mr. Joseph Chou
Remedial Project Manager
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Subject: Moffett Federal Airfield California, Final Operable Unit 1,
Record of Decision (ROD)

Dear Mr. Chou:

The California Integrated Waste Management Board (IWMB) Closure & Remediation Branch received the Final ROD on June 12, 1997. IWMB staff appreciate the opportunity to provide you with input during the closure process of the Moffett Field landfills (Sites 1 and 2).

IWMB staff have concerns with the Table 1 ARARs presented in the ROD.

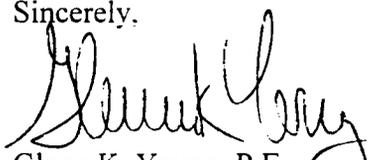
- In order to ensure that standard design and construction practices are adhered to for implementation of environmental containment and control systems (final cover, drainage, erosion, slope protection, landfill gas, groundwater, etc.), specific qualifications for individuals responsible for design and construction aspects of closure are required by state regulations (both Title 14 and Title 23). These are statutory requirements under state law and therefore are Applicable or Relevant and Appropriate (ARARs) requirements per IWMB regulations regarding landfill closure. IWMB therefore advise that Sections 17773(a), 17774(b), 17777(c), 17778(b) and 17779(b) remain as ARARs in the final Record of Decision. The design of the final cover system (17773(a)) and preparation of the construction quality assurance plan for the final cover (17774(b)) are to be performed by a registered civil engineer or certified engineering geologist. Any supporting analysis for the final cover design or drainage control systems, i.e. slope and foundation stability analysis (17777(c)), or drainage design analysis (17778(b)), are to be prepared by a registered civil engineer. Any slope protection or erosion control procedures to be implemented for final closure are to be prepared by a registered civil engineer or certified engineering geologist. All operating and closing landfills in California are subject to the same closure standards.

2. IWMB advises that Section 17783(a)(1) (control trigger of 1.25% methane gas in structures) and 17783.7 (Structure Monitoring) be included in the Final ROD as ARARs, even though they are not applicable to current site conditions. If structures are constructed within 1000 feet of Site 1 during the postclosure period, Section 17783(a)(1) is the applicable state regulation for establishing the requirement for landfill gas control at Site 1 during the postclosure period. The gas control requirement (Section 17783.15) is applicable should gas monitoring at the property boundary or perimeter wells show levels of methane in excess of 5%. The Navy will implement any controls, i.e. active or passive gas control, necessary to prevent gas from migrating away from the landfill. The gas control requirement (Section 17783.15) addresses public health and safety issues associated with subsurface migration of landfill gas and is independent of Clean Air Rules or NSPS requirements for solid waste landfills.

3. IWMB staff advise that Section 17796(b), Postclosure Land-Use remain as an ARAR in addition to Federal ARARs regarding land-use restrictions, i.e. Section 120(h)(3) of CERCLA (EPA comment 19). IWMB staff have experience with postclosure land-use applications throughout California and can provide regulatory direction for engineering and environmental issues associated with landfill land-uses. Several residential and commercial developments of landfills have had significant negative impacts on public health & safety and property values, e.g. South Hampton Development in Benecia, 14th Avenue Landfill in Sacramento, Duck Pond landfill in San Diego, etc. Other commercial developments such as Modesto Airport, Shoreline Ampitheater in Mountainview, and the Sheraton Hotel in the City of Industry have had problems with gas migration and differential settlement. This issue may be resolved by including IWMB and the LEA as agencies to be notified in any land-transfer actions or land-use change actions for Site 1.

If you have any questions or concerns regarding these comments please call me at (916) 255-3830.

Sincerely,



Glenn K. Young, P.E.
Closure & Remediation South Section
Permitting & Enforcement Division