

**AMENDMENT OF THE FEDERAL FACILITY AGREEMENT
NAS MOFFETT FIELD
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SFUND RECORDS CTR
SDMS # 73855

In accordance with Section 24 of the Naval Air Station Moffett Field ("NASMF") August 1990 Federal Facility Agreement ("FFA") between the U.S. Environmental Protection Agency ("EPA"), the U.S. Department of the Navy ("Navy"), the California Department of Health Services (now and hereinafter referred to as the Department of Toxic Substances Control or "DTSC"), and the California Regional Water Quality Control Board, San Francisco Bay Region ("RWQCB"), the Parties agree to amend the FFA as follows:

1. Remediation of Navy Sources within the MEW ROD Regional Study Area

On page 5, add the following paragraph to Section 1 (Definitions):

1.23 "MEW ROD" shall mean the Record of Decision signed by the EPA Regional Administrator of Region IX on June 9, 1989, which describes the remedial action to be conducted at the MEW Site, as clarified by the Explanation of Significant Differences signed by the EPA Regional Administrator on September 21, 1990.

On page 10, add the following paragraph to Section 5 (Purpose):

5.2.10 remediate the source control removal areas of Attachments 4 and 5 in accordance with the MEW ROD. The purpose of such remedial activities is to eliminate any impediment to the effective implementation of the MEW Regional Groundwater Remediation Program North of Highway 101 and to maintain a consistent and coordinated approach to remediation within the MEW ROD Regional Study Area.

On page 17, add the following paragraphs to Section 7 (Scope of the Agreement):

7.8 Remediation of Navy Sources within the MEW ROD Regional Study Area.

7.8.1 To eliminate any impediment to the effective implementation of the MEW Regional Groundwater Remediation Program North of Highway 101 and to maintain a consistent and coordinated approach to remediation within the MEW ROD Regional Study Area, the Navy agrees to adopt the MEW ROD and to remediate the source control removal areas of Attachments 4 and 5 in accordance with the MEW ROD for contamination attributable to Navy sources.

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7.8.2 The Navy shall implement such remedial actions in accordance with approved time schedules and shall conduct operation and maintenance to maintain the effectiveness of such response actions at the Site.

7.8.3 To address source areas of contamination located within the MEW ROD Regional Study Area and identified following the effective date of Subsection 7.8 of this Agreement, the Navy agrees to adopt the MEW ROD and to remediate, in accordance with the MEW ROD, all such source control removal areas that the Parties agree are the responsibility of the Navy.

7.8.4 Any dispute among the Parties as to the responsibility of the Navy to remediate a source area of contamination located within the MEW ROD Regional Study Area shall be resolved pursuant to Section 10 of this Agreement (Resolution of Disputes).

2. Petroleum Cleanup

On page 6, add the following paragraphs to Section 2 (Jurisdiction):

2.6 EPA, Region IX, enters into those portions of this Agreement that relate to corrective action(s) for petroleum cleanup pursuant to Sections 6001, 7003, and 9007 of RCRA.

2.7 The Navy enters into those portions of this Agreement that relate to corrective action(s) for petroleum cleanup pursuant to Sections 6001, 7003, and 9007 of RCRA.

2.8 DTSC and RWQCB enter into those portions of this Agreement that relate to corrective action(s) for petroleum cleanup pursuant to Sections 6001 and 9007 of RCRA; California Health and Safety Code Division 20, Chapters 6.5, 6.7, 6.75, and 6.8; and California Water Code Division 7.

On page 10, add the following paragraph to Section 5 (Purpose):

5.2.11 develop, implement, and report upon the corrective action(s) for petroleum cleanup at the Site.

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On page 17, add the following paragraphs to Section 7 (Scope of the Agreement):

7.9 Corrective Actions for Petroleum Cleanup.

7.9.1 The Navy agrees it shall develop, implement, and report upon the corrective action(s) for petroleum cleanup at the Site.

7.9.2 The Navy shall submit to the other Parties for their review and comment and in accordance with approved time schedules a site characterization plan, a corrective action plan, and a closure/post-closure plan to address the corrective action(s) for petroleum cleanup at the Site.

7.9.3 Any petroleum cleanup conducted at the Site shall be conducted in a manner consistent with Sections 6001, 7003, and 9007 of RCRA; 40 Code of Federal Regulations Part 280; California Health and Safety Code Division 20, Chapters 6.5, 6.7, 6.75, and 6.8; California Water Code Division 7; California Code of Regulations Title 23, Division 3, Chapter 16; and Water Quality Control Plans, as applicable.

On page 21, add the following lines to Subsection 9.3 (Primary Documents):

9.3.1 ***

15. ***

16. Petroleum Cleanup Site Characterization Plan(s)

17. Petroleum Cleanup Corrective Action Plan(s)

18. Petroleum Cleanup Closure/Post-Closure Plan(s)

3. Preliminary Assessment/Site Inspection of Navy Sources

On page 17, add the following paragraph to Section 7 (Scope of the Agreement):

7.4.10 The Navy shall perform a preliminary assessment/site inspection of all the potential source areas of contamination at the Site in accordance with an approved time schedule.

On page 21, add the following line to Subsection 9.3 (Primary Documents):

9.3.1 ***

19. Preliminary Assessment/Site Inspection of Potential Sources

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4. Information Sharing with Entities Performing Cleanup Activities at the Site Who Are Not Parties to the FFA.

On page 51, add the following paragraph to Section 29 (Public Participation):

29.5 Pursuant to a request by Intel Corporation's and Raytheon Company's Project Coordinator (as designated in the MEW Consent Decree between EPA, Intel Corporation, and Raytheon Company and entered by the U.S. District Court for the Northern District of California on April 10, 1992), the Navy shall promptly submit to such Project Coordinator any draft or final report for any deliverable document identified in this Agreement or schedule of this Agreement. Submission of such documents to entities that are not parties to this Agreement is to facilitate the coordination of remediation within the MEW ROD Regional Study Area only, and does not provide any entity not a party to this Agreement any substantive or procedural rights under this Agreement.

5. Base Closure

On page 50, add the following paragraphs to Section 28 (Transfer of Real Property):

28.4 Closure of the Federal Facility will not affect the Navy's obligation to comply with the terms of this Agreement and to specifically ensure the following:

28.4.1 Continuing rights of access for EPA, DTSC, and RWQCB in accordance with the terms and conditions of Section 19 of this Agreement (Access).

28.4.2 Availability of a Project Manager to fulfill the terms and conditions of this Agreement.

28.4.3 Designation of alternate DRC members as appropriate for the purposes of implementing Section 10 of this Agreement (Resolution of Disputes).

28.4.4 Adequate resolution of any other problems identified by the Project Managers regarding the effect of base closure on the implementation of this Agreement.

28.5 Base closure or any planned or existing reuse activity will not constitute a Force Majeure under Section 35 of this Agreement (Force Majeure), nor will it constitute good cause for extensions under Section 27 of this Agreement (Extensions), unless mutually agreed by the Parties.

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28.6 The Navy shall ensure that any base closure or reuse activity shall not impede or interfere with Site cleanup activities, including operation and maintenance of the selected remed(ies), required by this Agreement.

6. Funding

On pages 53 and 54, revise paragraph 32.5 of Section 32 (Funding) as follows:

32.5 Funds available in the "Department of Defense Base Closure Account 1990" established by Section 2906 of the Defense Base Closure and Realignment Act of 1990, Pub.L. 101-510, § 2901 et seq. (Nov. 5, 1990) ("1990 Base Closure Act") and allocated by DOD to the Navy (as well as any other funds appropriated by Congress for activities required by this Agreement and allocated by DOD to the Navy, irrespective of the name of the account) will be the source of funds for activities required by this Agreement. However, should these funds be inadequate in any year to meet the total Navy CERCLA implementation requirements at bases that are to be closed under the 1990 Base Closure Act, DOD shall employ and the Navy shall follow a standardized DOD prioritization process that allocates the available funds in a manner that maximizes the protection of human health or the environment.

7. Schedule

Attachment 3 (Timetables and Deadlines) of the FFA is modified in accordance with the attached schedule.

Effective Date of this Amendment


The above amendment to the FFA becomes effective on the date when the EPA Regional Administrator signs the amendment.

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Each undersigned representative of a Party certifies that he or she is fully authorized to enter into the terms and conditions of the above amendment and to legally bind such Party to the amendment.

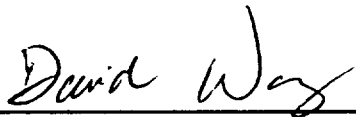
IT IS SO AGREED:

11/17/93
Date




Captain Terry M. Dillon
Commander of Western Division Naval
Facilities Engineering Command
United States Department of
the Navy

11/24/1993
Date



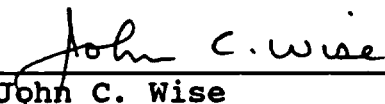
David Wang
Base Closure Branch Chief
California Department of Toxic
Substances Control

12/6/93
Date



Steven R. Ritchie
Executive Officer
California Regional Water Quality
Control Board
San Francisco Bay Region

12.17.93
Date



John C. Wise
Acting Regional Administrator
United States Environmental
Protection Agency, Region IX

**MODIFICATIONS TO ATTACHMENT 3
OF THE FEDERAL FACILITIES AGREEMENT SCHEDULE
(November 17, 1993)**

In approving the following schedules, EPA, DTSC and RWQCB understand that the Navy shall request an extension of the deadlines herein marked with an * in order to remain in compliance with the requirements of Section 334(a) of Public Law 102-190.

OPERABLE UNIT 1 (OU-1): Sites 1 and 2 Soils

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET ⁽¹⁾
Draft OU-1 Remedial Investigation (RI) Report	Submitted November 2, 1992	
Draft Initial Screening of Remedial Technologies: OU-1	Submitted November 2, 1992	
Draft Final OU-1 RI Report	Per Consultation Section	Submitted March 5, 1993
Final OU-1 RI Report	Per Consultation Section	Submitted June 7, 1993
Draft Feasibility Study Report (FS): OU-1	Submitted April 27, 1993	
Draft Proposed Plan: OU-1	Submitted April 27, 1993	
Draft Final FS Report	Per Consultation Section	February 1, 1994
Draft Final Proposed Plan: OU-1	Per Consultation Section	February 1, 1994
Final FS Report: OU-1	Per Consultation Section	March 1, 1994
Final Proposed Plan: OU-1	Per Consultation Section	March 1, 1994
Draft Record of Decision (ROD): OU-1	May 16, 1994 ⁽²⁾	
Draft RD/RA Work Plan: OU-1	May 16, 1994 ⁽²⁾	
Draft Final ROD: OU-1	Per Consultation Section	August 19, 1994
Draft Final RD/RA Work Plan: OU-1	Per Consultation Section	August 19, 1994
Final ROD: OU-1	Per Consultation Section	September 19, 1994
Final RD/RA Work Plan: OU-1	Per Consultation Section	September 19, 1994

OPERABLE UNIT 2 (OU-2): Sites 3,4,6,7,8,9,10,11,13,14,16,17,18, and 19 (Soils)

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET ¹
OPERABLE UNIT 2 (OU-2) EAST: Sites 3,4,6,7,10³¹,11,13,19⁴¹ (Soils)		
Draft Final Proposed Plan: OU-2	Per Consultation Section	March 1, 1994
Final Proposed Plan: OU-2	Per Consultation Section	April 1, 1994
Draft Record of Decision (ROD): OU-2	June 17, 1994 ²³	
Draft RD/RA Work Plan: OU-2	June 17, 1994 ²³	
Draft Final ROD: OU-2	Per Consultation Section	September 12, 1994
Draft Final RD/RA Work Plan: OU-2	Per Consultation Section	September 12, 1994
Final ROD: OU-2	Per Consultation Section	October 14, 1994
Final RD/RA Work Plan: OU-2	Per Consultation Section	October 14, 1994
OPERABLE UNIT 2 (OU-2) WEST: Sites 8,9⁴¹,10³¹,14,16,17,18,19⁴¹ (Soils)		
Draft RD/RA Work Plan: OU-2	Submitted April 9, 1993	
Draft Final RD/RA Work Plan: OU-2	Per Consultation Section	Submitted July 16, 1993
Final RD/RA Work Plan: OU-2	Per Consultation Section	Submitted August 16, 1993

OPERABLE UNIT 5 (OU-5): EASTSIDE AQUIFERS

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET⁽¹⁾
Draft OU-5 Remedial Investigation (RI) Report	Submitted April 1, 1993	
Draft Final OU-5 RI Report	Submitted September 11, 1993	
Final OU-5 RI Report	Per Consultation Section	December 1, 1993
Draft Proposed Plan: OU-5	Submitted October 1, 1993	
Draft Feasibility Study (FS) Report: OU-5	February 18, 1994	
Revised Draft Proposed Plan: OU-5	February 18, 1994	
Draft Final FS Report: OU-5	Per Consultation Section	June 17, 1994
Draft Final Proposed Plan: OU-5	Per Consultation Section	June 17, 1994
Final FS Report: OU-5	Per Consultation Section	July 25, 1994
Final Proposed Plan: OU-5	Per Consultation Section	July 25, 1994
Draft Record of Decision (ROD): OU-5	September 30, 1994 ⁽²⁾	
Draft RD/RA Work Plan: OU-5	September 30, 1994 ⁽²⁾	
Draft Final ROD: OU-5	Per Consultation Section	December 30, 1994
Draft Final RD/RA Work Plan: OU-5	Per Consultation Section	December 30, 1994
Final ROD: OU-5	Per Consultation Section	January 30, 1995
Final RD/RA Work Plan: OU-5	Per Consultation Section	January 30, 1995

OPERABLE UNIT 6 (OU-6): WETLAND AREAS

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET⁽¹⁾
Draft OU-6 Remedial Investigation (RI) Work Plan ⁽⁵⁾	July 1, 1993	
Draft Final OU-6 RI Work Plan	Per Consultation Section	Submitted October 1, 1993
Final OU-6 RI Work Plan	Per Consultation Section	November 19, 1993
Draft OU-6 RI Report	January 14, 1994	
Draft Final OU-6 RI Report	Per Consultation Section	April 14, 1994
Final OU-6 RI Report ⁽⁶⁾	Per Consultation Section	May 15, 1994

SITE-WIDE ECOLOGICAL ASSESSMENT

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET⁽¹⁾
Draft Field Work Plan: OU-6 ⁽⁷⁾	Submitted July 2, 1992	
Draft Final Site-Wide Ecological Assessment (SWEA) Work Plan		Submitted March 1, 1993
Final Phase I SWEA Work Plan		Submitted April 1, 1993
Draft Phase I SWEA Investigation Report	December 20, 1993	
Draft Final Phase I SWEA Investigation Report	Per Consultation Section	March 21, 1994
Final Phase I SWEA Investigation Report	Per Consultation Section	April 20, 1994
Draft Phase II SWEA Work Plan	September 5, 1994	
Draft Final Phase II SWEA Work Plan	Per Consultation Section	December 5, 1994
Final Phase II SWEA Work Plan	Per Consultation Section	January 4, 1995
Draft SWEA Report ⁽⁸⁾	September 25, 1995 ⁽⁹⁾	

STATION-WIDE

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET⁽¹⁾
Draft Station-Wide Quality Assurance Project Plan (QAPjP), Field Sampling Plan (FSP), and Health and Safety Plan (HSP)	Submitted December 2, 1991	
Draft Final Station-Wide QAPjP, FSP, and HSP		Submitted April 2, 1992
Final Station-Wide QAPjP, FSP, and HSP		Submitted May 3, 1992
Draft RI Report: Station-Wide ⁽¹⁰⁾	May 1, 1995	
Draft Final RI Report: Station-Wide	Per Consultation Section	September 1, 1995
Final RI Report: Station-Wide	Per Consultation Section	October 1, 1995
Draft FS Report: Station-Wide	November 1, 1995	
Draft Proposed Plan: Station-Wide	November 1, 1995	
Draft Final FS Report: Station-Wide*	Per Consultation Section	March 1, 1996
Draft Final Proposed Plan: Station-Wide	Per Consultation Section	March 1, 1996
Final FS Report: Station-Wide	Per Consultation Section	April 2, 1996
Final Proposed Plan: Station-Wide	Per Consultation Section	April 2, 1996
Draft Record of Decision (ROD): Station-Wide	June 15, 1996 ⁽²⁾	
Draft RD/RA Work Plan: Station-Wide	June 15, 1996 ⁽²⁾	
Draft Final ROD: Station-Wide	Per Consultation Section	August 15, 1996
Draft Final RD/RA Work Plan: Station-Wide	Per Consultation Section	August 15, 1996
Final RD/RA Work Plan: Station-Wide	Per Consultation Section	September 15, 1996
Final ROD: Station-Wide	Per Consultation Section	September 15, 1996

WEST-SIDE GROUNDWATER UNIT

CHARACTERIZATION REPORT

DOCUMENT AND ACTIVITY	DEADLINE
Final West-Side Groundwater Characterization Report	Submitted March 3, 1993

WEST-SIDE AQUIFER SOURCE REMEDIATION

DOCUMENT AND ACTIVITY	DEADLINE	TARGET⁽¹⁾
Draft Remedial Design/Remedial Action (RD/RA) Work Plan	May 28, 1993	
Draft Final RD/RA Work Plan	Per Consultation Section	Submitted August 27, 1993
Final RD/RA Work Plan	Per Consultation Section	Submitted October 1, 1993

ADDITIONAL INVESTIGATIONS OF INFERRED SOURCES

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET⁽¹⁾
Draft Field Work Plan (FWP): ⁽¹⁾ Additional Investigations of Inferred Sources		Submitted June 14, 1993 (as Preliminary Assessment/Site Inspection FWP)
Draft Final FWP		Submitted August 6, 1993
Final FWP		Submitted September 23, 1993
Draft Additional Investigations of Inferred Sources Report	November 22, 1993	
Draft Final Additional Investigations of Inferred Sources Report	Per Consultation Section	February 21, 1994
Final Additional Investigations of Inferred Sources Report	Per Consultation Section	March 21, 1994

PETROLEUM CONTAMINATED SOILS: SITES 5,9,12,15 AND 19

DOCUMENTS AND ACTIVITIES	DEADLINE	TARGET⁽¹⁾
Draft Petroleum Cleanup Site Characterization Plan	Submitted July 2, 1993	
Final Petroleum Cleanup Site Characterization Plan		Submitted October 1, 1993
Draft Petroleum Cleanup Corrective Action Plan	Submitted October 1, 1993	
Draft Final Petroleum Cleanup Corrective Action Plan		May 20, 1994 ⁽¹²⁾
Final Petroleum Cleanup Corrective Action Plan		July 1, 1994
Draft Petroleum Cleanup Closure/Post-Closure Report	August 18, 1995 ⁽¹³⁾	
Draft Final Petroleum Cleanup Closure/Post-Closure Report		November 17, 1995
Final Petroleum Cleanup Closure/Post-Closure Report		December 22, 1995

PROVISIONS

- ^[1] While deadlines are enforceable dates, target dates are for the purpose of projecting the overall schedule and to expedite the schedule. Target dates assume a 45 day review and revision period and an automatic extension of 15 days at the regulatory agencies' request for draft primary documents, and a 30 day turn around for draft final primary documents, without engaging in dispute resolution.
- ^[2] Assumes submittal of ROD and RD/RA Work Plan approximately 45 days following end of public comment period.
- ^[3] These sites partially addressed in respective documents for east and west sides of operable unit 2.
- ^[4] These sites may be fully or partially addressed through petroleum corrective action.
- ^[5] The OU-6 RI work plan will describe the conceptual site model, including potential sources, pathways, receptors, and data quality objectives (DQOs). An assessment will be made as to whether data to be collected for the Site-Wide Ecological Assessment will be sufficient for the human health risk assessment. The work plan may recommend no or only limited additional field investigations based on this assessment. If additional field investigations are necessary, the draft OU-6 RI deadline may be revised.
- ^[6] Contingent on results of RI activities and the baseline risk assessment for OU-6, additional activities under OU-6 may include development of an OU-6 feasibility study, proposed plan, record of decision (ROD), and remedial design/remedial action work plans or results, if necessary, will be incorporated into station-wide documents.
- ^[7] The Draft Site-Wide Ecological Assessment Work Plan was submitted under the title: Draft Field Work Plan: OU-6.
- ^[8] The Site-Wide Ecological Assessment Report will be comprehensive and will include data and analyses from both Phase I and Phase II. Results from the Site-Wide Ecological Assessment will also be incorporated into the Station-Wide Remedial Investigation Report.
- ^[9] Submittal of the draft SWEA report assumes approximately an eight month field investigation period (including laboratory analyses and uploading into database) and a six month period to analyze data and write the report.
- ^[10] The Station-Wide RI report will incorporate information on all investigations not included in previous operable unit reports or characterization studies. The RI report will include, but is not limited to, data from investigations at Zook Road, Patrol Road Ditch, the golf course landfill, tank 68, the fuel pier, site 5 (high speed refueling facility), Hangar 1, the NEX service station, portions of the north base area, horizontal conduits, quarterly sampling activities, and site-wide ecological assessments. In addition the Station-Wide RI report will include a cumulative risk analysis. This schedule is subject to revision and renegotiation

based on revisions to the submittal of the Site-Wide Ecological Assessment report. If all site-wide ecological data are not available for the Draft Station-Wide Remedial Investigation Report, the data will be included in the Draft Final Station-Wide Remedial Investigation Report.

- ^[11] The Additional Investigation of Inferred Sources Work Plan is considered a "secondary" document in accordance with definitions in Section 9 of the FFA, Consultation with EPA, DHS (DTSC), and RWQCB.
- ^[12] The Draft Final Petroleum Cleanup Corrective Action Plan is scheduled 105 days after completion of additional field investigations. This assumes field investigations begin January 24, 1994.
- ^[13] The Draft Petroleum Cleanup Closure/Post-Closure Report will be submitted following construction field work and remediation. Interim submittals not listed as FFA deliverables include: 35 Percent, 100 Percent, and Final Design Reports; and Draft and Final Confirmation Field Work Plans. The schedule also incorporates time for contracting and corrective action field work.

Transmittal Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

December 17, 1993

Mr. Stephen Chao
Naval Facilities Engineering Command
Western Division
900 Commodore Way, Bldg. 101
San Bruno, CA. 94066

Re: NASMF Federal Facilities Agreement (FFA) Amendment of December 17, 1993

Dear Mr. Chao,

The U.S. Environmental Protection Agency (EPA) today, December 17, 1993, signed the Moffett Field FFA amendment. It is now effective, as all parties to the FFA (Navy, DTSC, RWQCB and EPA) have now signed it. As stated in the amendment, it becomes effective on the date when the EPA Regional Administrator signs. A copy is included for your files. Call me at 415-744-2383 if you have any questions.

Sincerely,

Michael D. Gill
Remedial Project Manager
Federal Facilities Cleanup Office

cc (w/ copy): Elizabeth Adams (RWQCB)
C. Joseph Chou (DTSC)
Ken Eichstaedt (URS)
Cliff Kirchof (Schlumberger)
A. Eric Madera (Raytheon)
Josh Marvil (PRC) (Fax)
Sandy Olliges (NASA)
Peter Strauss (MHB)