

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX**

IN THE MATTER OF:)	U.S. EPA Docket No.
)	RCRA-7003-09-2013-0002
Former Soils Fill Area)	
NASA Ames Research Center)	Proceeding under Section
)	7003(a) of the Resource
Respondent,)	Conservation and Recovery Act,
)	as amended, 42 U.S.C. § 6973(a)
United States National Aeronautics)	
and Space Administration)	

UNILATERAL ADMINISTRATIVE ORDER

INTRODUCTION

This Order requires Respondent, the United States National Aeronautics and Space Administration (NASA), to take interim and long-term response actions at the Former Soil Fill Areas (FSFA), also known as Area of Investigation 14 (AOI 14), located on the former NAS Moffett Field (Moffett) in California, in order to stabilize and address soil contamination. NASA deposited fill contaminated with polychlorinated biphenyls (PCBs), dichlorodiphenyltrichloroethane (DDT), lead, chromium, cadmium, and zinc at the FSFA in a manner that threatens to discharge pollutants into the surrounding Stormwater Retention Pond, which serves as actual and potential habitat for several ecological receptors. The United States Navy (Navy) has already taken remedial action at the Stormwater Retention Pond as part of Site 25 at the Moffett Superfund Site. Because the FSFA has not been stabilized and the contamination not addressed, the FSFA may present an imminent and substantial endangerment to the environment and threatens to recontaminate the Navy's Site 25 cleanup.

I. JURISDICTION AND PROCEDURE

1. This Administrative Order (Order) is issued to NASA by the United States Environmental Protection Agency (EPA) pursuant to the authority vested in the EPA Administrator by Section 7003(a) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. Section 6901 *et seq.* (RCRA). The authority vested in the EPA Administrator has been duly delegated to the Regional Administrator of EPA, Region IX, by EPA Delegation 8-22-B (May 11, 1994), and further redelegated in Region IX to the Directors of the Waste Management Division and the Superfund Division, and the Director, Deputy Director and Assistant Directors of the Enforcement Division by Regional Delegation R9-1200 TN 100 (February 11, 2013).
2. NASA is an Agency of the Executive Branch of the Federal Government and is subject to, and must comply with, Section 7003 of RCRA in the same manner and to the same extent as any "person," as defined in Section 1004(15) of RCRA, and is subject to such requirements, in accordance with Section 6001 of RCRA. EPA has determined that NASA's past or present handling, storage, treatment, transportation or disposal of solid and/or hazardous wastes at FSFA may present an imminent or substantial endangerment to health or the environment within the meaning of Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).
3. Notice of this Order has been provided to the State of California.

II. PARTIES BOUND

4. This Order shall apply to and be binding upon NASA, and its directors, officers, employees, agents, successors and assigns, and upon all other persons and entities who are under the direct or indirect control of NASA, including, but not limited to,

any contractors or independent agents or consultants acting under or for NASA in performing its obligations under this Order.

5. This Order is based on the administrative record compiled by EPA and is available for review by NASA and the public at EPA Region IX's Superfund Records Center at 95 Hawthorne Street in San Francisco, California.
6. No change in the ownership or legal status of NASA, or of any property to which access is required for performance of any obligations under this Order, will in any way alter NASA's obligations and responsibilities under this Order.
7. In the event of any change in ownership or control of the FSFA area, NASA shall notify EPA in writing of the nature of any such change no later than thirty (30) calendar days prior to the effective date of such change. In addition, NASA shall provide a copy of this Order to any successor to the FSFA, or portions thereof, at least thirty (30) calendar days prior to the effective date of such change.
8. As directed by the EPA Project Manager, NASA shall provide a copy of all documents approved under or pursuant to this Order that are relevant to compliance with this Order to each contractor, sub-contractor, laboratory, or consultant retained to perform any work under this Order, within five (5) days after the Effective Date of this Order or on the date such services are retained, whichever date occurs later. Notwithstanding the terms of any contract, NASA is responsible for compliance with this Order and for ensuring that its contractors, subcontractors and agents comply with this Order.

III. STATEMENT OF PURPOSE

9. The purpose of this Order is to require NASA to do the following at the FSFA in Moffett Field, California: (1) provide a current conditions report regarding the FSFA; (2) perform interim measures at the FSFA to prevent or mitigate threats to human health or the environment; (3) perform a RCRA Facility Investigation (RFI) to determine fully the nature and extent of any release of hazardous wastes, solid wastes, and/or hazardous constituents at and/or from the FSFA; (4) perform a Corrective Measures Study (CMS) to identify and evaluate alternatives for corrective action necessary to prevent or mitigate migration or releases of hazardous wastes, solid wastes, and/or hazardous constituents at and/or from the FSFA; and (5) perform the Corrective Measures Implementation (CMI). NASA shall perform all work required by his Order in a manner consistent with all applicable federal, state, and local laws and regulations.

IV. FINDINGS OF FACT

10. Respondent NASA is an agency of the United States.

11. In 1939, the National Advisory Committee for Aeronautics (NACA) established the Ames Aeronautical Laboratory on 62 acres adjacent to NAS Moffett Field, then known as the Sunnyvale Naval Air Station. Since that time, NACA and its successor agency, NASA, have owned and operated at Ames Aeronautical Laboratory and what is now NASA Ames Research Center (NASA Ames). In 1994, the Navy transferred a majority of NAS Moffett Field to NASA.
12. Moffett is a National Priorities List (NPL) site, and the Navy is conducting cleanup at Moffett under a 1990 Federal Facilities Agreement (FFA) with the EPA and the State of California. As part of the Moffett Site, the Navy selected a remedy for Site 25 in 2010 to protect actual and potential ecological receptors from exposure to contamination in the Eastern Diked Marsh and Stormwater Retention Pond. The Navy completed the Site 25 remedy during 2012. Details of the Navy's Site 25 cleanup can be found in the Final RD/RA Work Plan for Site 25 (March 2012) and the currently-pending Site 25 Remedial Action Completion Report (due in spring 2013).
13. The FSFA is located in the northern portion of NASA Ames and extends northward from North Perimeter Road into the Stormwater Retention Pond of the Navy's Site 25. (See Attachment 1, Map of AOI 14 and surrounding area.) AOI 14, the largest of the peninsulas that comprise the FSFA, extends out into the Central Basin of NASA's Stormwater Retention Pond and the Mid-Peninsula Regional Open Space District (MROSD). The other two peninsulas, N-217 and N-217A, comprise an additional 5.6 acres. The FSFA varies in thickness from two to four feet at the southern end and eight to twelve feet at its northern end. Groundcover across the FSFA varies and includes tall grasses and low-lying brush. The three peninsulas are alternatively identified together as AOI 14 and at times AOI 14 only refers to the largest peninsula with the smaller ones identified individually as N217 and N-217A.
14. According to NASA's Draft Sampling and Analysis Plan for AOI 14, N217, and N217A, the FSFA is suspected to be composed of excess site soil material, some of which originated from site preparation for the National Full Scale Aerodynamics Complex wind tunnel.
15. The FSFA peninsulas jut into the area that is the Navy's Site 25. Currently Site 25 is a managed pond, which includes seasonal wetland habitat. This area currently hosts federal and state endangered species, including salt marsh harvest mice and their habitat. It also includes nesting areas for the Northern mocking bird, mourning doves, Alameda song sparrows, and killdeer. Because this area may be restored to tidal marsh in the future, the Navy's Site 25 risk assessment was conducted assuming that future ecological receptors would be those found in a tidal marsh, specifically that Site 25 would be populated by plants and animals typically found in similar marshes in South San Francisco Bay. These ecological receptors include the

Alameda song sparrow, black-necked stilt, California clapper rail, great blue heron, mallard, northern harrier, and salt marsh wandering shrew.

16. The Site 25 Ecological Risk Assessment (ERA) determined that remediation was necessary to protect ecological receptors. The ERA evaluated potential effects on plants and animals from exposure to the types of contamination found at Site 25, focusing on potential reproductive damage and reduction in reproductive life span in plants and animals and on adverse effects on growth. The Site 25 Human Health Risk Assessment (HHRA) found that risks to human receptors were currently at an acceptable level.
17. The Site 25 ERA concluded that lead, zinc, total DDT, and total PCBs in sediment at Site 25 posed an unacceptable risk to invertebrates, birds, and mammals and a potential risk to amphibians and reptiles should Site 25 be restored to tidal marsh. Site-specific remediation goals were set for sediment at Site 25 considering risk-based concentrations accounting for background concentrations.
18. Site-specific remediation levels for contaminants in sediment at Site 25 are total PCBs at 0.210 mg/kg, total DDT at 0.109 mg/kg, lead at 93.8 mg/kg, and zinc at 314 mg/kg. In various reports, NASA has adopted these sediment remediation levels as site-specific ecological soil remediation levels.
19. The Navy selected the Site 25 remedy in the ROD in 2010 and completed remedy implementation in 2012. The Site 25 remedy included treatment of contaminated sediment followed by excavation, off-site disposal, and focused restoration of the impacted area. At the time the Site 25 remedy was implemented, contamination at the FSFA had not yet been addressed.
20. Contamination at the FSFA has been assessed in several soil investigations conducted at NASA Ames and Moffett since 1992. These investigations have evaluated the prevalence of contamination, including PCBs, DDT, lead, and zinc. The facts detailing the presence and potential risks from PCBs, DDT, lead, chromium, cadmium, and zinc from contaminated soil associated with the FSFA are set out below and are documented in the following reports: 1992 EPA Listing Site Inspection, Moffett Site-Wide Ecological Assessment, Draft Pre-Construction Sampling Results Report for Site 25 (2003), NASA's 2004-2005 Site-Wide PCB Investigation, NASA's December 15, 2005 Draft Report of Findings for the FSFA, and NASA's September 13, 2007 Power Point Report of Findings Northern Soil Fill Areas. These evaluations show that PCBs, DDT, lead, chromium, cadmium, and zinc have all been found at the FSFA, with PCBs levels exceeding the site-specific soil cleanup level of 0.210 mg/kg, up to 108 mg/kg.
21. NASA conducted a Phase I soil investigation of the FSFA in 2004-2005 included 40 samples collected from 20 locations at the FSFA. The samples were analyzed for

total PCBs, total DDT, lead, and zinc, and PCBs, lead, and zinc were all detected. PCBs were detected in 27 of the 40 soil samples with concentrations ranging from 0.022 mg/kg to 88 mg/kg, 10 of which were above the site-specific ecological soil remediation level of 0.210 mg/kg. Lead was present in 35 of the 40 samples, with a maximum concentration of 67 mg/kg, which is below the site-specific ecological soil remediation level of 93.8 mg/kg. Zinc was detected in all 40 samples at a maximum concentration of 300 mg/kg, just under NASA's site-specific ecological soil remediation level of 314 mg/kg. Because the soil investigation was only conducted on a 200-foot grid down to a maximum depth of 30 inches, NASA's December 15, 2005 Draft Report of Findings for the FSFA, recommended further characterization of the extent of contamination.

22. In 2006, NASA completed a Phase II soil investigation to further characterize the extent of contamination at the FSFA that included 207 samples from 38 sampling locations. PCBs were found to be widely distributed across the largest AOI 14 peninsula to a depth of 14 feet below ground surface (bgs), with exceedances of NASA's site-specific ecological soil remediation level down to 10 feet bgs. The maximum detected PCB concentration was 108 mg/kg. In addition to PCBs, DDT, lead, cadmium, and chromium were found at AOI 14 above site-specific soil cleanup levels. Contaminants were also found above remediation levels at the smaller fill areas: chromium at N217 and PCBs and lead at N217A.
23. The nature and extent of contamination at the FSFA has not yet been fully characterized. Additionally, there has been no investigation of whether there has been any migration of hazardous wastes, solid wastes, and/or hazardous constituents from the FSFA to Site 25 since the Navy completed remedy implementation in 2012.
24. Based on food-chain modeling, each of the contaminants detected in the soil at the FSFA above site-specific soil cleanup levels is expected to have detrimental effects on the ecological receptors on and burrowing into the FSFA, such as the Alameda song sparrow and salt marsh wandering shrew. Additionally, contamination at the FSFA may further migrate to environmental receptors by way of soil, surface water, and sediments into Site 25 and have detrimental impacts on ecological receptors found in open water habitats, such as the black-necked stilt and great blue heron. In particular, PCBs and DDT can bio-accumulate and bio-magnify in living organisms, resulting in serious deformities, reproductive damage, cancer, and death.
25. As early as August 10, 2007, EPA was urging NASA to address contamination at the FSFA so that NASA's activities at the FSFA would not interfere with or otherwise adversely affect the protectiveness of the remedy under consideration for the Navy's Site 25. NASA has made a number of commitments to address the FSFA contamination at meetings of the Base Realignment and Closure (BRAC) Cleanup Team (BCT) since at least September 10, 2009. On December 17, 2010, EPA issued a letter to NASA requesting a work plan to conduct short-term and long-term actions

to address the contamination at AOI 14 prior to the Navy cleanup of Site 25 to protect against recontamination of Site 25 and to be protective of ecological receptors. The Navy followed with a December 21, 2010, letter also expressing concern that upgradient sources, including AOI 14, threaten recontamination of Site 25. On January 31, 2011, EPA provided comments on NASA's Draft AOI 14 Erosion Control Operations and Maintenance Plan and noted that erosion control measures will not provide a long-term solution for AOI 14 and that EPA expected a long-term response action to be completed.

26. Although NASA had not conducted work at the FSFA, the Navy proceeded with its remedial work at Site 25 in 2012, pursuant to its FFA with EPA and the State. After concluding the remedial work at Site 25, the Navy left in place silt fencing that had protected its cleanup areas and left additional silt fencing for NASA to use to protect against erosion and animal access to AOI 14. NASA failed to install the additional fencing. The boundary of AOI 14 extends several feet below water level and is currently uncontrolled and subject to stormwater flows. (See Attachment 2, January 23, 2013 photographs). These flows and erosion of the FSFA can spread the contamination into the Stormwater Basin and recontaminate the Navy's site 25 cleanup. Such movement of contaminants pollutes the sensitive habitat and threatens at-risk species.
27. Without stabilization and cleanup, the FSFA continues to threaten recontamination of Site 25 and to endanger ecological receptors, including the endangered salt marsh harvest mouse, both at the FSFA and at Site 25.

V. DETERMINATIONS AND CONCLUSIONS OF LAW

28. Based on the Findings of Fact set forth above, and the administrative record supporting this Order, EPA has determined the following:
29. NASA is an Agency of the Executive Branch of the Federal government and is subject to the requirements of Section 6001 of RCRA, 42 U.S.C. § 6961.
30. The past handling, storage, treatment, and/or disposal of soils contaminated with PCBs, DDT, lead, chromium, cadmium, and zinc has led to contamination of soils at the FSFA and potential recontamination of sediment at the Navy's Site 25.
31. PCBs, DDT, lead, chromium, cadmium, and zinc are solid wastes and/or hazardous wastes within the meaning of Section 7003 of RCRA, 42 U.S.C. § 6973. The solid wastes are also "hazardous wastes" as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5)(b) because they may pose a substantial present or potential hazard to human health or the environment.

32. EPA has determined that the past or present handling, storage, treatment, transportation or disposal of solid and/or hazardous wastes at FSFA may present an imminent or substantial endangerment to health or the environment within the meaning of Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).
33. NASA is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), and is subject to the requirements of RCRA, including Section 7003(a) of RCRA, 42 U.S.C. § 6973(a), in the same manner as any other "person," pursuant to Section 6001 of RCRA, 42 U.S.C. § 6961.
34. NASA is a person that has contributed to the handling, storage, treatment and/or disposal of solid wastes and/or hazardous wastes at the FSFA which may present an imminent and substantial endangerment to human health and the environment.
35. The Director of the Superfund Division of EPA, Region IX, has determined that issuance of this Order is necessary to protect public health and the environment.

VI. ORDER

Based on the foregoing FINDINGS OF FACT and CONCLUSIONS OF LAW, and pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a), it is hereby ORDERED that:

36. NASA shall perform the following work in the manner and by the dates specified herein. All work undertaken pursuant to this Order shall be performed in a manner consistent with RCRA, its implementing regulations, with the approval of the EPA Project Manager and consistent with all relevant EPA guidance documents as appropriate. All EPA-approved work plans, reports, and other such documents required under this Order become enforceable under this Order.

A. Current Conditions Report

37. Within thirty (30) days after the effective date of this Order, NASA must submit to EPA for approval, in accordance with Section X, a Current Conditions Report that includes any recent sampling data from the FSFA, a summary of previous investigations and corrective actions, a summary of all previous compliance violations, all known hazardous waste and hazardous constituents releases to the environment, the physical setting of the FSFA and maps of the FSFA setting and layout.

B. Interim Corrective Action Measures

38. Within 30 days after the effective date of this Order, NASA must submit a work plan to EPA for the implementation of Interim Corrective Action Measures to immediately

stabilize contamination at the FSFA in order to protect human health or the environment and stem further contaminant migration. NASA shall implement the Interim Corrective Action Measures Work Plan upon written approval from EPA in accordance with Section X of this Order. The Interim Corrective Action Measures Work Plan should ensure that the interim measures are designed to mitigate immediate or potential threats to the environment and should be consistent with the objectives of, and contribute to the performance of, any long-term corrective measures which may be required at the FSFA.

The Interim Corrective Action Measures Work Plan should also include the following sections:

- a. interim measures objectives;
- b. public involvement plan;
- c. data collection quality assurance;
- d. data management;
- e. design plans and specifications;
- f. interim measures inspections, operation and maintenance;
- g. project schedule;
- h. interim measure construction quality assurance; and
- i. reporting requirements.

The Interim Corrective Action Measures Work Plan should also be accompanied by a Health and Safety Plan.

39. Within sixty (60) days of completion of the Interim Corrective Action Measures, NASA shall submit to EPA for approval, in accordance with Section X, an Interim Corrective Action Measures Completion Report documenting the actions taken. The Interim Corrective Action Measures Completion Report shall be signed by NASA's project coordinator and include as-built drawings signed and stamped by a professional engineer.

C. RCRA Facility Investigation (RFI).

40. Within thirty (30) days of NASA's receipt of EPA's written approval of the Interim Corrective Action Measures Completion Report, NASA shall submit to EPA for approval in accordance with Section X of this Order a work plan and schedule for a RCRA Facility Investigation (RFI). The focus of the RFI shall be the comprehensive identification of the nature and extent of potential releases of hazardous waste and/or hazardous constituents at or from the FSFA which may pose an unacceptable risk to human health and the environment.
41. The RFI Work Plan shall document the procedures and provide a specific schedule that NASA shall use to conduct those investigations necessary to:

- a. Provide any further characterization of the environmental setting, including identification of reasonably foreseeable future uses of the FSFA, and/or the sources and nature of hazardous wastes and/or constituents;
 - b. Characterize extent of contamination at and released from the FSFA;
 - c. Identify any additional areas of concern;
 - d. Collect any additional data necessary to conduct a Risk Assessment;
 - e. Evaluate risk and develop cleanup standards; and
 - f. Develop appropriate Corrective Action Measures.
42. The RFI Work Plan shall detail the methodology NASA shall use to: (1) gather data needed to make decisions on stabilization during the early phase of the RFI; (2) identify and characterize all sources of contamination; (3) define the degree and extent of contamination; (4) characterize the potential pathways of contaminant migration; (5) identify actual or potential human and/or ecological receptors; and (6) support the development of alternatives from which a corrective action measure may be selected.
43. The RFI Work Plan shall include the following sections:
 - a. RFI scope;
 - b. RFI Work Plan Objectives and Explanation of Cleanup Standards;
 - c. Environmental Setting and Characterization Plan;
 - d. Description of Current and Previous Investigation and Corrective Action Activities;
 - e. Interim Stabilization Strategy;
 - f. Potential Receptor Identification Plan (ecological and human);
 - g. RFI Project Management Plan;
 - h. RFI Sampling and Analysis Plan;
 - i. RFI Data Quality Objectives;
 - j. RFI Quality Assurance Project Plan;
 - k. Data Management Plan;
 - l. Health and Safety Plan;
 - m. Communications Plan;
 - n. Schedule for Implementation of the RFI Work Plan; and
 - o. Reporting Requirements.
44. Within thirty (30) days of NASA's receipt of EPA's written approval of the RFI Work Plan, NASA will begin implementation of the RFI by performing the investigation as called for and in accordance with the schedule in the approved RFI Work Plan.
45. NASA shall submit a draft RFI Report to EPA for review and comment in accordance with the EPA approved RFI Work Plan Schedule.

46. After receipt of EPA's comments on the draft RFI Report, NASA shall submit a final RFI Report to EPA for approval in accordance with the EPA-approved RFI Work Plan Schedule. EPA will review the RFI Report and notify NASA in writing of EPA's approval/disapproval, or modification in accordance with Section X of this Order.

D. Corrective Measures Study (CMS) Report

47. Within sixty (60) days of EPA's approval of the RFI Report, or NASA's receipt of a written request from EPA, NASA shall submit a work plan and a schedule for developing a Corrective Measures Study (CMS) Report to EPA for approval in accordance with Section X of this Order. NASA shall implement the approved CMS Work Plan, in accordance with the EPA-approved CMS Report Schedule.
48. In accordance with the approved CMS Report Schedule, NASA shall submit a draft CMS Report to EPA for review and comment and submit a final CMS Report to EPA for approval in accordance with Section X of this Order.
49. As part of its preparation of the CMS Report, NASA shall prepare treatability studies for all potential corrective measures that involve treatment except where NASA can demonstrate to EPA's satisfaction that they are not needed. The CMS Report shall include, at a minimum, a summary of the treatability studies and conceptual design. If NASA believes that treatability studies are not necessary, NASA shall submit a justification for such position in accordance with the approved CMS Report Schedule. EPA may approve, disapprove, or modify NASA's request to forgo performance of a treatability study in accordance with Section X of this Order.
50. The CMS Report shall detail the methodology used for developing and evaluating potential corrective measures to remedy any contamination at or released from the FSFA. The CMS Report shall identify the potential corrective measures, including any innovative technologies that may be used for the containment, treatment, and/or disposal of contamination.
51. The CMS Report shall contain, at a minimum, the following information:
 - a. A description of the general approach to the CMS and potential remedies;
 - b. A statement of the overall objectives of the study;
 - c. The specific strategies utilized for evaluating remedies to ensure compliance with cleanup standards at the point(s) of compliance;
 - d. A justification for each corrective measure that NASA studied to achieve the cleanup standards;
 - e. An evaluation of any treatability studies performed;

- f. An evaluation of the overall protectiveness of human health and of the environment for each corrective measure studied;
 - g. The ability to attain the cleanup standards at the points of compliance for each corrective measure studied;
 - h. The ability of each corrective measure to control the source(s) of release(s);
 - i. Local environmental or public health standards, regulations, and/or ordinances that will affect the design, operation, and timing of each corrective measure alternative and how those legal requirements will be met;
 - j. An assessment of short-term and of long-term reliability and effectiveness of each corrective measure studied, including, but not limited to, the methodology used to estimate the short-term and long-term reduction of toxicity, mobility, or volume of waste and the resulting estimate;
 - k. An evaluation of potential optimization methods and/or strategies to supplement each corrective measure;
 - l. An estimated time frame for achieving cleanup standards identified through the risk assessment and cleanup standard development process for each corrective measure alternative;
 - m. An evaluation of ease of implementation of each corrective measure;
 - n. An estimate of the cost including capital and annual operation and maintenance costs of each corrective measure;
 - o. A recommendation as to which corrective measure is the most appropriate and the rationale for such recommendation; and
 - p. A proposed timeline to construct and implement NASA's preferred corrective measure(s).
52. NASA will, as necessary, keep EPA informed of progress and interim findings throughout the course of the CMS process by regularly scheduled meetings by telephone and in person and by written reports.
53. Upon receipt of the Draft CMS Report, EPA will evaluate the estimates of the risk to the public and environment that are expected to remain after a particular corrective measure alternative has been completed and will evaluate the durability, reliability, and effectiveness of any proposed Institutional Controls.
54. Statement of Basis. EPA may approve the Draft CMS Report and select final corrective measures or require NASA to revise the CMS Report and/or perform additional corrective measure studies. Once approved by EPA, the Draft CMS Report shall become Final. Once the CMS report is final, EPA will draft a Statement of Basis which will include a description of EPA's proposed corrective measures and EPA's justification for proposing each such corrective measure. EPA will provide the public and the State with an opportunity to review and comment on the Statement of Basis.

55. Final Decision and Response to Comments. After consideration of all comments on the proposed corrective measures, EPA will develop the Final Decision and Response to Comments (FDRTC) to document EPA's selected corrective measures, and EPA's response to the public's comments. EPA will notify NASA of the final corrective measures selected by EPA in the FDRTC.

E. Corrective Measures Implementation

56. Corrective Measures Work Plan and Design:

- a. Within thirty (30) calendar days of publication of the FDRTC, NASA shall submit to EPA for review and comment a Corrective Measures Implementation (CMI) Work Plan for implementation of the corrective measures selected including a description of how the Corrective Measures will attain the cleanup standards described in the FDRTC.
- b. Within thirty (30) calendar days of receipt of EPA's approval of the CMI Work Plan, NASA shall submit to EPA for review and comment a CMI Design Report including an operation and maintenance (O&M) description and timetable.
- c. Off-Site Shipment of Waste Material. "Waste material" shall mean any "hazardous substance" as defined under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), any pollutant or contaminant as defined under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33), or any "solid waste" as defined under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27). NASA shall, prior to any off-site shipment of waste material from the Facility to an out-of-state waste management facility, provide written notification of such shipment of waste material to the appropriate state environmental official in the receiving facility's state and to EPA's Designated Project Manager. In shipping waste material off-site, NASA shall comply with all applicable legal requirements, including RCRA's manifest requirements and land disposal restrictions. Before shipping any waste material from the Facility to an off-site location:
 - i. NASA shall include in the written notification the following information: (1) the name and location of the facility to which the waste material is to be shipped; (2) the type and quantity of the waste material to be shipped; (3) the expected schedule for the shipment of the waste material; and (4) the method of transportation. NASA shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the waste material to another facility within the same state, or to a facility in another state.

- ii. NASA shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. NASA shall only send Waste Material from the Facility to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

57. Corrective Measures Construction

- a. NASA shall commence and complete construction and/or implementation of the selected corrective measures in accordance with the schedules and specifications set forth in the EPA-approved CMI Work Plan and EPA-approved CMI Design Report.
- b. Within thirty (30) calendar days of completion of construction of the selected corrective measures, NASA shall submit to EPA for review and approval a CMI Report and certification. A registered professional engineer and NASA's Project Coordinator must state in the CMI Report that the approved cleanup standards have been attained in full satisfaction of the FDRTC and the requirements of this Order. The CMI Report shall describe activities performed during construction, provide actual specifications of the implemented corrective measure, and provide an assessment of CMI performance.
- c. If EPA determines that the constructed project is consistent with the EPA-approved CMI Design Report and that the corrective measures have achieved or are achieving all of the cleanup requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report, EPA shall approve the CMI Report.
- d. If EPA determines that the constructed and/or implemented project is not consistent with the EPA-approved CMI Design Report and/or that the corrective measures have not achieved or are not achieving all of the cleanup requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report, EPA shall notify NASA in writing of those activities that must be undertaken to complete the corrective measures requirements and shall set forth a schedule for the completion of those activities. NASA shall complete the activities in accordance with the schedule set forth in the EPA notification.
- e. Nothing in this Section shall limit EPA's authority to implement or require performance of Alternative and/or Supplemental Corrective Measure(s) or to take any other appropriate action under RCRA, CERCLA, or any other legal authority.

58. Corrective Measures Operation and Maintenance

NASA shall perform all O&M activities in accordance with the timetable set forth in the EPA-approved CMI Design Report and any EPA-approved O&M Plan.

59. Corrective Measures Assessment Reports

- a. Within 120 days after EPA approval of the CMI Report, NASA shall submit a CMI Assessment Report to EPA for review and approval. The CMI Assessment Report shall provide an evaluation of the effectiveness of the corrective measures.
- b. If EPA determines that the corrective measures are not meeting the cleanup objectives set forth in the FDRTC, EPA shall notify NASA in writing of those activities that must be undertaken to meet the objectives of the corrective measures and shall set forth a schedule for the completion of those activities. NASA shall complete the activities in accordance with the schedule set forth in the EPA notification.
- c. No later than five (5) years after the effective date of this Order and every five (5) years thereafter until receipt of approval by EPA of a Certificate of Completion, NASA shall submit to EPA a CMI Five-Year Assessment Report. Such report shall contain an evaluation of the past and projected future effectiveness of the corrective measures to attain the cleanup standards.

60. Completion of Corrective Measures

- a. After NASA has determined that the corrective measures have been fully implemented in accordance with the EPA-Approved CMI Design Report and FDRTC, NASA shall notify EPA in writing and request EPA's approval to discontinue the corrective measures. The request shall explain the basis for NASA's conclusion and include all available documentation supporting such conclusion.
- b. Upon receipt of EPA's approval of NASA's request to discontinue all corrective measures, NASA may discontinue all corrective measures, except that NASA shall continue to monitor as required to confirm the continued protectiveness of the corrective measures. NASA shall submit to EPA the results of such post-construction monitoring.
- c. If at any time during the post-construction monitoring program EPA determines that the level of any hazardous constituent and/or hazardous waste in the soils or sediments has increased above the cleanup standards set forth in the FDRTC for such hazardous constituent and/or hazardous waste, EPA may determine if Alternative and/or Supplemental Corrective Measures need to be initiated to achieve the cleanup standards. EPA shall issue a written notification to NASA of any such determination. Any decision by EPA to require Alternative and/or Supplemental Corrective Measures shall be made pursuant to applicable EPA regulations and guidance.
- d. If, after the post-construction monitoring program is completed to EPA's satisfaction, the established cleanup standards have been maintained and all other aspects of the

Corrective Measures O&M have been completed, NASA shall submit a Certification of Completion for all corrective measures to EPA for review and approval. The Certification of Completion shall provide documentation sufficient to support a determination that cleanup standards set forth in the FDRTC have been maintained and shall include all available documentation supporting such a determination.

VII. ADDITIONAL WORK

61. In addition to the work performed under the work plans described above, EPA may determine that additional monitoring, testing, analysis, reporting, or removal is necessary to ascertain the nature and extent of or abate any hazard to human health and the environment, which may exist because of the presence or release of hazardous wastes or hazardous constituents at or from the FSFA. If EPA determines that such additional work is necessary, EPA will notify NASA in writing and specify the basis for its determination that additional work is necessary. Within three (3) days after the receipt of such determination, NASA shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, NASA shall submit for EPA approval a work plan for the additional work. EPA will specify the scope of such work plan. Such work plan shall be submitted by NASA within seven (7) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. On approval by EPA, NASA shall implement such work plan.

VIII. MINIMUM QUALIFICATIONS FOR PERSONNEL

62. All work performed by the NASA pursuant to this Order shall be under the direction and supervision of a professional engineer, hydrologist, geologist, or environmental scientist, with expertise in hazardous waste cleanup. NASA's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Within fourteen (14) days of this Order NASA shall submit to EPA in writing the name, title, and qualifications of the supervisory personnel and of any contractors or subcontractors to be used in carrying out the terms of this Order. Additionally, NASA shall ensure that when a license is required, only licensed individuals shall be used to perform any work required by this Order. NASA shall identify whether any contractor is on the List of Parties Excluded from Federal Procurement or Non-Procurement Programs. The qualifications of the persons, contractors, and subcontractors undertaking the work for NASA shall be subject to EPA review and approval.
63. If EPA disapproves of any individual's or contractor's technical or work-experience qualifications, EPA will notify NASA in writing. After receipt of such notice, NASA shall, within five (5) working days of receipt of EPA's written disapproval, notify EPA of the identity and qualifications of the replacement(s). Should EPA disapprove of the proposed replacement(s), NASA shall be deemed to have failed to comply with the Order.

IX. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

64. In the event of any action or occurrence during performance of the Work which causes or threatens a release of waste material from the FSFA that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, NASA shall immediately take all appropriate action. NASA shall take these actions in accordance with all applicable provisions of this Order in order to prevent, abate or minimize such release or endangerment caused by the release or threatened release. NASA shall also immediately notify the Emergency Spill Reporting Hotline at (415) 947-4400 and the EPA Project Manager.
65. In addition, in the event of any release of a hazardous substance from the FSFA, NASA shall immediately notify the EPA Project Manager, the Chief of the EPA Region IX Federal Facilities Branch, Superfund Division, and the National Response Center at (800) 424-8802. NASA shall submit a written report to EPA for review and approval within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c).
66. If EPA determines that activities in compliance or non-compliance with this Order have caused, or may cause, a release of a solid waste or may pose a threat to human health or the environment, EPA may direct NASA to stop further implementation of this Order, or a portion of this Order, for such period of time as EPA determines may be needed to abate any such release or threat and/or undertake any action authorized by law which EPA determines to be necessary.

X. SUBMISSIONS/EPA REVIEW

67. NASA shall submit all plans, reports and other deliverables required by this Order to EPA for review and approval. If requested by EPA, NASA shall submit all portions of any report or other deliverable in electronic form. After review of any plan, report, or other item submitted by NASA for approval, EPA shall notify NASA that it (a) approves the submission; (b) approves the submission with specified conditions; (c) will modify the submission to cure the deficiencies and provide it to NASA for implementation; (d) disapproves, in whole or in part, the submission and directs that NASA modify the submission; or (e) any combination of the above.
68. Prior to approval by EPA in writing, no work plan, report, or other submission shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute approval, nor shall any oral approval or oral assurance of approval be considered as binding. Any verbal direction by the Project Manager will

be followed by a letter confirming the exchange.

69. On receipt of a notice of disapproval pursuant to Paragraph 67 above, or a request for a modification, NASA shall, within seven (7) calendar days or such longer time as specified by EPA in its written notice of disapproval or request for modification, correct the deficiencies and resubmit the work plan, report, schedule, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, NASA shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission.
70. Within seven (7) calendar days following NASA's receipt of EPA's written approval, or approval with modifications of a work plan, NASA shall implement the approved document, unless a different date is set out in the approved plan, or unless otherwise specified by EPA.
71. NASA shall notify EPA's Project Manager, as identified in Section XII, at least forty-eight (48) hours prior to commencement of any field work pursuant to this Order or any work plan approved in accordance with this Order.
72. All work plans, reports, or other submissions required by this Order are, on EPA approval, incorporated into, and enforceable under, this Order. Any noncompliance with such EPA-approved work plans, reports, specifications, schedules, and attachments shall constitute noncompliance with this Order. Oral advice or approvals given by EPA representatives shall not relieve NASA of its obligation to obtain any formal, written approvals required by this Order.
73. In all instances in which this Order requires written submissions to be submitted to EPA, each submission must be signed by a responsible official with authority to bind NASA to the commitment or statement contained in each respective submission.
74. In all instances in which this Order requires written submissions to EPA, each submission must be accompanied by the following certification by a responsible official:

I certify that the information contained in and accompanying this submission is true, accurate, and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the official having supervisory responsibility for the person who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

The certification pursuant to this Paragraph shall be followed by the name, title and signature of the responsible official.

XI. QUALITY ASSURANCE/QUALITY CONTROL

75. NASA shall follow EPA guidance for sampling and analysis. Work plans shall contain quality assurance/quality control (QA/QC) and chain of custody procedures for all sampling, monitoring, and analytical activities. Any deviations from the QA/QC and chain of custody procedures in approved work plans must be approved by EPA prior to implementation, must be documented (including reasons for the deviations), and must be reported in the applicable report. NASA shall only use laboratories which have a documented quality system that complies with the "Uniform Federal Policy for Quality Assurance Project Plans" (March 2005), "EPA Requirements for Quality Management Plans for Environmental Data Operations (QA/R-5)" (EPA/240/B-01/003, March 2001) or equivalent documentation as determined by EPA.
76. The contact person(s), name(s), addresses, and telephone numbers of the analytical laboratories that NASA proposes to use must be specified in the applicable work plan(s).
77. All work plans required under this Order shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s).
78. NASA shall monitor to ensure that high quality data is obtained by its consultant or contract laboratories. NASA shall ensure that laboratories used by NASA for analysis perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846 Third Edition as amended by Update IV, January 2008), or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, NASA shall specify and submit all such protocols for EPA approval in the work plan. EPA may reject any data that does not meet the requirements of the approved work plan or EPA analytical methods and may require resampling and additional analysis.
79. NASA shall ensure that laboratories it uses for analyses participate in a QA/QC program equivalent to that which is followed by EPA. EPA may conduct a performance and QA/QC audit of the laboratories chosen by NASA before, during, or after sample analyses. On request by EPA, NASA shall have the laboratory perform analyses of samples provided by EPA to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, resampling and additional analysis may be required.

XII. PROJECT MANAGERS

80. EPA hereby designates as its Project Manager:

Yvonne Fong
U.S. Environmental Protection Agency
Region IX, SFD 8-3
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-4117
Fong.YvonneW@epa.gov

81. Within ten (10) calendar days of the effective date of this Order, NASA shall designate a Project Manager and submit the designated Project Manager's name, address, and telephone number in writing to EPA. EPA retains the right to disapprove of a designated Project Manager. If EPA disapproves of the designated Project Manager, NASA shall retain a different Project Manager and shall notify EPA of that person's name, address, telephone number, and qualifications within seven (7) days following EPA's disapproval.
82. Each Project Manager shall oversee the implementation of this Order and shall designate a person to act in his/her absence. Each Project Manager shall function as the principal project contact. Receipt by NASA's Project Manager(s) of any notice or communication from EPA relating to this Order shall constitute receipt by NASA.
83. NASA shall provide EPA with a written notice of any change in a designated Project Manager. Such notice shall be provided within seven (7) calendar days of any change in Project Manager.

XIII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

84. At the request of EPA, NASA shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by NASA pursuant to this Order. EPA will notify NASA in advance of the sampling event.
85. Within thirty (30) days, NASA shall submit to EPA the results of all sampling or tests or other data (including raw data) generated by, or on behalf of, NASA in implementing the requirements of this Order.

XIV. ON-SITE AND OFF-SITE ACCESS

86. At all reasonable times, NASA shall provide access to EPA and its agents to the FSFA and to all records and documentation relating to conditions at the FSFA and the activities conducted pursuant to this Order to EPA, and its employees, contractors, agents, consultants, and representatives. Respondent shall permit EPA representatives,

authorized designees, employees, agents, contractors, subcontractors, or consultants to enter and freely move about the FSFA until this Order is terminated for the following purpose(s):

- a. interviewing personnel, contractors (including subcontractors and independent contractors), or any other entity or individual responsible for implementing any aspect or portion of this Order;
 - b. inspecting records, operating logs, and contracts relating to this Order;
 - c. conducting sampling, monitoring, or any other such activity which EPA deems necessary; using a camera, sound recording, video or any other documentary type equipment; and
 - d. verifying the reports and data submitted to EPA by NASA under this Order.
87. To the extent that activities required by this Order, or by any approved work plans prepared pursuant hereto, must be done on other property not owned or controlled by NASA, NASA will use its best efforts to obtain access agreements from the present owners of such property within thirty (30) days of the date NASA becomes aware, or should have become aware, of the need to perform such work. Any such consent for access shall provide for access by EPA and the State. In the event such access could not be secured within this thirty (30) day period, NASA shall notify EPA in writing within seven (7) days thereafter of its inability to obtain access and the best efforts expended to secure such access. If, after using its best efforts, NASA has failed to obtain voluntary access, NASA shall utilize its authority to issue an administrative order providing for such access as may be required or shall refer the access issue to the Department of Justice. Such referral shall request a judicial order providing for such access as may be required, including seeking access on behalf of EPA and its designated representative. NASA shall ensure that EPA's Project Manager has a copy of any access agreements.
88. Nothing in this Order limits or otherwise affects EPA's right of access and entry pursuant to applicable laws, including RCRA, the Clean Water Act (CWA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

XV. RECORD PRESERVATION

89. NASA shall retain, during the pendency of this Order and for a minimum of six (6) years after its termination, a copy of all data, records, and documents now in its possession or control, or in the possession or control of its contractors, subcontractors, or representatives, or which come into the possession or control of NASA, its contractors, subcontractors, or representatives, which relate in any way to this Order. NASA shall notify EPA, in writing, at least ninety (90) days in advance of the destruction of any such records, and shall provide EPA with the opportunity to take possession of any such records. Such written notification shall reference the caption, docket number and date of issuance of this Order and shall be issued to the EPA Project Manager as listed in Section XII. NASA shall provide data, records and documents retained under this section at any

time before the expiration of the six (6) year period at the written request of EPA.

XVI. INFORMATION SUBMITTED TO EPA

90. Any information that NASA is required to provide or maintain pursuant to this Order is not subject to the Paperwork Reduction Act of 1995, 44 U.S.C. § 3501 *et seq.*
91. NASA may assert a business confidentiality claim in the manner described in 40 C.F.R. § 2.203(b) covering all or part of any information submitted to EPA pursuant to this Order. In accordance with 40 C.F.R. § 2.204(e)(4), any assertion of confidentiality shall be adequately substantiated by NASA when the assertion is made. Information submitted for which NASA has asserted a claim of confidentiality as specified above shall be disclosed by EPA only to the extent and manner permitted by 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by EPA without further notice to NASA. NASA shall not assert any confidentiality claim with respect to any physical, sampling, monitoring, or analytical data.

XVII. RESERVATION OF RIGHTS

92. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by NASA pursuant to this Order, and to order that NASA perform additional tasks.
93. EPA expressly reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which it may have. This Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, defenses, powers or authorities, civil or criminal, which EPA has under RCRA, CERCLA, the CWA, the Safe Drinking Water Act, the Clean Air Act, or any other statutory, regulatory, or common law enforcement authority of the United States.

XVIII. OTHER APPLICABLE LAWS

94. All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable federal, tribal, state, and local laws, regulations, permits, and ordinances.
95. Compliance by NASA with the terms of this Order shall not relieve NASA of its obligation to comply with RCRA, CERCLA, the CWA, or any other applicable federal, tribal, state, or local laws, regulations, permits, and ordinances.
96. This Order is not and shall not be interpreted to be a permit, or as a ruling or a determination of any issue related to a permit under federal, tribal, state or local law. Except as otherwise allowed under RCRA, this Order shall not in any way affect NASA's

obligation, if any, to secure such a permit, nor shall this Order be interpreted in any way to affect or waive any of the conditions or requirements that may be imposed by such permit, nor of NASA's right to appeal any conditions of such permit. NASA shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XIX. OTHER CLAIMS

97. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity, against any person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any solid wastes, hazardous wastes, hazardous constituents, hazardous substances, pollutants, or contaminants found at, taken to, or migrating from the FSFA.
98. By issuance of this Order, EPA assumes no liability for injuries or damages to persons or property resulting from any acts of omissions of NASA or its agents, contractors, subcontractors or other representatives.
99. EPA shall not be deemed a party to any contract involving NASA and relating to activities required under this Order or be liable for any claim or cause of action arising from, or on account of, any act or omission of NASA, its officers, employees, contractors, agents or assigns, in carrying out the activities required by this Order.

XX. SUBSEQUENT MODIFICATION OF ORDER

100. This Order may only be modified by written amendment signed by the EPA Region IX Superfund Division Director.
101. The EPA Project Manager or EPA Superfund Division managers may agree to changes in the scheduling of work to be performed. Any such changes must be requested in writing by NASA and be approved in writing by the EPA Project Manager or an EPA Superfund Division manager.
102. No informal advice, guidance, suggestions, or comments by EPA shall be construed to modify the requirements of this Order. Routine communications exchanged verbally, in person, by telephone or by electronic mail between the parties to facilitate the orderly conduct of work contemplated by this Order shall not alter or waive any rights or obligations of the parties under this Order, including NASA's obligation to obtain written approval, if and when required by this Order.

XXI. SEVERABILITY

103. If any provision or authority of this Order, or the application of this Order to any party or

circumstances, is held by any judicial or administrative authority to be invalid, the application of such provisions to other Parties or circumstances and the remainder of the Order shall not be affected thereby and shall remain in full force.

XXII. TERMINATION

104. NASA may seek termination of this Order by submitting to EPA a written document that indicates how all requirements of this Order have been addressed, and any associated dates of approval correspondence from EPA. The Order and all of its terms and provisions shall remain in effect until all of the activities called for by the Order are completed and NASA is so notified in writing by EPA. Such notice shall be signed by the EPA Region IX Superfund Division Director.
105. The provisions of this Order shall be deemed satisfied upon NASA's receipt of written notice from EPA that NASA has demonstrated to the satisfaction of EPA that the terms of the Order, including any additional tasks determined by EPA to be required pursuant to this Order, have been satisfactorily addressed. Such notice shall not be unreasonably withheld. This notice shall not, however, terminate NASA's obligations to comply with any continuing obligations hereunder, including, but not limited to, Section XV (Record Preservation), Section XVII (Reservation of Rights), Section XVIII (Other Applicable Laws), and Section XIX (Other Claims).

XXIII. OPPORTUNITIES TO CONFER

A. OPPORTUNITY TO CONFER WITH THE REGIONAL ADMINISTRATOR

106. Within five (5) days of NASA's receipt of this Order, the Director of the NASA Ames Research Center may request an opportunity to confer with EPA Region IX's Regional Administrator on this Order. Such request must be in writing and identify the issues which the NASA Ames Director wishes the Regional Administrator to consider. Following receipt of the conference request, the Regional Administrator will notify the NASA Ames Director of the arrangements and time for the conference. To request an opportunity to confer with the Regional Administrator, the NASA Ames Director must first comply with the procedures set forth in this Section.
107. The purpose of the conference shall be to discuss the issues that NASA would like the EPA Region IX Regional Administrator to consider in connection with this Order, the implementation of the response actions required by this Order, and whether NASA intends to comply with this Order. Following that conference, the EPA Region IX Regional Administrator will determine the status of the Order and so notify the NASA Ames Director in writing.

B. OPPORTUNITY TO CONFER WITH EPA ASSISTANT ADMINISTRATOR, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE

108. Within ten (10) calendar days receipt of the Regional Administrator's determination on the Order, if NASA's Assistant Administrator (AA) of Strategic Infrastructure wishes to confer with EPA's AA of the Office of Enforcement and Compliance Assurance (OECA), either through an exchange of letters or through a direct meeting, s/he must file a written request addressed to the EPA AA seeking an opportunity to confer. The conference request should specifically identify those issues previously discussed with the Region IX Regional Administrator which NASA wishes the EPA AA to consider. The request should be served on the EPA AA, OECA (Mail Code 2201A, U.S. EPA, 1200 Pennsylvania Avenue, N.W, Washington, DC 20460), with a copy to the Director, Federal Facilities Enforcement Office (Mail Code 2261A, U.S. EPA, 1200 Pennsylvania Avenue, N.W, Washington, DC 20460) and Region IX Regional Counsel (ORC-1, 75 Hawthorne Street, San Francisco, CA 94105).
109. If the NASA AA wishes to confer through a direct meeting, the request for a conference should also specifically identify the person(s) who will represent NASA. In addition, as part of its request for a conference either through an exchange of letters or a direct meeting, the NASA AA should attach copies of all necessary information regarding the issues. Failure to request a conference within the ten (10) day period will be deemed a waiver of the right to confer with the EPA AA. Following the conference, the EPA AA will determine the status of the Order and so notify the NASA AA in writing.

XXIV. POTENTIAL CONSEQUENCES OF FAILURE TO COMPLY

110. EPA reserves the right to bring an action against NASA under any applicable law for recovery of all response costs, including oversight costs, and past costs incurred by EPA with respect to the site that have not been reimbursed by NASA; and any costs incurred in the event that EPA performs activities required by this Order. Oversight costs shall mean costs that EPA incurs in monitoring and supervising NASA's performance of the work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing plans, reports and other documents submitted pursuant to this Order, as well as costs incurred in overseeing implementation of the work.
111. This Order, including but not limited to its provisions related to statutory requirements, interim measures, and corrective measures, recordkeeping, reporting, and schedules of compliance, shall be enforceable under citizen suits pursuant to Section 7002(a) of RCRA, 42 U.S.C. § 6972(a). In the event of any action filed under Section 7002(a) of RCRA, alleging any violation of this Order, it shall be presumed that this Order, including those provisions which address recordkeeping, reporting, and schedules of compliance, are requirements, standards, and conditions, and are thus enforceable under Section 7002(a) of RCRA.

XXV. NOTICE OF INTENT TO COMPLY

112. NASA shall, within five (5) days of the Effective Date of this Order, provide notice to EPA of its intent to comply with this Order. Verbal notice may be given to EPA's Project Manager, Yvonne Fong at (415) 947-4117, followed by written confirmation within two (2) days. EPA shall deem a failure to respond or a failure to agree to comply with this Order as a refusal to comply with this Order.

XXVI. ANTI-DEFICIENCY ACT

113. Nothing set forth in the Order shall require NASA to violate the Anti-Deficiency Act, 31 U.S.C. § 1341 *et seq.*

XXVII. EFFECTIVE DATE

114. This Order shall be effective ten (10) days after receipt of this Order if no conference with the Regional Administrator is requested pursuant to Section XXIII of this Order. If a conference with the Regional Administrator or the EPA AA for OECA is requested in the time and manner provided in Section XXIII above, the Order shall become effective three (3) calendar days after the receipt of a written determination regarding the status of this Order made by the EPA Region IX Regional Administrator or the EPA AA for OECA following any conference(s) held in accordance with Section XXIII.

XXVIII. NOTICE TO AFFECTED STATE

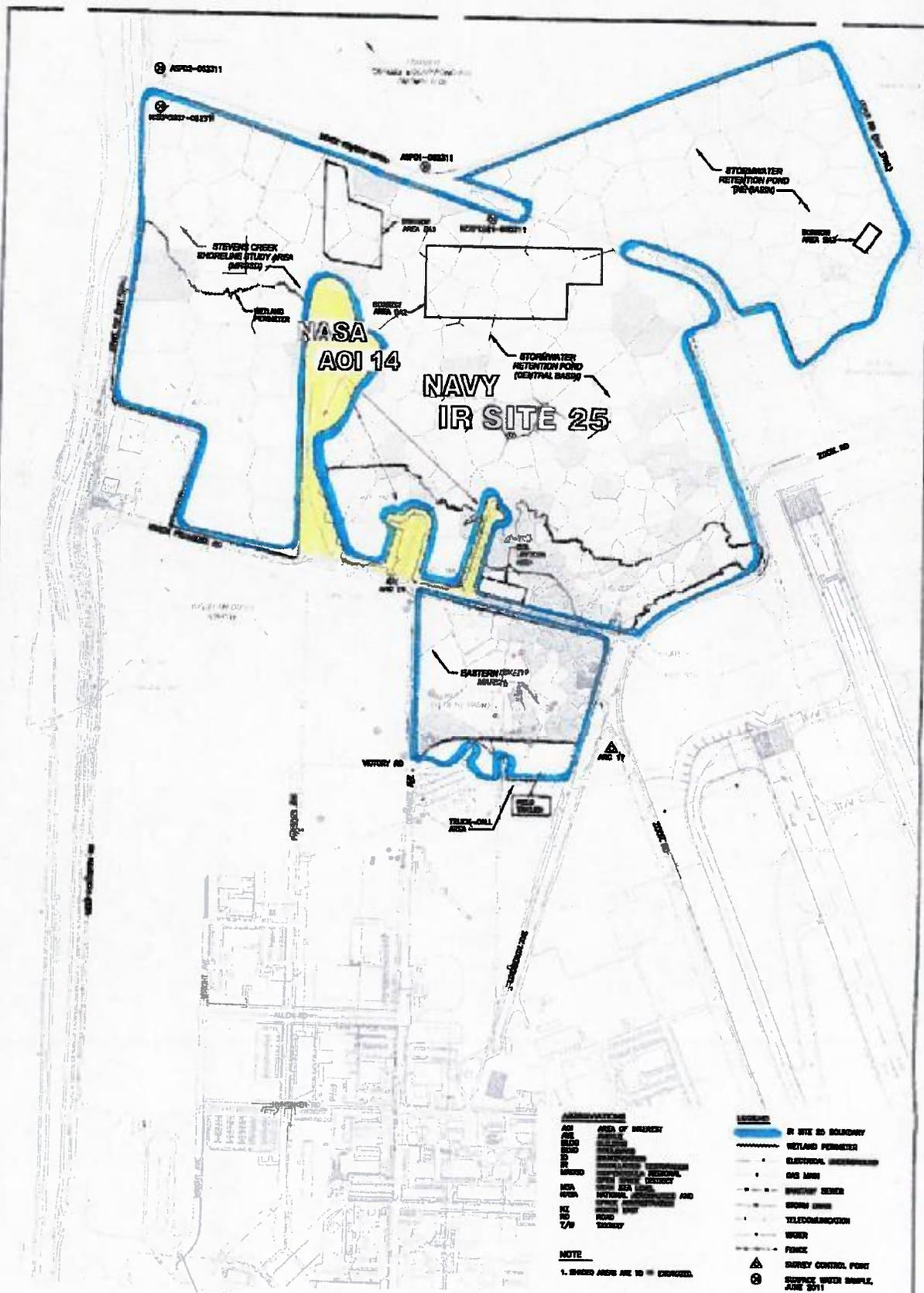
115. EPA has provided notice to the State of California.

IT IS SO ORDERED
BY U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IX

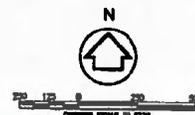
By: 
Jane Diamond, Director
Superfund Division
U.S. Environmental Protection Agency
Region IX

3/15/2013
Date

**FORMER SOILS FILL AREA
RCRA 7003 ORDER
ATTACHMENT 1**



- LEGEND**
- IR SITE 25 BOUNDARY
 - RETLAND PERMETER
 - ELECTRICAL UNDERGROUND
 - ONE MAN
 - SWIFTWAY DRIVE
 - STORM DRAIN
 - TELECOMMUNICATION
 - WATER
 - FENCE
 - ▲ ENERGY CONTROL POINT
 - ⊙ SURFACE WATER SAMPLE, JUNE 2011
- NOTE**
1. BROWN AREAS ARE TO BE EXCAVATED.

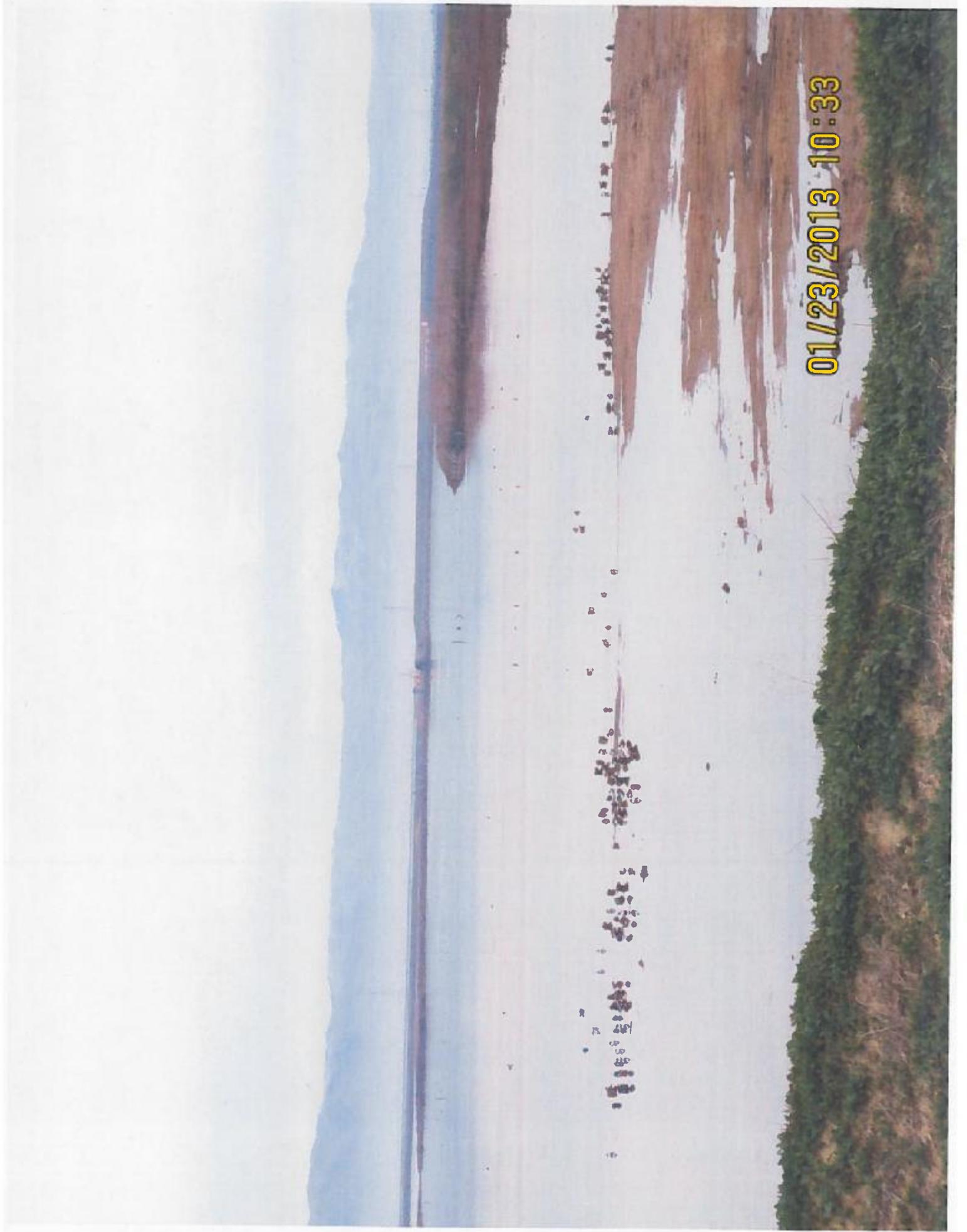


Check First
RAWP

VERIFY SCALE
INCLUDING DATA TO
BE OBTAINED FROM
FIELD SURVEY
© 2011 THE UNITED STATES
OF AMERICA

PROJECT: REMEDIATION OF IR SITE 25, FORMER NAS MOFFETT FIELD, CALIFORNIA
 DRAWING NO.: RA-25-001-001
 DATE: 11/11/11
 SCALE: AS SHOWN
 SHEET NO.: 1 OF 1
 PROJECT MANAGER: [Name]
 DESIGNER: [Name]
 CHECKER: [Name]
 APPROVER: [Name]

**FORMER SOILS FILL AREA
RCRA 7003 ORDER
ATTACHMENT 2**



01/23/2013 10:33

