

TRANSMITTAL

Date: 24 January 2001

From: Lynn Marie Hornecker 

To: **James Barton**
California Regional Water Quality Control Board (RWQCB)
Central Valley Region, Sacramento Office
3443 Routier Road, Suite A
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Subj: Responses to RWQCB Comments
Action Memorandum for Time-Critical Removal Actions
National Aeronautics and Space Administration (NASA)
Crows Landing Flight Facility (SOUTHWESTNAVFACENGCOM, November 2000)

We are transmitting responses to RWQCB comments dated 8 January 2001 pertaining to the Action Memorandum dated November 2000. Thank you for participating in the review of the Action Memorandum for the Time-Critical Removal Actions at NASA Crows Landing Flight Facility and for providing the list of State Water Board requirements for soil and groundwater cleanups. A formal transmittal letter may follow.

Please do not hesitate to call me at (619) 532-0783 if you have questions pertaining to the responses.

Thank you very much.

Attachment:

Responses to Comments from the California Regional Water Quality Control Board, Central Valley Region (SOUTHWESTNAVFACENGCOM, 24 January 2001)

CF:

Marianna Potacka (BRAC Environmental Coordinator, SOUTHWESTNAVFACENGCOM)
Francesca D'Onofrio (California Department of Toxic Substances Control)
Brad Hicks (Stanislaus County)
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Navy Team Members

Project File (Crows Landing)

RESPONSES TO COMMENTS FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
 CENTRAL VALLEY REGION

Subject: Final Action Memorandum, Time-Critical Removal Actions at the National Aeronautics and Space Administration (NASA) Crows Landing Flight Facility, California, Administration Area Plume at Installation Restoration Program (IRP) Site 17 (SOUTHWESTNAVFACENGCOM, November 2000)

Comment	Response
<p>Comments prepared by Mr. James L. Barton, California Regional Water Quality Control Board, Central Valley Region dated 8 January 2001</p> <p>Subject: Action Memorandum for Time-Critical Removal Action at the National Aeronautics and Space Administration (NASA) Crows Landing Flight Facility, Administration Plume at Installation Restoration Program (IRP) Site 17, Crows Landing, Stanislaus County, California</p> <p>Addressee: Ms. Marianna Potacka, BRAC Environmental Coordinator, NASA Crows Landing Flight Facility</p>	
<p>We have reviewed the <i>Action Memorandum for Time-Critical Removal Action at the National Aeronautics and Space Administration (NASA) Crows Landing Flight Facility, Administration Plume at Installation Restoration Program (IRP) Site 17, Crows Landing, Stanislaus County, California</i> (Memo), received 4 December 2000. The Memo documents the Navy's Time-Critical Removal Action (TCRAs) for Site 17 (Demolished Hanger Area) and the adjacent former underground storage tanks (USTs) at UST Cluster 1. The Navy discovered that, during the most recent groundwater monitoring event, that a previously identified petroleum hydrocarbon plume and a volatile organic compounds (VOCs) plume had become commingled, and that previously undetected contaminants of concern (COCs)</p>	<p>We appreciate your participation in the review of this document.</p> <p>The Navy will remove contaminant mass from the commingled petroleum hydrocarbon and volatile organic compound groundwater plume and acquire information pertaining to aquifer characteristics for use in developing and evaluating alternatives for the final remedy during the implementation of the time-critical removal actions.</p> <p>For clarification, the removal actions are intended as interim measures that will be followed by the development and implementation of the final remedy. The interim measures were not intended to provide hydraulic control over the plume.</p>

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 (SOUTHWESTNAVFACENGCOM, November 2000)

Comment	Response
<p>were present in the groundwater plume, specifically ethylene dibromide (EDB), acetone, 2-butanone (MEK), and 4-methyl 2-pentanone (MIBK). The Navy reports that the plume encompasses an area over 40 acres, and has spread to within 500 feet of the eastern boundary of the facility. The Navy has decided to undertake the time-critical removal action under authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as authorized under 42 U.S.C. Section 9604, Section 2705, and federal Executive Order 12580. The removal action will consist of groundwater extraction from areas of highest contaminant concentrations, using new or existing extraction or monitoring wells. The Navy specifies the removal as an interim attempt to remove adequate contaminant mass to protect human health and the environment, and provide hydraulic control over the groundwater plume. The Navy will transition the removal action into a remedial action if the interim response proves ineffective for addressing these contaminated groundwater issues.</p>	<p>The following text is extracted from Section II.A, Part 1 (Evaluation of the Release at the Administration Area Plume) of the Action Memorandum in order to restate the rationale for conducting the removal actions :</p> <p><i>"The Administration Area Plume has been evaluated according to the criteria presented in 40 CFR 300.415 (b). The releases of contaminants in a potential water supply have been confirmed through sampling that was conducted in July 2000. Due to the impacts to plume migration caused by pumping from nearby irrigation or other water supply wells and the proximity of the plume to the facility property boundary, the Navy will proceed with implementation of a time-critical removal action to extract contaminated groundwater from the area of highest contaminant concentrations in order to abate the potential threat to public health, to reduce potential exposure to human populations and animals from hazardous substances, and to abate the migration of contaminants to adjacent areas. Additionally, the extraction of contaminated groundwater will provide information pertaining to aquifer characteristics for use in the development and evaluation of remedial alternatives.</i></p>
<p>General Comment. We view this action to be a precursor to the final remedial action, and as such, require that cleanup standards be developed for this site. This document does not address the state requirements</p>	<p>Response: Comment acknowledged. The time-critical removal actions for the extraction of contaminated groundwater are intended as interim measures, and these interim measures are not intended</p>

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 (SOUTHWESTNAVFACENGCOM, November 2000)

Comment	Response
<p>for groundwater cleanup standards, as they relate to this removal action, or the final remedy. As stated previously in comments on 19 October 2000, several new Contaminants of Concern (COCs) have been detected in groundwater at the site. Cleanup levels have not been determined for the new COCs. Since several of the new COCs have extremely low Water Quality Goals in relationship to their concentrations in groundwater, cleanup levels will need to be established for the new COCs as well, in the Feasibility Study (FS) and Record of Decision (ROD).</p>	<p>to replace the final remedy. The Navy is in the process of revising the Feasibility Study (FS) in order to address all known chemicals of concern, to identify and evaluate Applicable or Relevant and Appropriate Requirements (ARARs), to identify and evaluate remedial alternatives, and to propose remedial action objectives.</p> <p>The prompt implementation of the time-critical removal actions will result in the removal of contaminant mass from the groundwater, reduction of the potential risk of exposure of human populations and animals to hazardous substances, reduction of the potential migration of hazardous substances from the site, and the collection of data that will be used in preparing the revised FS, the Proposed Plan, and the Record of Decision (ROD). Because the time-critical removal actions are interim responses intended to result in the reduction of potential risk of exposure to contaminants, final cleanup goals were not developed for these actions.</p>
<p>Specific Comment 1. Section V, Subsection A, Number 1 (V.A.1) states that extraction will continue until either 50000 gallons of water have been extracted, or ethylene dibromide (EDB) concentrations are lowered to 1000 ug/L. This is a five-fold reduction from the highest EDB level reported in the latest round of groundwater sampling (5080 ug/L). This figure (1000 ug/L) is still six orders of</p>	<p>Response: The time-critical removal actions were intended as interim measures to remove contaminant mass, to include but not be limited to EDB, acetone, MEK, MIBK, benzene, and petroleum hydrocarbons, from the groundwater (a potential drinking water source) at the areas of highest contaminant concentrations.</p>

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<p>magnitude above the EDB Maximum Contaminant Level (MCLs) of 0.05 ug/L. Since EDB is a known carcinogen with a CAL/EPA Cancer Potency Factor as Drinking Water (10^{-6}) of 0.0097 ug/L, provide the rationale for using this interim concentration value for the time-critical removal action. If the proposed concentration is reached, how much does this groundwater removal action reduce the risk to human health and the environment, considering that the Navy has also identified:</p> <ul style="list-style-type: none">• Acetone to 68,400 ug/L;• Benzene to 70,400 ug/L;• Methyl Ethyl Ketone (MEK) to 75,400 ug/L; and• Methyl Isobutyl Ketone (MIBK) to 3,560 ug/L?	<p>The removal actions were also intended to provide an opportunity to collect information pertaining to aquifer characteristics, and this information will be used in the development and evaluation of alternatives for the final remedy.</p> <p>The removal of contaminant mass from the groundwater during the implementation of the time-critical removal actions reduces the potential risk of exposure of human populations and animals to hazardous substances in a potential drinking water source and reduces the potential for migration of hazardous substances from the site. The proposed interim concentration value and the proposed limit of a specific quantity of extracted groundwater were identified to establish the endpoint for the interim response actions.</p> <p>The information collected during the implementation of the time-critical removal actions will be used during the development of the revised FS, the Proposed Plan, and the Record of Decision.</p>

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Comment	Response
<p>Specific Comment 2. Section V.A.4. Engineering Evaluation/Cost Analysis (EE/CA) text only says "Not Applicable". Provide an explanation that clarifies how the decision was made to say that an EE/CA is, or is not, applicable, and reference the location in the CERCLA text that the Navy provided to the RWQCB. The need for an EE/CA was a RWQCB comment on 10 October 2000.</p>	<p>Response: Title 40 of the Code of Federal Regulations (CFR), Part 300.415(b)(4) states "Whenever a planning period of at least six months exists before on-site activities must be initiated, and the lead agency determines, based on a site evaluation, that a removal action is appropriate:</p> <p>(i) The lead agency shall conduct an engineering evaluation/cost analysis (EE/CA) or its equivalent. The EE/CA is an analysis of removal alternatives for a site."</p> <p>The Navy collected groundwater samples in late July 2000 and analytical test results for the samples became available in late August 2000. The Navy completed plans for the time-critical removal actions in November 2000, and field work began in early December 2000. A planning period of less than six months existed following the identification of EDB, acetone, MEK, and MIBK near UST Cluster 1, Tank CL-2 and prior to implementation of field work, and consequently, 40CFR300.415(b)(4) does not apply.</p> <p>The prompt implementation of the time-critical removal actions reduces the risk to human health and the environment by removing contaminant mass from a potential drinking water source concurrently with the preparation of the revised FS. The information collected during the implementation of the time-critical removal actions will be considered during the evaluation</p>

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Comment	Response
	<p>of remedial alternatives and the development of cost estimates for remedial alternatives that will be presented in the revised FS.</p> <p>The Navy's responses to RWQCB comments dated 10 October 2000 discuss the requirements of 40 CFR 300 pertaining to documentation for removal actions. Copies of the Navy's responses to RWQCB comments dated 10 October 2000 and 19 October 2000 are attached.</p>
<p>Specific Comment 3. Section V.A.5. states that "Because CERCLA on-site response actions do not require permitting ... approval of, or consultation with, administrative bodies; documentation; reporting; record keeping; and enforcement are not ARARs for CERCLA actions confined to the site." The State Water Resources Control Board's and the Regional Water Quality Control Board's legal position is that CERCLA Sections 14 and 120(a)(4), not CERCLA Section 121 (d), govern the application of state requirements at this facility. Since the site is not listed on the National Priorities List, CERCLA Section 120(a)(4) requires the federal facility to comply with all state laws concerning removal or remedial action, including state laws regarding enforcement.</p>	<p>Response: Comment acknowledged. No changes to the Action Memorandum will be made in response to this comment.</p>
<p>Specific Comment 4. Section V.A.5 also states "Only those state standards that are identified by the state in a timely manner and are more stringent</p>	<p>Response: Comment acknowledged. The Navy has not made a formal request for ARARs from the State of California, and the Navy</p>

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Comment	Response
<p>than federal requirements may be applicable or relevant and appropriate." Currently the Navy has not solicited the state for ARARs. As a courtesy, we have attached the State Water Board requirements for soil and groundwater cleanups that apply to the site.</p>	<p>appreciates the State Water Board requirements that were provided with the RWQCB comments dated 8 January 2001.</p>
<p>Specific Comment 5. This document includes two letters from the RWQCB as Attachment 2. In those letters, we commented on the Navy's Memorandum, Interim Status Report, and Technical Information Package (RWQCB, 10 October 2000) and the Revision 1 of the Work Plan (RWQCB, 19 October 2000). We request that the Navy include formal responses to these comments in Attachment 2, in order to clarify the Navy's rationale for conducting the Time-Critical Removal Action.</p>	<p>Response: The Navy described the rationale for conducting the time-critical removal actions in the text of the Action Memorandum.</p> <p>The Navy has included a copy of the responses to RWQCB comments dated 10 October 2000 and 19 October 2000 as an attachment to these responses to RWQCB comments pertaining to the time-critical removal actions. The responses to RWQCB comments dated 10 October 2000 and 19 October 2000 have been placed in the CERCLA Administrative Record for Crows Landing. The responses to RWQCB comments dated 8 January 2001 will also be placed in the CERCLA Administrative Record for Crows Landing.</p>
	<p>Thank you very much for providing comments.</p>

Attachment:

Navy Responses to RWQCB Comments dated 10 October 2000 and 19 October 2000

RESPONSES TO COMMENTS FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, CENTRAL VALLEY
REGION DATED 10 OCTOBER 2000 AND 19 OCTOBER 2000
Subject: NASA CROWS LANDING FLIGHT FACILITY

Comment	Response
<p>Comments prepared by James Barton, California Regional Water Quality Control Board, Central Valley Region dated 19 October 2000</p> <p>Subject: Soil Vapor Extraction Optimization For The Remediation of UST Cluster 1 and Site Verification Activities At Various Sites</p> <p>Addressee: Marianna Potacka, Base Realignment and Closure (BRAC) Environmental Coordinator</p>	
<p>We have reviewed <i>Soil Vapor Extraction Optimization for Remediation of UST Cluster 1 and Site Verification Activities at Various Sites Work Plans, Revision 1, NASA Crows Landing Flight Facility (Rev 1)</i>, received on 10 October 2000. Rev 1 includes, in addition to the previously reviewed <i>Soil Vapor Extraction Optimization for Remediation of UST Cluster 1 and Site Verification Activities at Various Sites Work Plans (Rev 0)</i>, the new Appendix H, which contains attachments numbered from one to seven for the seven work plans proposed for site verification activities.</p> <p>Attachments include the following:</p> <ol style="list-style-type: none">1) Abandonment and Closure of Wells;2) Site 11 Geophysical Survey (landfill);3) Underground Storage Tank Cluster 1 Aquifer Testing (CL1);4) Sewer Line Survey;5) UST Cluster 2 Soil Vapor Extraction Testing (CL2);6) Baseline Groundwater Verification Sampling and Analysis Work Plan;7) Underground Storage Tank 109 Active Biovent Treatment Method Testing.	<p>The Navy appreciates the participation of the RWQCB in the expedited review of this planning document. Additionally, the Navy appreciates the information provided during the development of the planning document by the RWQCB during conference calls and at project managers' meetings.</p>

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Comment	Response
<p>The Navy has expanded on previous work conducted at the facility in order to fully characterize contamination at six sites by filling data gaps. The new Rev 1 work plan for the seventh site (attachment 1) consists of decommissioning four wells: an agricultural and a water supply well, each of which might provide a conduit for contaminants from the shallow aquifer to the deeper aquifer by grouting; and two previously abandoned (grouted) but not decommissioned water wells (surface completions to be removed) at the landfill.</p>	
<p>General Comments:</p> <p>1. We commented on certain aspects related to Attachments 3 and 6 during our review of the three informational documents that preceded this work plan (Rev 1). Please refer to Regional Water Quality Control Board (RWQCB) letter dated 10 October 2000, which commented on the Memorandum dated 11 August 2000; Interim Status Report dated 17 August 2000; and Technical Information Package dated 27 September 2000, and provide changes to Rev 1 in response to these RWQCB prior comments. If the Navy decides to expand the groundwater removal action and seek disposal of groundwater to land or surface water, then addressing the RWQCB permitting comment in a timely fashion will become essential to avoid delays due to the permitting process.</p>	<p>The Navy has prepared responses to the RWQCB letter dated October 10, 2000. The responses to those comments are included with these. The response to Specific Comment 4 of the RWQCB letter dated October 10, 2000 addresses management of extracted groundwater.</p>
<p>2. Several new Contaminants of Concern (COCs) have been detected in groundwater at the site. Action levels have not been determined for the new COCs in Rev 1. Since several of the COCs have extremely low Water Quality Goals in relationship to their concentrations in groundwater, cleanup levels will need to be established for the new COCs as well as in the Feasibility Study (FS) and Record of Decision (ROD).</p>	<p>The Navy is preparing to revise the Revised Draft Final Feasibility Study (FS) Report for Site 17 in order to discuss the recently identified chemicals of concern, to identify proposed cleanup levels, to discuss potential and/or planned interim response actions, and to present potential remedial alternatives for the commingled plume that includes the releases from Site 17, Underground Storage Tank (UST) Cluster 1, and UST 117.</p>

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Comment	Response
<p>Specific Comments</p> <p>Attachment 3 Underground Storage Tank Cluster 1 Aquifer Testing:</p> <p>1. Section 2.5 Well Installation states that the extraction well ".....will be installed at the location thought most productive and most impacted by petroleum hydrocarbons." Since the Navy has recently discovered the following additional solvents and components of petroleum hydrocarbons at CL1, specifically:</p> <ul style="list-style-type: none"> • Acetone to 68,400 ug/L; • Benzene to 70,400 ug/L; • Ethylene Dibromide to 5080 ug/L; • Methyl Ethyl Ketone (MEK) to 75,400 ug/L; and • Methyl Isobutyl Ketone (MIBK, reported as 4-methyl-2-pentanone) to 3560 ug/L, <p>The Navy should consider the monitoring well locations of the highest sample concentrations of these previously unknown COCs in groundwater when locating the extraction well(s).</p>	<p>The Navy will conduct aquifer tests at existing wells prior to siting and installing the extraction well(s), and the Navy will consider the concentrations of the recently identified chemicals of concern prior to siting and installing the extraction well(s). The text was modified to indicate that concentrations of petroleum hydrocarbons and volatile organic compounds would be considered in siting the extraction well(s).</p>
<p>2. Sections 2.5-2.7 describes the design and installation of the extraction well. Section 1.2 states that the goal is to remediate the uppermost portion ("groundwater interface") of the aquifer near the water table for petroleum hydrocarbons, or Light Non-aqueous Phase Liquids (LNAPLs). Again, we suggest that the Navy also consider all of the new COCs, which also include Dense Non-aqueous Phase Liquids (DNAPLs), when designing and installing the extraction well.</p>	<p>The Navy will evaluate the data collected during the July 2000 sampling event, data generated during aquifer testing at existing wells, as well as previously collected data, and the Navy will consider the recently identified chemicals of concern prior to siting and installing the extraction well(s). The text was modified to indicate that concentrations of petroleum hydrocarbons and volatile organic compounds would be considered in siting and designing the extraction well(s).</p>
<p>3. Section 3 Waste Management states "The remaining waste streams (including untreated, extracted groundwater) will be characterized and disposed of as described in Section 3.0 of Work Plan." This is confusing, since this reference to the "Work Plan" appears to describe the previously reviewed (and included within Rev 1) Rev 0, Section 3.0 which does not contain text related to containerizing a large volume of untreated groundwater into Baker tanks. The Rev 1, Appendix H, Attachment 3, Section 2.7 describes this activity, specifically that the</p>	<p>This response is intended to provide an expanded explanation of planned waste management activities associated with the extraction of groundwater as described in Attachment 3.</p> <p>The last sentence in Section 3.0 of Attachment 3 does refers to Section 3.0 of the Work Plan. Section 3.0 of the Work Plan identifies the procedures and requirements for characterizing and disposing of wastes. Section 3.0 of the Work Plan refers to the Sampling and</p>

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Comment	Response
<p>untreated, extracted groundwater will be stored in Baker tanks until the water is transferred into, and transported by, a tanker truck to a waste facility. Reference Rev 1, Appendix H, Attachment 3, Section 2.7 for this activity in the same attachment's 3.0 text, not Rev 0, Section 3.0.</p>	<p>Analysis Plan for the specific field sampling and analytical testing procedures. The procedures identified in Section 3.0 of the Work Plan will be used to characterize the waste stream and to determine the appropriate disposal strategy for the containerized groundwater generated from the aquifer testing described in Section 2.7 of Attachment 3.</p> <p>Section 2.7 of the attachment discusses the storage and management of storage units for extracted groundwater generated during the aquifer testing activities.</p>
<p>Attachment 6 Basewide Groundwater Verification Sampling and Analysis Work Plan:</p> <p>4. Section 1.0, the Introduction and following text state that the Navy will conduct semi-annual groundwater sampling at Crows Landing. We feel that quarterly sampling is more appropriate to characterize the lateral extent and concentrations of COCs, considering the large list of new COCs found recently in groundwater from a limited number of monitoring wells. The Navy should change this work plan to reflect quarterly groundwater monitoring for all COCs until adequate data is collected to warrant the Navy requesting a revision to the sampling frequency.</p>	<p>The work plan was modified to indicate that quarterly monitoring activities will be conducted for four consecutive quarters. During the fourth quarterly sampling period, the Navy proposes to evaluate the adequacy of the groundwater data and to revisit the sampling frequency with the RWQCB with the goal of optimizing the sampling frequency.</p>

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REGION DATED 10 OCTOBER 2000 AND 19 OCTOBER 2000
Subject: NASA CROWS LANDING FLIGHT FACILITY

Comment	Response
<p>Comments prepared by James Barton, California Regional Water Quality Control Board, Central Valley Region dated 10 October 2000</p> <p>Subject: Various Transmittals from Southwest Division, Naval Facilities Engineering Command that were issued during August and September 2000</p> <p>Addressee: Marianna Potacka, Base Realignment and Closure (BRAC) Environmental Coordinator</p>	
<p>We have reviewed the following three related documents presented by the U. S. Navy Southwest Division (Navy):</p> <p>Potential Revised Groundwater Remediation Strategy for the Administration Area Plume and Other Plumes, NASA Crows Landing Flight Facility (Memo), dated 11 August 2000; September 2000 Interim Status Report (Status Report), dated 17 August 2000; and Technical Information Package (Data Package), July 2000 Groundwater Sampling Activities, National Aeronautics and Space Administration (NASA), Crows Landing Flight Facility, Crows Landing, California, dated 27 September 2000.</p> <p>The Memo proposes strategies to continue investigation and conduct interim response actions, namely construct an extraction well/groundwater treatment system for the mixed hydrocarbon/solvent plume and decommission abandoned irrigation wells. The Status Report provides a chronology of past and proposed future (interim response actions) investigative activities for sites 11 (landfill), Underground Storage Tank (UST) 117, UST 109, UST Clusters 1 (CL1) and 2 (CL2), sewers, abandoned irrigation wells, and automated water</p>	<p>The Navy appreciates the review of the Memo, the Status Report, and the Data Package by the RWQCB.</p>

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Comment	Response
<p>level measurement for one or two monitoring wells (datalogger). The Data Package provides provides a table of results and a raw data report of groundwater analyses from the July 2000 groundwater sampling event, which analyzed Volatile Organic Compounds (VOCs), Total Petroleum Hydrocarbons (TPH) and metals from monitoring wells at UST Sites 117 and CL1. The data package also includes a drawing with the proposed location of the extraction well, the two plumes (117 and CL1) that now appear to be commingled, and a table of well screen intervals. During a conference call on September 26, 2000, the Navy discussed the Memo, Status Report, and the Data Package that we received the following day. The Navy has discovered high levels of previously unknown contaminants of concern (COCs) in groundwater: Acetone to 68,400 ug/L, Benzene to 70,400 ug/L, Ethylene Dibromide (EDB) to 5080, Methyl Ethyl Ketone (MEK) to 75,400 ug/L, and Methyl Isobutyl Ketone (MIBK reported as 4-methyl-2-pentanone) to 3560 ug/L. Previously carbon tetrachloride (CT) was considered the primary COC at 131 ug/L. Methyl t-butyl ether (MTBE) was not detected in groundwater.</p>	
<p>Specific Comments. 1. The Data Package drawing (sketch) shows the extraction well located closer to monitoring well CL1-MW-03, which provided the highest CT concentration, than to CL1-MW-12S, which has higher concentrations of the new COCs. As stated in our introduction, CT was considered the primary COC before discovery of the additional COCs in July 2000. We suggest that a pump test be conducted using the existing monitoring wells, prior to placing the extraction well(s), in order to optimize placement of the extraction well(s).</p>	<p>The comment has been incorporated into the procedures presented in the <i>Soil Vapor Extraction Optimization for Remediation of UST Cluster 1 and Site Verification Activities at Various Sites Work Plans, Revision 1, NASA Crows Landing Flight Facility</i> dated October 2000. The work plans state that tests will be conducted at existing wells prior to siting and installing the extraction well(s).</p>
<p>2. We believe that the proposed interim response action is a removal action due to the scope of the project, and since installing a pump and treat system will remediate the hydrocarbon/solvent plume. A removal action requires a Workplan that contains the basic elements of an Environmental Evaluation/Cost Analysis (EE/CA) and an Action Memorandum for public comment.</p>	<p>The Navy concurs that the proposed interim response action could be considered a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) removal action or a pilot testing activity for the evaluation of groundwater extraction as a remedial alternative. The Navy would comply with the applicable requirements of the National Contingency Plan (NCP) as described in Title 40, Code of Federal</p>

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Comment	Response
	Regulations, Part 300.400 – Hazardous Substance Response – if a CERCLA removal action is implemented.
<p>3. The CL1 plume can no longer be considered a petroleum-only groundwater plume, since high levels of solvents are commingled within the plume. All decision documents and remediation of the commingled plume must meet all CERCLA requirements.</p>	<p>The Navy concurs that the plume is commingled, containing petroleum hydrocarbons and solvents, and that CERCLA removal actions and the associated documentation should comply with the applicable sections of the NCP.</p>
<p>4. We encourage the Navy to submit a Report of Waste Discharge for our review as soon as practicable. This will allow us sufficient time to draft and adopt any necessary permits, so that the implementation of the project (specifically, operation of the treatment system) is not delayed while the necessary permits are being obtained. Depending upon the option that the Navy chooses, either an NPDES permit for discharge to surface water, or a Waste Discharge Requirement permit for discharge to land are necessary before treated groundwater may be discharged to water or land.</p>	<p>The Navy will work with the RWQCB in order to identify the most efficient and effective strategy for management of extracted groundwater that is treated on-site. The Navy will comply with the substantive requirements of applicable permits that pertain to the management, treatment, and/or disposal of groundwater that is extracted from the contaminant plume. The Navy does not plan to treat the extracted groundwater on-site during the implementation of the planned interim response action.</p>

TRANSMITTAL

Date: 26 Jan 2001

From: Lynn Marie Hornecker *AMH*

To: Diane Silva
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