



DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132-5190

N30519_000279
NFD POINT MOLATE
SSIC NO. 5090.3.A

5090
Ser 06CM.MS/0239
March 5, 2001

Ms. Adriana Constantinescu
Project Manager
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Constantinescu:

Subj: RESPONSE TO COMMENTS ON THE DRAFT SITE 4 FIELD WORK PLAN, NAVAL
FUEL DEPOT POINT MOLATE

Enclosed is the Response to Comments on the Site 4 Draft Field Work Plan for NFD Point Molate. This document has also been provided to Mr. Kent Kitchingman of the City of Richmond. A Site 4 Draft Final Field Work Plan will be sent to you and Mr. Kitchingman the week of March 12, 2001. Please review the Site 4 Draft Final Field Work Plan to confirm that the issues in the Response to Comments have been addressed. Resolution of these comments is to be conducted the week of April 3, 2001. Contact Ms. Michelle Gallice Sondrup at (619) 532-0971, if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Faiq Aljabi".

FAIQ ALJABI
Environmental Baseline Team Leader
By direction of the Commander

Encl: (1) Response to Comments on the Draft Site 4 Field Work Plan, Naval Fuel Depot (NFD),
Point Molate
(2) Site 4 Draft Final Field Work Plan, NFD Point Molate - to be sent the week of
March 12, 2001

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Copy to:
Mr. Kent Kitchingman (1 copy)
City of Richmond
330 25th Street
Richmond, CA 94804

Jim Knight (letter only)
Tetra Tech EM Inc.
1099 18th Street
Suite 1960
Denver, CO 80202

Brian Schuller (letter only)
Tetra Tech EM Inc.
4940 Pearl East Circle, Suite 100
Boulder, CO 80301

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Blind copy to:
04MG.DS (Administrative Record) – 3 copies of Response to Comments only
Chron File
Read File

Writer: M. Sondrup, Code 06CM.MS, 2-0971
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FIA
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[Signature]



Tetra Tech EM Inc.

135 Main Street, Suite 1800 ♦ San Francisco, CA 94105 ♦ (415) 543-4880 ♦ FAX (415) 543-5480

March 2, 2001

Ms. Michelle Gallice-Sondrup (Code 06CMMS)
Remedial Project Manager
Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101-8517

**Subject: Responses to Comments on the Internal Draft Field Work Plan for the Screening Level Human Health and Ecological Risk Evaluation – Installation Restoration Site 4 at Naval Fuel Depot Point Molate, Richmond, California
CLEAN II Contract No. N62474-94-D-7609, Contract Task Order 384**

Dear Ms. Gallice-Sondrup:

Enclosed are the responses to comments on the internal draft field work plan for the screening level human health and ecological risk evaluation for the installation restoration (IR) Site 4 for Contract Task Order (CTO) 384. Comments that were received from the Regional Water Quality Control Board and the City of Richmond are addressed in this document.

If you have any questions, please call me at (303) 312-8853.

Sincerely,

James W. Knight
Project Manager

JWK/rkr

Enclosures

cc: SWDIV General File(1 copy + 1 enclosure)
B. Schuller, TtEMI (1 copy + 1 enclosure)
File

**RESPONSES TO COMMENTS ON THE
INTERNAL DRAFT FIELD WORK PLAN
SCREENING LEVEL HUMAN HEALTH AND ECOLOGICAL RISK EVALUATION
INSTALLATION RESTORATION SITE 4, NAVAL FUEL DEPOT POINT MOLATE**

This document presents the Navy's response to comments received from the San Francisco Bay Regional Water Quality Control Board (RWQCB) and the City of Richmond on the Internal Draft Field Work Plan, Screening Level Human Health and Ecological Risk Evaluation, Installation Restoration Site 4, for Naval Fuel Depot (NFD) Point Molate, dated November 17, 2000. Comments were received from Ms. Linda Dorn of RWQCB on January 3, 2001. Comments were also received from Mr. Kent Kitchingman of the City of Richmond in a memorandum dated January 26, 2001.

RESPONSES TO RWQCB COMMENTS

Comment 1: Section 1.2 Technical Approach: Why are there only two rounds of groundwater samples planned for in this work plan? Is this enough to support a screening level risk evaluation for Site 4?

Response: The majority of the groundwater samples will be collected from existing wells that have already been sampled. Sample results for the new wells will be compared with results for samples from nearby groundwater wells that were eliminated during the pipeline removal process. The combination of past and new data will provide sufficient information for the screening level risk evaluation. However, it is possible that recommendations resulting from the risk evaluation may include the need for additional rounds of groundwater sampling.

Comment 2: Section 1.2.1, Prepare Field Work Plan: Because of this review of the internal draft FWP, there will be no draft version of this work plan. The next version will be a final.

Response: The Internal Draft Site 4 Work Plan was reviewed by the regulatory agencies; therefore, a draft version of this work plan will not be prepared. A final version of this work plan will be available in the spring and will address all comments.

Comment 3: Section 1.2.2 Conduct Field Sampling: Existing groundwater wells that have not been sampled within three years, should be redeveloped.

Response: We concur with this comment. All wells that have not been sampled within the past 3 years will be redeveloped before the new sampling round begins.

Comment 4: Section 2.1.4, Hydrogeology: The opening sentence should state that the water table is in hydraulic communication with San Francisco Bay in all locations.

Response: Based on data collected during previous sampling events, not all groundwater at Site 4 is in direct hydraulic communication with the bay. During pre-sample purging, some wells show low salinity and low yield; groundwater in these wells is believed to be isolated from the bay. Other wells show high salinity and high yield and are clearly in contact with the bay. This variability in hydraulic communication with the bay will be further described in the Final Site 4 Field Work Plan.

Comment 5: Section 3.1, Site 4 Background: The drum filling plant and inactive, aboveground, primary fuel pumping station and pipeline valves within the drum lot should be shown on Plate 1.

Response: The features noted will be included on the plate for the Drum Lot 1 area in the Final Site 4 Field Work Plan. Individual plates for each specific area (North Shoreline, South Shoreline, and Drum Lot 1) will also be added to the Final Site 4 Field Work Plan.

Comment 6: Section 3.2, 1998 Pipeline Removal: Information should be added to this subsection that identifies how much soil was removed during the pipeline removals and the concentrations that remain following the removal.

Response: More detail on the 1998 pipeline removal will be added to Section 3.2 in the Final Site 4 Field Work Plan. Information will include how much soil was removed and contaminant concentrations that remain.

Comment 7: Section 3.2, 1998-2000 Phase II RI: It is stated that several new wells were installed during the Phase II RI. These new wells should be identified in the text.

Response: All wells that were installed during the Phase II remedial investigation (RI) will be added to the appropriate plate for a specific area (that is, the North Shoreline, South Shoreline, or Drum Lot 1) and will be discussed in Section 3.2.

Comment 8: Section 3.2, 1999-2000 Basewide Pipeline Removal: It is stated “construction work associated with the pipeline removal also focused on excavation of localized, visibly contaminated soils from beneath the pipelines.” How much soil was removed from beneath the pipelines? Also provide an idea of the source removal.

Response: More detail on the basewide pipeline removal conducted during 1999 and 2000 will be added to Section 3.2. This discussion will focus on contaminated soils beneath the pipelines, including the amount of soil removed during the project.

Comment 9: Section 3.3, Summary and Recommendations From Previous Investigations: In support of the discussion on the North Shoreline Area, the South Shoreline Area, and Drum Lot No. 1, provide a plate that shows all concentrations and cross-sections.

Response: All data evaluated for Site 4 will be discussed in Section 3.3 in the Final Site 4 Field Work Plan and will be presented in supporting tables and plates. Because of the large amount of data collected at Site 4, information presented on the plates will focus on sample points that exhibit a complete exposure pathway and where contaminants were detected at concentrations that exceed fuel product action levels (FPAL). All data used to evaluate sampling locations is provided in the accompanying tables that support the text.

Comment 10: Section 3.3, Summary and Recommendations From Previous Investigations, North Shoreline Area: The statement “contaminant levels have likely decreased since 1992 as a result of natural attenuation since base closure” needs to be supported with actual data or at least with supporting references.

Response: Because the sources were eliminated as a result of operational closure in 1995 and pipeline removals in 1999 and 2000, and because natural attenuation was observed in various areas of the site, it is likely that natural attenuation is occurring at Site 4. However, it is also agreed that further data collection is necessary to support this statement; therefore, a sentence will be added to the text that additional data collection is necessary to support the occurrence of natural attenuation.

Comment 11: Section 3.3, Summary and Recommendations From Previous Investigations, North Shoreline Area: The referenced fire training pit in relation to MW 11-05 needs to be shown on a plate.

Response: The referenced “fire training pit” near monitoring well MW 11-05 will be added to the North Shoreline plate in the Final Site 4 Field Work Plan.

Comment 12: Section 3.3, Summary and Recommendations From Previous Investigations, South Shoreline Area: It is stated that “groundwater monitoring wells should be installed as replacements

for MW 10-03, MW 10-18, and ERM 10-01.” Identify when these wells were removed and identify all wells on the appropriate plate.

Response: Text will be added to Section 3.3 to indicate that wells MW 10-03, MW 10-18, and ERM 10-01 were removed during the basewide pipeline removal from the South Shoreline area. Based on further data evaluation in the underground storage tank (UST) program, wells MW 10-03 and MW 10-18 will not be replaced as a part of the Site 4 investigation because the area will be addressed in the Corrective Action Plan (CAP). This decision will be discussed in the text. A replacement well will be installed near well ERM 10-01. All wells (proposed, existing, and removed) will be clearly delineated on the plate for the South Shoreline in the Final Site 4 Field Work Plan.

Comment 13: Section 3.3, Summary and Recommendations From Previous Investigations, South Shoreline Area: It is stated that “two soil samples (one from each sampling zone depth) will be collected from each of the three new monitoring well boreholes.” Collecting two samples from each borehole does not seem necessary for this sampling strategy.

Response: Because of the variation in soil depth intervals among exposure pathways (for example, the recreational, maintenance worker, and ecological receptor pathways), it is important for the risk screening process that a shallow and deep soil sample be collected at all locations, including the new monitoring well boreholes.

Comment 14: Section 3.3, Summary and Recommendations From Previous Investigations, Drum Lot 1: It is unclear where SB 10-03 is located. Describe location and make sure the sample point is identified on the template.

Response: The location of boring SB 10-03 will be clarified in the text (Section 3.3) and on the appropriate plate in the Final Site 4 Field Work Plan.

Comment 15: Section 3.3, Summary and Recommendations From Previous Investigations, Drum Lot 1: When it is stated that a sample will be between 3 and 10 feet bgs [below ground surface], it is unclear where the sample will be taken within that range.

Response: A composite sample will be collected between 5 and 10 feet below ground surface (bgs) so that this depth interval can be used for the maintenance worker risk evaluation. The maintenance worker scenario includes potential risks to a construction worker or utility worker as well.

Comment 16: Section 3.3, Summary and Recommendations From Previous Investigations, Drum Lot 1: Analyzing only along the shoreline will not give any clue to other areas of the Drum Lot where wastes were handled historically. The selection process for sample locations in Drum Lot 1 may need to be reconsidered before the field work begins.

Response: Before the Final Site 4 Field Work Plan is completed, all proposed sample locations will be re-evaluated. The re-evaluation will ensure that areas where wastes were handled historically are well represented in the sampling scheme. Details on the selection process will be presented in Section 3.3 and all proposed sample locations will be clearly delineated on the plate for Drum Lot 1.

Comment 17: Section 4.1 Field Investigation: It is stated that soil samples will be analyzed for TPH-p [total petroleum hydrocarbons (TPH) purgeable], TPH-e [TPH-extractable], and PAHs [polynuclear aromatic hydrocarbons]. Although it may make sense to not sample for VOCs in some areas, it is recommended that VOCs be included in the sample analysis for the deeper soils (3-10 feet) in areas with known or suspected VOC contamination in groundwater.

Response: We concur that soil samples should include analysis for volatile organic compounds (VOCs) in areas with known VOC contamination. However, because of the variation in soil depth intervals among exposure pathways, it is important for the risk screening process that a shallow (0 to 3 feet) and deep (5 to 10 feet) soil sample be collected at each of these sample locations. Sample

locations selected for analysis of VOCs will be discussed in Section 4.1 of the Final Site 4 Field Work Plan.

RESPONSES TO CITY OF RICHMOND COMMENTS

Comment 1: Section 3.3, Summary and Recommendations from Previous Investigations: Where significant contamination has occurred in the past, provide a discussion on the source of the contamination and the transport scenario.

Response: Section 3.3 will be expanded to include more detail on the source of contamination and the associated transport mechanism for areas where significant contamination has occurred in the past.

Comment 2: Section 3.3, Summary and Recommendations from Previous Investigations: Explain why, according to Plate 1, no soil and groundwater samples were collected in the northernmost corner of the North Shoreline (north of 11-02, where the highest levels of TPH were measured). Also explain why no new samples are being proposed for this area.

Response: No new samples are being proposed for the area north of 11-02 because (1) detections have been isolated and are outside the boundary of Site 4; (2) this area will be evaluated in the CAP; and (3) results of a recent Environmental Baseline Survey (EBS) suggest that contamination is minimal in this area. Further discussion on why no additional samples will be collected in the area north of 11-02 will be included in the Final Site 4 Field Work Plan and the CAP. Relevant historical information will also be presented on a plate for the North Shoreline.

Comment 3: Section 3.3, Summary and Recommendations from Previous Investigations: Explain why no groundwater monitoring wells are proposed for the southern area of Drum Lot 1, between MW 11-85 and the new MW 10-20.

Response: The sampling strategy for Drum Lot 1 will be reexamined before the Final Site 4 Field Work Plan is developed. The Navy will consider the addition of a well between wells MW 11-85 and MW 10-20 as recommended in this comment. If this well is added as a sample location, rationale for its addition will be discussed in Section 3.3.

Comment 4: Section 3.3, Summary and Recommendations from Previous Investigations: Explain why, if the highest soil contaminant level measured in Drum Lot 1 is found at 12.5 feet, why new samples are being collected between 0-10 feet.

Response: The three exposure pathways of concern are all between 0 and 10 feet in Drum Lot 1. The following pathways are included in Site 4: the recreator (0 to 2 feet), the maintenance worker (0 to 10 feet), and the ecological receptor (0 to 3 feet). The high concentration at 12.5 feet results in part from the lack of data for shallower depths at this location. Therefore, it is expected that samples at shallower depths will adequately represent the concentrations in soil for potentially complete pathways in this area.

Comment 5: Plate No. 1: Plate 1 does not contain some information that is pertinent to reviewing the document including: The pipeline removal area where subsurface soil contamination was observed, and no additional sampling is planned based on those observations.

Response: We concur with this comment. The Final Site 4 Field Work Plan will include additional plates for the North Shoreline, South Shoreline, and Drum Lot 1 areas. These plates will provide more detailed information on the pipeline removals associated with each area and will clearly present locations where additional sampling is recommended for each area.

Comment 6: Plate No. 1: Plate 1 does not contain some information that is pertinent to reviewing the document including: Sources of contamination.

Response: The Final Site 4 Field Work Plan will include additional discussion on contaminant sources and the plates for the North Shoreline, South Shoreline, and Drum Lot 1 will provide this information.

Comment 7: **Plate No. 1:** Plate 1 does not contain some information that is pertinent to reviewing the document including: North shoreline – MW 11-07 and EX 11-46, which are discussed in the text but not shown; and the new soil sample to be collected near MW 11-05.

Response: Monitoring well MW 11-07 is within Site 3 and has no direct relationship to areas of concern in Site 4; therefore, this sample point will not be included in the plate for the North Shoreline. Excavation bottom sample EX 11-46 is also outside the boundaries of Site 4; however, this sample will be evaluated as a source since it is directly inland from areas of concern in Site 4. The new soil sample near monitoring well MW 11-05 will be discussed in Section 3.3 and will be added to the North Shoreline figure.

Comment 8: **Plate No. 1:** Plate 1 does not contain some information that is pertinent to reviewing the document including: South shoreline – MW 10-03, MW 10-18, and ERM 10-01, which had the highest levels of diesel and JP-5.

Response: Wells MW 10-03, MW 10-18 and ERM 10-01 will be clearly delineated in the new plate for the South Shoreline so that the plate supports the discussion in Section 3.3.

Comment 9: **Section 5.1.1:** What criteria does the field sampling team use for selecting where the MS/MSD samples will be collected?

Response: The following will be added to Section 5.1.1: “MS/MSD [matrix spike and matrix spike duplicates] samples will be selected by the field team leader. The field team leader will use best professional judgment and select a location where soil volume is adequate and there are no obvious signs of contamination (to prevent further interference when spiked). This type of sample will be collected every twentieth sample (or at a frequency of 5 percent).”

Comment 10: **Appendix A, 4.1:** Explain why soil duplicate data showing the overall variability (from heterogeneity as well as measurement variation) is not useful in interpreting results.

Response: The U.S. Environmental Protection Agency (EPA) has concluded that a truly homogenous soil duplicate sample cannot be collected (EPA 1999). Therefore, duplicate data for soil does not have value in showing heterogeneity or variability in measurement and, therefore, will not be included in the sampling strategy.

Comment 11: **Appendix B, D1:** The data validation section should discuss how the results of data validation (both the total and cursory validations) will be presented to the data user and how they will be considered by the user (i.e., how are the data quality issues flagged and presented so they can be used). It should also describe how laboratory case narratives are used in interpreting data.

Response: The results of the validation will be presented to the user by describing validation qualifiers that are added to the data set received from the laboratory. Qualified and estimated data are useful, rejected data are not. Validators will use all components of the data package received from the laboratory to qualify the data. The text in Appendix B, D1 will be expanded to include this information.

Comment 12: **Appendix B, D1:** The data validation section should also describe how the pertinent field observations will be presented to users. It is useful to have a field case narrative to summarize the items that the data user should consider in making decisions, rather than expect data users to review all the field data sheets.

Response: We concur with this comment. Field observations will be presented by providing a summary of field observations in the final report.

Comment 13: Appendix B, D2: Reconciliation with data quality objectives discusses assessment of data against the overall project goals, but should add that the data set PARCC parameters will be compared against their respective goals.

Response: We concur with this comment. Data set precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters will be compared against the goals in the final report.

Comment 14: General Comment: The work plan should have a table of the action levels for each media and contaminant or groups of contaminants, including the numeric action level and the source (FPALDR [fuel product action level development report], PRGs [preliminary remediation goals] for residential, etc.).

Response: A table with action levels will be added to the Final Site 4 Field Work Plan. Because the action levels are still pending, a footnote will be added to the table that states that some action levels may change before the risk evaluation process begins.

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NFD POINT MOLATE
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ENCLOSURE 2

INTERIM FINAL FIELD WORK PLAN
SCREENING LEVEL HUMAN HEALTH AND
ECOLOGICAL RISK EVALUATION
INSTALLATION RESTORATION SITE 4

DATED 20 MARCH 2001

THIS RECORD IS ENTERED IN THE DATABASE AND FILED AS

RECORD NO. N30519_000319