

# JACOBS ENGINEERING GROUP INC.

## MEMORANDUM

**TO:** Larry Nuzum, RPM  
Southwest Division/San Diego

**DATE:** 22 February 1991

**FROM:** Edward Rogan/CH2M HILL

**SUBJECT:** Subcontract No. 01-F000-89-0002  
Navy CLEAN - Southwest Division  
CONTRACT TASK ORDER #0018  
Summary of Project Managers Meetings

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Project managers meetings for the RI/FS at MCAS El Toro were held on 22 and 23 January 1991. A supplemental meeting with the RWQCB was held on 24 January 1991. A list of the attendees for each of the days is attached. These minutes (prepared by CH2M HILL and reviewed by the Navy) present the major points of discussion and agreements reached during the meetings.

### **Tuesday, 22 January 1991**

Larry Nuzum (Navy RPM) and Ed Rogan (CH2M HILL PJM) opened the meeting by stating its purpose which was to discuss the agency comments on the RI/FS Work Plan (WP) and Sampling and Analysis Plan (SAP) and to specifically discuss risk assessment, QAPP, and landfill concerns.

Ken Williams (RWQCB) said that the landfill discussion planned for tomorrow's meeting would need to be postponed since the RWQCB's landfill specialist cannot attend. Ed Rogan said that the schedule for the WP and SAP is very tight and requires that the landfill discussion be held this week. (Note: Arrangements were later made to hold this meeting on 24 January to accommodate the pressing schedule for the production of the WP and SAP documents.)

Mike Arends (CH2M HILL) presented some general changes/additions to the planned work since the November RPM meetings. The following were mentioned:

- o At each of the proposed deep borings within or adjacent to the suspected source area, a total of eight soil samples will be analyzed. Five of these samples will be at depths of 5, 10, 15, 20, 25 feet below the source; one sample will be within 30 feet of groundwater; and two samples will be in the intervening depth.
- o At each location where previously a surface water or sediment sample were proposed, both are now planned.
- o Where feasible, sediment samples will be collected for analysis at depths of 0-6 inches and 18-24 inches. A 4-foot sample will be collected for analysis if field instruments and/or observations indicate the presence of contaminants.

- o The shallow soil samples proposed previously for 2.5 and 5 foot depths will be revised to the same depths as the sediment samples described above. Samples at depths of 0-6 inches and 18-24 inches will be collected for analysis, with the option of collecting a 4-foot sample for analysis if warranted by field instruments and/or observations.
- o A review of the Initial Assessment Report by Brown and Caldwell revealed that there is an additional area of concern at Site 7 (Drop Tank Area No. 2) south of the area currently planned for investigation. (This area was dropped for unknown reasons by JMM from their proposed investigation and was not included in the draft RI/FS WP). This area had spills of petroleum hydrocarbons and had been sprayed with petroleum hydrocarbons and solvents for dust control. Additional wells and soil sampling will be presented in the revised RI/FS WP to include investigation of this area.
- o Dioxin analyses will be performed at Sites 1, 3, 5, 9, and 16 where burning of wastes has occurred. (Note: Further discussion during the meeting added Site 2 to this list.) Three soil samples per site will be analyzed for dioxin: one at the surface (0-6 inches), one below the suspected source, and one within 30 feet of groundwater. No groundwater samples will be analyzed for dioxin.
- o Downgradient wells will be installed under Phase I to assess the front edge of the plume. The number and location of these wells was not established at the time of the meeting.

Joanna Zinni (CH2M HILL) presented the general approach for the risk assessment portions of the WP. Revisions for these sections are being made in response to the following general types of comments from the agencies:

1. Present a detailed risk assessment workplan.

This section is being expanded to include risk assessment components as given in the guidance, and in a sample workplan outline provided by Gerald Hiatt, Regional Expert Toxicologist for EPA Region IX. Proposed elements of the Phase 1 ecological risk assessment have also been included.

2. Discuss chemicals and exposure pathways of concern on a site-specific basis.

These sections are being revised to include chemicals of concern, toxicity profiles and conceptual exposure models. Conceptual models are being discussed by operable unit (OU); the extent to which they can be developed depends on the amount of data available for sites in each OU.

Selected portions of the workplan were discussed; these have been included as attachments.

(Following the risk assessment presentation, the selected workplan elements and a sample generic exposure pathway diagram were telecopied to Gerald Hiatt, Region IX. EPA, CH2M HILL, and SAIC held a short phone conference with Dr. Hiatt to request that he review and comment on these materials. John Hamill, EPA Region IX, met with Dr. Hiatt on 24 January to discuss risk assessment issues. John relayed Dr. Hiatt's comments by telephone to Joanna Zinni on 25 January. Overall, there were no major

comments, but some clarifications were requested and are being addressed in the workplan.)

A discussion of the WP comments and responses followed. John Hamill (EPA) said that in general EPA was very pleased with the additional Phase I work planned for MCAS El Toro. He said that most of the remaining comments are minor in nature and should not have significant impacts on the progress of the project.

Sebastian Tindall (SAIC) asked why the 18-24 inch depth interval was selected rather than something like 12-15 inches. CH2M HILL responded that it was professional judgment to use this interval for assessing root uptake. A depth of 18-24 inches will also provide a better chance of detecting volatiles than a shallower depth interval. The proposed depth of 18-24 inches was accepted.

Sebastian asked if the comment on Section 3.1, page 50 of the WP, about a 15-foot sample (i.e., at the typical maximum excavation depth for building foundations) was being dealt with. CH2M HILL said that the deep boring at each site will have a sample collected for analysis at a depth of 15 feet.

John Dolegowski (CH2M HILL) presented the planned approach for surface water sampling. During the first storm event, surface water samples will be collected at the start and finish of the event. If a second storm event occurs, a single set of surface water samples collected at the start are proposed for collection.

Sebastian asked if the individual components of brake fluid, hydraulic fluid, etc., should be evaluated by researching available literature and contacting various manufacturers. He said that there may be chemicals in these mixtures that would not be detected by the analyses proposed for MCAS El Toro. CH2M HILL said that indications of the mixtures (and chemicals contained in the mixtures) would be detected by the analyses for petroleum hydrocarbons. At this time, an intensive study of the individual components of the mixture compounds is not planned. The risk assessment effort conducted during Phase I, however, will probably need to include some evaluation of the components of these mixture compounds. This plan was accepted.

Sebastian suggested that the analytical procedure for detecting a specific chemical be added to the table of chemical-specific ARARs. He also suggested that a few statements be added to the WP explaining that an Implementation Plan for costing the RI/FS and performing some of the initial RI tasks (e.g., GPR, aerial photo review, etc.) will begin in late February. These suggestions will be considered.

Larry Nuzum said that the Navy plans to evaluate the construction of the OCWD wells as one of the first tasks in the RI. If acceptable, these wells will be included in the sampling performed under Phase I.

Roy Herndon (OCWD) asked why Geobase was being considered for MCAS El Toro. CH2M HILL responded that EPA was using this data base software. Roy said that OCWD's experience with Geobase has not been very satisfactory.

Larry Nuzum said that the response to comments on the FFA will be addressed separately from this meeting.

**Wednesday, 23 January 1991**

The Wednesday meeting began with some general discussions, followed by some review of individual site sampling schemes, and separate meetings on the SAP comments and the QAPP.

Sebastian asked when the ARARs would be updated and finalized. Ed Rogan said that the finalization of ARARs typically is not possible until the end of the FS for each Operable Unit.

Liz Lafferty (DHS) asked if continuous coring was planned for lithological logging of boreholes. CH2M HILL responded that continuous coring is not planned. Soil obtained from drive samples combined with soil observed from the air percussion drilling will allow good lithologic description of borings. Drive samples will be collected every 10 feet in the deep boring at each site. In addition, each perimeter well at the sites will have drive samples collected according to the following schedule: every 10 feet down to a depth of 60 feet, every 20 feet down to 200 feet, and every 40 feet thereafter.

In discussions of individual sites, the following are some of the key points:

- o Site 2 - Magazine Road Landfill. Dioxin analysis will be added for this site since the IAS report by Brown and Caldwell was somewhat ambiguous as to the waste actually landfilled there. The report says that the "majority" of the wastes were not burned, implying that some waste may have been burned.
- o Site 16 - Crash Crew Pit No. 2. The agencies suggested that the deep boring at this site be drilled inside the large pit if feasible. If not feasible, then they suggested a location at the edge of the pit.

Ken Williams asked what soil sampling below the water table was now planned. John Dolegowski said that one sample below the water table would be analyzed for Total Organic Carbon (TOC) and if headspace readings indicate the presence of volatile organics, then one sample below the water table would also be analyzed for volatiles and semivolatiles.

Liz Lafferty asked if grain size analysis was proposed for screen selection at the wells. CH2M HILL said that this is not proposed for selecting screen slot size for the wells at MCAS El Toro.

Separate meetings/discussions on the QAPP and SAP were then held.

For the QAPP, EPA QAMS reviewer (QAMS/ESAT/ICF, Keith Egan) was contacted by telephone regarding EPA comments since he was not able to attend. The following were agreed upon:

- o The CLP detection limits, accuracy and precision values as presented in EPA CLP statement of work will be appended to QAPP.
- o Sections 6 and 7 comments regarding reference corrections/addition will be incorporated into revised QAPP.
- o Data validation guidelines will follow EPA functional guidelines, EPA reference will be added to data validation section.

- o Internal quality control checks are described in Section 5 of SAP for parameters not covered under CLP. These descriptions are per EPA Region IX specifications. Section 5 will be properly referenced in QAPP.
- o Data assessment following data validation will be limited to precision, accuracy, representativeness and completeness assessment as described in the current version of QAPP, no further discussions will be added to data assessment in view of project needs.

Following the above described phase communication, the QAPP meeting continued with discussion of the following:

- o The QAPP follows EPA Region IX guidelines in the structure and content; the content is also in alignment with Navy standard operating procedures as described by NEESA.
- o QAPP specifies CLP methodology where applicable; for parameters not covered under CLP standard EPA methods along with Region IX SAS descriptions were used. These specifications are also consistent with NEESA requirements.
- o In view of DHS request for lower detection limit for vinyl chloride, the following were highlighted:
  - CLP detection limits are higher than state requirements for some of the volatile organics (state regulations require <1 ppb for four volatile organics).
  - Current applied state of the art is such that data obtained below 1 ppb is of qualitative nature.
  - Regulatory agencies are aware of the limitations; in general practice samples are analyzed above 1 ppb.
  - CLP methodology for volatiles can be modified to obtain lower detection for volatiles (1-2 ppb). This approach will also report detects below 1 ppb with qualification of qualitative usage.
- o For data validation, a percentage of data will be validated in full per EPA functional guidelines. The rest will be reviewed for appropriate method, level of QA/QC effort, and quality control data. Ten percent of the overall data could be proposed to be validated. This percentage will be noted in text.

During discussion of the SAP comments, the following issues came up:

- o At Site 11 (Transformer Storage Area), the deep boring will not be drilled and only shallow soil samples (0-6 inches and 18-24 inches) are proposed. Since the 4-foot samples at shallow soil sample locations are optional depending upon field instruments and/or observations, the agencies thought that some minimum number of 4-foot samples should be collected and analyzed. It was agreed that at least three 4-foot deep samples will be analyzed at this site.
- o The number of trip blanks was discussed. Since a trip blank is required for each shipment (i.e., ice chest) of bottles for volatile organics analysis, VOA bottles will

be shipped in an ice chest storing only VOA bottles to minimize the necessity for analyzing an excessive number of trip blanks. (Note: If VOA bottles are mixed with other bottles (for metals analysis, PCBs, etc.), a trip blank would probably be required for each well sampled at MCAS El Toro.)

- o Sebastian said that EPA does not recommend that samples be taken with a submersible pump. Both Chuck Elliott and John Dolegowski said that they disagree with this. They said that collecting the sample with the submersible pump will provide a better sample than other methods which would require the removal of the submersible pump from the well and the insertion of a different piece of sampling equipment to take the sample. Sebastian said that he would look into this further with SAIC staff and EPA.

**Thursday, 24 January 1991**

A landfill discussion was held on 24 January with the RWQCB. Major points of discussion included the following:

- o Dixie Lass (RWQCB) asked if landfill gas was planned to be sampled in Phase I. CH2M HILL said no and mentioned that landfill gas had been collected and analyzed at each landfill at depths of 8 feet below the surface as part of the air SWATs work done at MCAS El Toro. This data will be evaluated during RI Phase I.
- o A first task of the RI should be to determine the depth of the waste material in each of the landfills.
- o The deep boring at the landfill sites should collect its 5, 10, 15, 20, and 25 feet samples starting at the landfill bottom, not ground surface. Only Site 2 (Magazine Road Landfill) should start this sampling at ground surface since the boring location is in a wash believed to be at a level equivalent to the bottom of the waste material in the landfill.
- o For the perimeter wells at the landfill sites, a sample in addition to the sample within 30 feet of groundwater should be analyzed if contamination is indicated by field instruments and/or observations.

**ATTACHMENTS**

## GENERAL RISK ASSESSMENT COMPONENTS

(after Hiatt, 1989 and RAGS, 1989)

### I. HUMAN HEALTH RISK ASSESSMENT

#### A. Preliminary Evaluation

Site visits, review of site history, and preliminary identification of exposure pathways have been done as part of the workplanning efforts, to assist in planning the initial phase of data collection.

Site-specific issues:

- o Most sites currently expected to have purposive sampling efforts (stratified random sampling) to identify area/chemicals of concern.
- o Unfiltered water samples will be requested for any surface water sampling, and for Phase 2 groundwater sampling.
- o Background samples will be taken in Phase 1 to help identify data needs and chemicals of concern.
- o General meteorological data, such as is available through National Climatic Data Center/NOAA, will be obtained during Phase 1. Other data needs may be identified during this phase.

#### B. Data Collection

The RA developed as part of the Phase 1 effort will identify data gaps to be addressed as part of Phase 2 sampling or other data collection.

#### C. Data Evaluation

- o Data screening and QA/QC (methods for evaluation of methods, quantitation limits, qualified and coded data, blanks, TICs,...)
- o General data summaries
- o Comparison with background
- o Data Gaps and uncertainties
- o Summary of Chemicals of Potential Concern

Site-specific issues include determination of adequacy of data for calculation of RME.

D. Identification of Chemicals of Concern

Selection criteria will be developed and applied to Phase 1 data to refine the list of chemicals of concern, and help identify further data needs.

E. Exposure Assessment

Phase 1 activities will include gathering site- and area-specific population and activity information.

F. Toxicity Assessment

Phase 1 activities will include developing any needed additional toxicity profiles for potential chemicals of concern.

G. Risk Characterization

Potential pathways, types of potential exposures, and quality of data collected will be reviewed to determine the level of risk assessment (quantitative, screening, qualitative) appropriate to Phase 1. In addition, data gaps and uncertainties will be discussed for all phases of the Phase 1 report in order to focus efforts for Phase 2.

## II. ECOLOGICAL RISK ASSESSMENT

The Phase 1 ecological risk characterization will focus on:

1. Exposure Assessment
  - o Characterizing potential receptors
    - Site visit by wildlife ecologist
    - Some priority locations determined by an initial visit during workplanning stages
    - Data base retrieval of species information and status
    - Agency contacts
  - o Identifying potential exposure pathways and routes. Those of particular ecological significance might include:
    - Potential uptake of contaminant by plants growing in contaminated soils in the immediate vicinity of the sites, or in areas over which water flows from sites during storm events.
    - Effects upon plants, particularly if there are some of special status or that may provide important food sources for animals.
    - Potential impacts upon aquatic organisms
  - o Estimating expected exposure levels
    - Specific sampling needs have been communicated to project team members.
2. Toxicity Assessment
  - o Evaluating advance effects of exposures
  - o Evaluating uncertainties

The Phase 2 ecological risk characterization will focus on filling data gaps that exist after sampling has been completed in Phase 1 and those existing data have been evaluated.

22 January 1991  
MCAS EI Toro RI/FS  
RI/FS Document Review Meeting

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23 January 1991  
MCAS EI Toro RI/FS  
RI/FS Document Review Meeting

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24 January 1991  
MCAS El Toro RI/FS  
Supplemental Meeting with RWQCB on Landfill Issues

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