

MOFFETT MEETING MINUTES

Prepared by: C. Keith Bradley

Location: EPA, Region IX

Date: June 1, 1988

Topic: Horizontal Conduits

Attendees:

<u>NAME</u>	<u>AFFILIATION</u>	<u>PHONE NUMBER</u>
Keith Bradley	IT - Knoxville	(615)694-4294
Donald Turner	Metcalfe & Eddy	(415)964-7100
Michael Cain	NAS Moffett Field	(415)966-5757
Ron Lubke	Metcalfe & Eddy	(415)964-7100
Lewis Mitani	EPA, Region IX	(415)974-7836
Glen Kistner	EPA, Region IX	(415)974-7199
Tom Berkins	RWQCB	(415)464-1249
Mark Jonas	Camp, Dresser, McKee	(415)495-5009
Mart Robertson	Navy OGC	(415)556-9027
Alison Ling	Navy OGC	(415)877-7113
Ltjg. J.V. Heckmann	NAS Moffett Field	(415)966-5330
Chloe Jue	WESTDIV	(415)877-7502
Ric Sorbo	IT - Martinez	(415)372-9100

- 1) Sorbo presented conceptual work plan for horizontal conduits study (overheads attached). Schedule and costs were not presented or discussed in Sorbo's presentation.
- 2) Kistner asked if location and interaction of other utility lines would be considered in study. Navy and IT responded that study would only include sewer lines for now, as these would likely be worst case. Other utility lines could be considered for follow-up investigation of horizontal migration if warranted after evaluation of sewer lines. Mitani and Berkins agreed with this approach, but requested that other utility lines be mapped during first phase.
- 3) It was agreed that if contamination is found along conduit, attempts would be made to identify the source.
- 4) Berkins suggested that soil gas survey might be good methodology. IT agreed.
- 5) Jonas recommended constant monitoring of water levels near conduits.
- 6) Cain explained that initiation of study would be in Phase II of the RI and would end in Phase III.

- 7) Ling asked about EPA's needs for timing of investigation and their perception of responsibility (Navy vs. MEW). Kistner said "the sooner the better". EPA did not care who performs the study, but wants it done ASAP.
- 8) According to Kistner, EPA has required that MEW do conduit study south of U.S. 101 and have found that their sewer system is not acting as conduit.
- 9) According to Kistner, EPA won't require a sewer study on Moffett as a prerequisite to approval of the MEW FS (EPA is reviewing draft FS now). The MEW FS does deal with contamination on Moffett.
- 10) The MEW ROD will include five year evaluations to determine if any further or different remediation is necessary.
- 11) The MEW remediation techniques will consider impact on Moffett RI.
- 12) Kistner hopes to have final MEW RI by June 15, 1988, and draft final FS by mid-August.
- 13) Kistner and Berkins asked MEW to investigate conduits on Moffett, but MEW deferred to Moffett.
- 14) EPA and State representatives (including CDM and M & E) caucused. Upon return, Kistner stated that impact of sewer study is not really on the MEW ROD, but on the RD/RA. The RD/RA may be proposed as early as this fall.
- 15) Mitani stated that the Moffett RI should include sampling of the outfalls to sloughs and bays, and should possibly include bioassays.
- 16) Berkins asked Heckmann to get Navy personnel to check invert elevations at a few (5-6) manholes.
- 17) Robertson asked the State and EPA to be more insistent that the MEW companies get involved in the sewer study.
- 18) EPA and the State was unaware that MEW companies have no intention to cooperate on sewer investigation on Moffett.
- 19) EPA and State both agreed that Navy concept for horizontal conduit investigation is appropriate.

SANITARY AND STORM SEWER SYSTEM EVALUATION

OBJECTIVES:

1. TO EVALUATE IF SEWERS ARE ACTING AS POTENTIAL CONDUITS TO ACCELERATE CONTAMINATION SPREAD.

2. TO EVALUATE IF SEWERS ARE ACTING AS POTENTIAL SOURCES OF GROUND WATER CONTAMINATION DUE TO WASTES DUMPED INTO SYSTEM.

PLAN SUMMARY:

PHASE I - TO GENERATE INITIAL INFORMATION AND RECOMMENDATIONS

- IF QUESTIONS REMAIN, MAY NEED MORE INVESTIGATIVE WORK

- MULTI-STEP APPROACH.

PHASE II - AS REQUIRED.

PHASE I APPROACH

STEP 1: WORK PLAN GENERATION WITH APPROPRIATE REVIEW/ACCEPTANCE

STEP 2: UPDATING OF BASE SEWER SYSTEM MAPS/DRAWINGS

STEP 3: DEVELOPMENT OF SAMPLING PLAN (LOCATION, FREQUENCIES, METHODS) WITH REVIEW

STEP 4: EXECUTION OF FIELD ACTIVITIES

STEP 5: ISSUANCE OF FINAL REPORT (AND RECOMMENDATION ON NEED FOR PHASE II) .

TECHNICAL APPROACH

- NAS MOFFETT STORM AND SANITARY SEWERS ONLY
- RELATIONSHIP BETWEEN GROUND WATER ELEVATIONS AND CONTAMINANT SPREAD
- SAMPLES FROM WITHIN SYSTEM (LIQUID, SEDIMENT)
- SAMPLES FROM OUTSIDE SYSTEM (BACKFILL)
- SAMPLES AT DISCHARGE POINTS TO BAY OR TREATMENT PLANT
- UTILIZE EXISTING DOCUMENTS AS MUCH AS POSSIBLE

SCHEDULE (PHASE I)

STEP 1 (WORK PLAN)	2½ MONTHS
STEP 2 (MAP UPDATING)	3 MONTHS
STEP 3 (SAMPLING PLAN)	3 MONTHS
STEP 4 (FIELD ACTIVITIES)	4 MONTHS
STEP 5 (FINAL REPORT)	3½ MONTHS

NOTES:

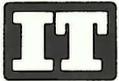
- TOTAL PHASE I EFFORT APPROXIMATELY 13 MONTHS; SOME STEPS WILL OVERLAP
- NO PROVISION ALLOWED IN SCHEDULE FOR DRY WEATHER VS. STORM EVENT SAMPLING
- REVIEW TIMES INCLUDED IN ABOVE DURATIONS

CHEMICAL TYPES

- VOLATILE ORGANIC SOLVENTS WERE PREDOMINANT CHEMICALS OF USE - PRIMARILY TCE AND TCA.
- TCE, TCA ARE MOST FREQUENTLY DETECTED AND PRESENT OVER LARGEST AREA.
- MOST CHEMICALS DETECTED IN GROUND WATER ARE AT DEPTHS WITHIN 100 FEET OF LAND SURFACE.
- 96% OF TOTAL VOLUME OF TCE, TCA, TOTAL 1,2-DCE AND FREON 113 DETECTED ABOVE B2-AQUIFER.
- BASIS FOR CONCERN IS POTENTIAL TOXICITY - NO OTHER CATEGORY OF CHEMICAL HAZARD.

CHEMICAL DISTRIBUTION

- FIVE COMPOUNDS MAPPED IN RI.
- TCE, TCA, TOTAL 1,2-DCE AND FREON 113 IN A, B1 AQUIFERS AT MOFFETT.
- GRADIENT TO NORTH ACROSS MOFFETT.



INTERNATIONAL
TECHNOLOGY
CORPORATION

July 26, 1988

Paula Pritz
Martin Marietta Energy Systems, Inc.
P.O. Box Y
Oak Ridge, TN 37831

Subject: June 1988 Meeting Minutes, NAS Moffett Field, Task Order X-09; IT Project Number 409616(Ala015)

Dear Paula:

Enclosed are five copies of revised minutes from Moffett meetings attended by IT during June. I apologize for the delay in getting these minutes finalized.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Keith Bradley'.

C. Keith Bradley
Project Manager

bb

Enclosures

cc: Chloe Jue, WESTDIV (5 copies)
Ltjg John Heckmann, NAS Moffett (5 copies)

Regional Office

312 Directors Drive • Knoxville, Tennessee 37923 • 615-690-3211