Hornecker, Lynn M (EFDSW)

From: Donald Chuck [dchuck@mail.arc.nasa.gov]
Sent: Friday, April 27, 2001 1:51 PM
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Subject: CROWS WORK PLAN


WP Comments.doc

Attached are my review comments for the SVE Optimization Work Plan, Attachments 8, 9, and 10. Hard copy of the attachment will be sent by mail. I will be out of the office from April 30 to May 9. If you have any questions or comments concerning this review, I will be happy to discuss them upon my return.

Don

QE: 218-1

Ms. Marianna Potacka, BRAC Environmental Coordinator
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132-5190

Dear Ms. Potacka:

NASA has received the following document from the Navy: Work Plan, Soil Vapor Extraction Optimization for the Remediation of UST Cluster 1 and Site Verification at Various Sites, NASA Crows Landing Flight Facility, Crows Landing California, by IT Corporation dated March 19, 2001. As noted in the cover letter, Attachments 8, 9, and 10 are new to the previous edition. These three attachments were reviewed and the following comments are provided.

In general, much of the work proposed in these attachments appears to be duplication of work previously done at the site. Additionally, more rationale needs to be provided to justify some of the proposed investigation work. This is especially true for the proposed survey work at Sites 10 and 18 where no-further-action records of decision have already been signed by the Navy and regulatory agencies.

There is concern that some of the duplicative work proposed will further delay the remediation of the site and NASA's ability to transfer the property to Stanislaus County. Specific comments follow.

Attachment 8 Discrete Groundwater Sampling Plan

COMMENT 1
Sect. 1.1.1, Par. 4, 3rd Sent., Pg. 1-2

The sentence states that remediation of the vadose zone at Cluster 1 had commenced in August 2000. It has been NASA's understanding, based on other documents and reports from the Navy, that Cluster 1 is still undergoing SVE performance testing and "optimization." Additionally, construction of the previously proposed remedial system was stopped. The sentence needs to be changed to indicate that testing is still underway at Cluster 1 and not remediation.

COMMENT 2
Sect. 1.1.1, Par. 5, Sent. 3, Pg. 1-2

Delete the ***or*** from ***and/or*** in this sentence. Aviation gasoline (AVGAS) was stored at Cluster 1 and released from the tanks.

COMMENT 3
Sect. 1.1.1, Par. 7, Last Sent., Pg. 1-3

Change the sentence to state that the "pits were ***removed*** and backfilled ..."

COMMENT 4
Sect. 1.2, Pg. 1-3

The objectives presented here are vague in nature. More details are needed to describe: where the sampling will take place (at least a map show proposed sampling locations), the data gaps or needs for the sampling (the rationale for the sampling), and how the proposed sampling will meet the requirements for the data needs.

COMMENT 5
Sect. 2.1, Pg. 2-1

Please provide the criteria to be followed for deciding to install a monitoring well. Concurrence from NASA will also be necessary for the installation of wells at Crows Landing. To obtain concurrence, maps showing well locations, nearby utilities, and a copy of the Stanislaus County well permit will be required.

COMMENT 6
Sect. 2.3, Pg. 2-1

The criteria to be used for deciding when to take soil samples and to do borehole logging needs to be provided. What are the data quality objectives (DQOs) to be addressed by this work?

COMMENT 7
Sect. 2.6, Pg. 2-2
The criteria to be used for deciding when to install a well need to be better defined.

COMMENT 8
Sect. 4.1, Pg. 4-1

Copies of the weekly reports to be submitted to the Navy should also be sent to NASA. NASA would also like copies of well logs and sampling analyses as they become available. The data can be marked a "preliminary" and will be treated as such by NASA. NASA needs to be kept better informed of the progress of the work going on at the NASA Flight Facility, Crows Landing.

Attachment 9: Site Verification at Former and Current Sewer System

COMMENT 1
Sect. 1.1, Par. 6, Pg. 1-2

The paragraph states that the previous report for the sanitary sewer system concluded that the risks associated with metals and chemicals detected during the site investigation was acceptable based on residential and industrial risk scenarios. What has changed since then to require this further investigative work? What are the data quality objectives (DQOs) that the work proposed in this work plan will address? Acetone and MEK are commonly found lab contaminants. Please indicate the reasons for thinking otherwise.

COMMENT 2
Sect. 1.1, Par. 8, Last Sent., Pg. 1-3

The sentence states that source and extent of nonvolatile solvents in the administration area have not been identified. Data presented to date and based on previous reports, it appears that the dry well at CL2 appears to be the source. Also based on data review, it does not appear that the extent is beyond the already defined plumes in the administration area.

COMMENT 3
Sect. 1.2, Pg. 1-3

The section refers to nonchlorinated solvents that were recently detected in soil gas. Are these detections from the recent soil vapor extraction tests done at Cluster 1? Review of soil gas data in the Draft Current and Former Sewer System Site Investigation Report, dated June 16, 1999, none of the compounds detected at Cluster 1 were detected except for acetone and MEK. It should also be noted that these compounds were not detected along the lines themselves but at the basins. Based on the sewer investigation report and previous soil gas work in the administration area, there does not appear to be any indication that the sewer lines are a conduit for contamination.

It is unclear why a passive soil gas survey is to be conducted in the administrative area. There is an abundance of soil gas, groundwater, and soil data for this area already. The rationale for performing this survey needs to be explicitly presented other than to verify previously collected data. Why does all of the data previously gathered need to be verified? Passive soil gas testing is not meant to be used to verify results of active soils gas surveys. The gas collection and analytical methods used in passive and active soil gas are completely different. Active soil gas testing draws soil gas by vacuum and can cover a larger area. The results provide a concentration of a compound in a volume of air. Passive techniques do not draw the gas in but require that the gas be able to contact the collection device. The results of the sampling technique measure ion flux collected over time by the adsorbent material. While qualitative comparisons can be made, the information from one technique is not directly related to the other.

While the survey of the main trunk lines of the sewer system may provide some additional data, the effort in the administration area is not necessary and will delay the remedial process for Site 17/Cluster 1 groundwater. As presently proposed, the passive soil gas is to verify previous sampling in this area. Then this survey will be followed by soil gas collection using direct-push techniques to verify the passive gas survey. Data then gathered from the passive and active gas survey will be used to determine if additional investigation and soil and groundwater sampling will be done. This amounts to conducting another remedial investigation.

With the data already collected to date, there is sufficient information to begin remediation of this site for both the vadose zone and the saturated zone. The EPA has designated soil vapor extraction (SVE) for VOCs in the vadose zone. An SVE system will provide additional soil gas information as well as remediation. It is not necessary to locate every discrete source of contamination. An SVE system of sufficient coverage will likely remediate all sources of VOCs that are present. SVE also stimulates biodegradation of contaminants in the soil. Air sparging combined with pumping is appropriate for the saturated zone. Air sparging reduces VOCs and also provides oxygen which is needed to help biodegrade petroleum products and acetone.

COMMENT 4
Sect. 2.1.3, Last Sent., Pg. 2-1

Delete the last portion of this sentence: "unless ... Navy." All utilities damaged as a result of construction will be repaired.

COMMENT 5
Sect. 3.0, Pg. 3-1

Copies of the weekly reports to be submitted to the Navy should also be sent to NASA. NASA would also like copies of well logs and sampling analyses as they become available. The data can be marked a "preliminary" and will be treated as such by NASA. NASA needs to be kept better informed of the progress of the work going on at the NASA Flight Facility, Crows Landing.

Attachment 10: Geophysical Surveys at Various Sites

COMMENT 1
Sect. 1.0, Pg. 1-1

Among the sites listed for the geophysical survey are IRP Site 10 and IRP Site 18. These sites have already been investigated and a no-further-action (NFA) Record of Decision (ROD) had been concluded between the agencies and the Navy. These sites should therefore be removed from the list for investigation.

COMMENT 2
Sect. 1.1, Last Paragraph, Pg. 1-2

In the first sentence, change the verb ***is*** to ***was***. The location of Site 10, based on review of aerial photographs and a map in the 1984 Initial Assessment Survey done by the Navy, was explored with trenches and nothing was found. Based on this trenching, the agencies agree to the NFA ROD.

The second sentence is incorrect. Site 18 consisted of two locations. The firing range portion was located near the runways near Site 11. There was a berm there where both small arms and aircraft guns were fired. The site is clearly seen in several early aerial photographs. The berm was removed and the area has been under cultivation since. As part of the remedial investigation for the site, a metal detector was used to locate and determine if any bullets or shells were still left. Some small caliber bullets were found consistent with a small arms range. It was determined that there was no risk left at the site. The other location is near Little Salado Creek in the southern portion of the base. A 20mm shell was found there. The site was reported as the location of an A-4 jet crash. A-4's carried 20mm cannons. The site was surveyed by an explosive ordnance detail from the Navy and no other munitions were found. Based on these results, the Navy and the agencies agreed to a NFA ROD.

Well 6/8-20H1 appears to be located where Well #1 for the base water supply is located. This well was destroyed by the Navy in 1992. Well 6/8-20A1 was Well #2 for base water supply. It should still be there.

A copy of the aerial photograph(s) showing the disturbed area in question should be provided. A review of several aerial photographs provided in a transmittal from the Navy dated 3/21/01 did not reveal a construction area as described in the paragraph and indicated on Figure 1.

COMMENT 3
Sect. 2.2, Pg. 2-2

Since there exists a NFA ROD for Site 10, further work at this site is not warranted.

COMMENT 4
Sect. 2.3, Pg. 2-2

Since there exists a NFA ROD for Site 10, further work at this site is not warranted.

COMMENT 5
Sect. 3.1, Pg. 3-1

Copies of the weekly reports to be submitted to the Navy should also be sent to NASA. NASA would also like copies of well logs and sampling analyses as they become available. The data can be marked a "preliminary" and will be treated as such by NASA.

NASA needs to be kept better informed of the progress of the work going on at the NASA Flight Facility, Crows Landing.

COMMENT 6
Figure 1

Site 10 is incorrectly located. It should be moved approximately 300 ft. north from where it is depicted.

NASA is prepared to discuss these and other issues concerning the remedial work at the NASA Flight Facility, Crows Landing and what can be done to expedite both the clean up and transfer of the property. If you have any questions, I can be contacted at 650-604-0237.

Sincerely,

Donald M. Chuck
Environmental Remediation Specialist
Environmental Services Office

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TRANSMITTAL

Date: 12 June 2001

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To: Diane Silva
Code 01LS.DS

Subj: CERCLA Administrative Record Materials
NALF Crows Landing

Installation: Naval Auxiliary Landing Field, Crows Landing

UIC Number: N60211

Document Title (or subject): NASA comments on Crows Work Plan

Author: DonChuck NASA

Recipient: Marianna Potacka (BEC)

Record Date: 27 April 2001

Approximate Number of Pages: 7

EPA Category: 01.1

Sites: Sites 11 + 17

Key Words: groundwater, VOCs

Contract: N/A

CTO Number:
N/A