



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 27th FIGHTER WING (ACC)
CANNON AIR FORCE BASE NEW MEXICO



24 MAY 1999

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Mr. Benito J. Garcia, Chief
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2044 Galisteo Street
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Plutella...
Plz handle
EW. - 6/1/99

Dear Mr. Garcia

Enclosed for your review and approval are responses to Dr. Robert S. Dinwiddie's letter of 25 Feb 99 requesting supplemental information on the Cannon AFB Corrective Measures Study Work Plan, Solid Waste Management Units (SWMUs) 86-90 (Site SD-11).

Questions regarding these responses or the Cannon AFB Restoration Program may be addressed to Mr. John S. Pike, of my Civil Engineer Environmental Flight at (505) 784-1092. I look forward to the continued cooperation between our organizations in addressing the environmental restoration concerns of Cannon AFB.

Sincerely

DAVID E. CLARY, Colonel, USAF

Attachment:
Cannon AFB Response for Supplemental Information

cc:
EPA (B. Sturdivant)
NMED HRWB w/o atch (C. Will)
HQ ACC CES/ESVW w/o atch (M. Patterson)

**RESPONSE TO NMED COMMENTS
CORRECTIVE MEASURES STUDY WORK PLAN
SWMUs 86-90 (SITE SD-11)
CANNON AFB, NEW MEXICO**

Comments dated February 25, 1999

General Comments

Comment 1. By letter from Stu Dinwiddie to Colonel Koerner, dated September 19, 1997, HRMB required that a CMS be completed for this site. Address all comments in the letter in the CMS Report when the Report is submitted.

Response: Comment noted.

Section One, Introduction

Comment 2. Figure 1-3, Estimated Schedule. According to the schedule submitted with the Workplan, the final Workplan was to be issued on August 20, 1998, and field work was to be completed by October 7, 1998. HRMB did not receive the Workplan until October 20, 1998, which did not allow time for review of the Workplan prior to completion of the field work.

Response: Comment noted.

Section Three, Site Background

Comment 3. Include a map showing the location of production well No. 9.

Response: Production Well No. 9 is shown on Figure 3-1.

Comment 4. Page 3-3. In the discussion of the 1991 RI, include the levels of TPH detected.

Response: TPH was not analyzed for during the 1991 RI.

Section Four, CMS Objectives and Approach

Comment 5. 4.2 Corrective Measures Study Approach. a. In the September 19, 1997 letter, HRMB stated that the CMS should address the delineation of horizontal extent of contamination at the site, which had not been done in prior investigations, and determine the means for reducing the levels of TPH contamination to 1000 mg/kg. It is not clear how this Workplan addresses those issues.

Response: The work plan does not address these issues. However, the CMS report will address each of these issues.

b. The proposed boring locations will not delineate horizontal extent of contamination. TPH was detected at boring 8612, the most westerly boring location at the site, at 5390 mg/kg. Additional borings may be required west of boring location 8612 in order to determine the extent of horizontal contamination, or there must be a risk-based determination that the levels detected are acceptable to remain in place.

Response: No borings were scheduled to be collected west of boring 8612. In the CMS report, risk will be used (to indicate that detected levels of TPH can be left in place).

c. There is no discussion in the Workplan of how to address the levels of TPH contamination detected. In order to address whether or not removal of soil contaminated with TPH above 1000 mg/kg is required, the risk assessment process described in the Workplan must incorporate sampling results from prior investigations, including the TPH detected, as well as the results from this current investigation.

Response: Since TPH is a complex chemical mixture, no toxicity value has been established for it. Therefore, no Tier 1 (MSSLs) value can be calculated for TPH. However, the soil samples were also analyzed for VOCs, SVOCs, and PAHs. These compounds are known to contain constituents of TPH. It is these compounds that will be used to determine whether or not TPH concentrations above 1,000 mg/kg need to be removed.

The CMS report will include Phase II RFI and CMS data. However, soil data prior to the Phase II RFI will not be included because the soil has been removed.

d. **Page 4-2.** The Workplan states that if concentrations of COPC's are at levels that could migrate to groundwater, based on EPA Region VI Media-Specific Screening Levels (MSSL's), then fate and transport modeling will be done. HRMB is not aware of MSSL's for TPH. Without using MSSLs, how will CAFB determine if TPH levels are a threat to groundwater and if transport modeling is required?

Response: If any individual constituents are detected at concentrations which exceed their MSSLs, the constituents will be modeled to determine whether or not groundwater will be impacted. As discussed above, the individual constituents are being used to assess potential risks from TPH.

e. **Page 4-2.** The Workplan states that once extent of contamination has been defined, then corrective measures alternatives will be evaluated. Remediation goals must be determined before corrective measures alternatives can be evaluated.

Response: The RBCA process is being used to determine the remediation goals for site SD-11.

Comment 6. 4.6.2. Derivation of EPA Region VI MSSLs. a. MSSLs for direct exposure to soil are not sufficient to be used alone as screening levels. Levels of soil contamination below MSSLs can be unacceptable if there is a threat of transport to groundwater resulting in groundwater contamination above cleanup standards. How will CAFB address this issue for TPH levels at the site?

Response: Groundwater is unlikely to be impacted by site SD-11 for several reasons. First, depth to groundwater is 250 feet bgs. There is no surficial aquifer below Cannon AFB. Second, groundwater is approximately 200 feet below the depth of URSGWC's deepest boring. Third, the samples collected from the deep borings were nondetect. Therefore, concentrations below residential MSSLs are unlikely to impact groundwater beneath Cannon AFB. Any detected concentrations which exceed the Tier 1 MSSLs will be modeled to determine if groundwater is at risk. As discussed in Comment 5c., TPH will be evaluated using detected concentrations of VOCs, SVOCs, and PAHs.

b. Page 4-9, line 4. Replace "screening level MSSLs are not expected" with "screening level MSSLs are not exceeded."

Response: The word "expected" will be changed to "exceeded."

c. The section on MSSLs for lead in soil states that the EPA Region VI industrial soil MSSL for lead is 2,000 mg/kg. As of August, 1998, this value is listed in the EPA Region VI Human Health Medium-Specific Screening Levels as 1,000 mg/kg.

Response: The MSSLs updated on October 8, 1998 and printed February 1, 1999, show the industrial soil MSSL for lead to be 2,000 mg/kg. Therefore, 2,000 mg/kg will be used as the Tier 2 concentration for the CMS.

Field Sampling Plan

Comment 7. Page 1-1, paragraph 1, line 2. Change "1-1" to 1-2."

Response: The change will be made in the CMS report.

Comment 8. Page 1-1, paragraph 4, line 4. Insert after "collected from" "each of the."

Response: The change will be made in the CMS report.

Comment 9. Page 1-2. Specify whether the low or mid-level detection limit is used to trigger USACE Technical Manager notification.

Response: As stated on page 1-2 of the field sampling plan, any detection of TPH would have resulted in the notification of the USACE Technical Manager.

Comment 10. Page 1-2. VOC's will be analyzed by EPA Method 8260B. Be advised of Update III to SW-846 sample collection technique published in the June 13, 1997 Federal Register Vol. 62, No. ... [sic].

Response: Comment noted. This was discussed with the USACE Project Chemist (Nick Naraine) prior to the submittal of the Draft Work Plan. It was determined samples should be collected/prepared by Method 5030 for consistency with historical activities.