



CAF B 00
DEPARTMENT OF THE AIR FORCE
27TH CIVIL ENGINEER SQUADRON (ACC)
CANNON AIR FORCE BASE NEW MEXICO

CAF B 99-008

Lt Colonel Eric J. Wilbur
Commander
506 N DL Ingram Blvd
Cannon AFB NM 88103-5136

28 JAN 2000

Mr. James Bearzi, Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department (NMED)
2044 Galisteo Street
P O Box 26110
Santa Fe NM 87502

Dear Mr. Bearzi

Enclosed for your records is the final Corrective Measures Completion Report and the Revised Response to NMED comments for the removal of 19 oil/water separators in the Appendix II and III of our RCRA Part B permit. These oil/water separators were removed in 1996 and 1997.

If you have any questions, please contact Mr. John Pike at (505) 784-1092 or Mr. Sanford Hutsell at (505) 784-6378.

Sincerely

ERIC J. WILBUR, Lt Col, USAF

Attachments:

1. Completion Report
2. Revised Comments

cc:

NMED w/o atch (C. Will)
NMED GW Bureau (J. Jacobs)
EPA Region VI (B. Sturdivant)
HQ ACC CEVR (R. Kemmether)

**REVISED RESPONSE TO NMED COMMENTS
CAFB CORRECTIVE MEASURES COMPLETION REPORT
APPENDIX II AND III SWMU'S – OIL/WATER SEPARATORS**

GENERAL COMMENTS

Page V, Executive Summary: Include a statement describing the Gandy Marley disposal method for soils contaminated with greater than 100 mg/kg TPH.

Response: Cannon AFB will comply with request and enter the following statement into the revised report: *Gandy Marley remediates soil by landfarming techniques. Remediation is accomplished by spreading out the soil in six-inch lifts in a five-acre area or less and disking it every two weeks until soil samples prove the soil is below State of NM regulatory limits. Gandy Marley is a NMED permitted landfarm facility.*

Page V, Executive Summary: Include a statement describing the sampling technique that was used for the concrete prior to disposal.

Response: Cannon AFB will comply with the request and enter the following statement into the revised report: *Prior to disposal, composite samples of concrete chips from the interior floor of the OWS were analyzed by ASTM methods 8260, 8270, and TCLP for metals.*

Page 4-2, Unit Contents, and throughout: Include a description of the sample analysis that was performed to determine whether or not sludge and liquids from the SWMU's was hazardous waste prior to disposal. The Workplan at page 47, section 4.7, states that fluids and sludges from the units would be sampled according to DCQM for Petroleum Storage Tank Remediation Projects in Appendix E. Appendix E contents were not included in HRMB's copy of the Workplan.

Response: Cannon AFB will comply with the request and enter the following information into the revised report: *Unit contents were analyzed for SW-846 methods 8260 Volatiles, 8270 Semi-Volatiles, TCLP extracted 8 RCRA metals, pH, Ignitability, and Reactivity-Cyanide, TPH and Sulfide. Results from analysis will be placed in Appendix I.*

Page 4-2, Unit Contents, and throughout: The report states that sample analysis results for the sludge and liquids removed from each OWS and sandtrap are included in Appendix I. Appendix I sampling data are for soils and solids only, and appear to be duplicates of soil sampling results in Appendix IV, Laboratory Analysis Results for Soils. Explain the discrepancy. Include sampling results for the SWMU Contents in the Report.

Response: Laboratory analysis for sludge and liquids will be included in Appendix I of the revised report. Clerical error resulted in the discrepancy.

Page 4-4, Table 4.1-1, page 4-7, Table 4.1-3 and throughout: The Workplan, Appendix II and III Solid Waste Management Unit, dated April, 1996, at sections 3.11.1.4 and 4.3.1.9, states that analysis for total RCRA metals would be performed at the bottom of each

excavation. The Summary Soil Sample results tables indicate that only TCLP metals were sampled. Include total metals results in all summary Soil Sample Results tables.

Response: Total Metals were also analyzed for at the bottom of each excavation. The results are available in Appendix IV, however, the Total Metals Soil Sample Results will be placed in the Summary Soil Sample Tables as requested.

Page 4-7, Table 4.1-3, and throughout: The Work plan approval issued by HRMB on April 22, 1997, stipulated that analysis for chromium would be valence specific for chromium VI. The Report does not indicate that this was done. Explain the discrepancy.

Response: Total Chromium was analyzed at each location. Analysis of total chromium at the SWMUs revealed levels were below the established background level for Cannon AFB with the exception of SWMU 51. Because only the analysis for total chromium was performed, a conservative assumption was made to assume all chromium detected was chromium VI. According to 1998 EPA Region IX PRG's, the chromium VI screening level for protection of groundwater, with a DAF of 20, is 38 mg/kg. According to EPA Guidance, these sites meet the criteria for use of the DAF of 20, based on their area and soil type. None of the sites exceeded the 38 mg/kg screening level requiring further action.

Appendices: Include laboratory analysis results for each duplicate of samples submitted for laboratory analysis to correlate field findings.

Response: Results for duplicates will be included in Appendix IV.

Appendices: Laboratory analysis results for soil in Appendix IV appears to not include SWMU's 1, 7, 11, 38, and 63. Include those results if missing.

Response: Missing results will be included into Appendix IV of the revised report.

4.1 Appendix II SWMU's

4.1.1 SWMU 1

Soil Sampling, Page 4-3: Sample locations 2 and 4 were collected from the east and west walls two feet below the top of the unit, which is described as an inch below the soil level. Sample information in Volume 2 lists these samples as taken from a depth of 11 feet bgs. Explain the discrepancy.

Response: Samples 2 and 4 were both taken 11 feet bgs, which is 2 feet below the floor of the OWS slab that was left in place. Clarification will be made to the revised report.

Risk Evaluation, Page 4-7, Table 4.1-3: The Region 6 Residential RBSL values in the table for barium, nickel, and lead are an order of magnitude lower than what they should be. For example, the RBSL for lead is 400 mg/kg, not 40 mg/kg.

Response: Cannon AFB concurs. Table will be changed to meet EPA Region VI specifications in the revised report.

4.1.2 SWMU 7

Soil Sampling, Page 4-10: Provide further explanation of why sample #8 was considered not representative of the excavated material. Provide an explanation if the analytical results were believed to be in error. Identify whether or not samples #8 and #10 were composite samples. If known, provide information on the location of sample #8 relative to sample #10 and to the location of soil prior to removal.

Response: Sample number 8 was taken from a single hot location in the stockpile and was not a composite sample. Confirmatory samples from the sides and bottom of the excavation showed no detectable contamination. Sample number 10 was a composite sample of the excavated soil. Information will be added to the revised report for clarification.

4.1.4 SWMU 9

Soil Sampling, Page 4-26: Identify in the report, on a map and in a narrative discussion, the verification sample taken at the leaking joint.

Response: Cannon AFB will concur and information will be inserted into the revised report.

Page 4-27: Include an explanation of why sample #11 was not analyzed.

Response: Sample #11 was a split sample for the government QA, but not analyzed due to funding constraints. A QA sample was taken at a later date. Information detailing the action will be included into the revised report.

4.1.6 SWMU 32A

Soil Sampling, Page 4-42: Submit to HRMB a SWMU Assessment Report and investigation of the newly-discovered release in accordance with Module IV, Section E and F, of CAFB's RCRA Permit, for the soil contamination under the adjacent concrete washrack and resulting from runoff from the clogged drain and surface contour.

Response: The adjacent washrack is identified in the Cannon AFB RCRA Permit as SWMU 31. No SWMU assessment is necessary as the site was previously identified and assessed in the base-wide RCRA Facility Assessment. The site will undergo further evaluation to determine the nature and extent of contamination, however, the location is currently industrially active. Previous RCRA Facility Investigations have shown limited contamination which will need to be addressed in the future. Cannon AFB will program further investigation for SWMU 31. SWMU 32A, while adjacent to SWMU 31, is a separate site.

4.1.7 SWMU 33b

The divider for this section is labeled "32B." Submit a divider with the correct tab label.

Response: Cannon AFB will concur.

Unit Contents, Page 4-48: As stated in the general comments, include the sample results indicating the possibility of high lead.

Response: Concur-Sample results for the OWS contents will be included in Appendix I of revised report.

4.2 Appendix III SWMU's

4.2.3 SWMU 51

Soil Sampling, Page 4-88: Sample 5 field sampling analysis should have led to additional sampling or soil removal. The Work Plan, at sections 3.5.3, 3.6.2.8, and 4/3/1/5, states that vertical and lateral extents of contamination would be determined by completing borings to detection levels less than Primary Remediation Goals of 100 ppm TPH and 50 ppm BTEX, and that soil with field detection levels greater than 100 ppm TPH would be excavated. The levels of TPH detected are not addressed in the risk analysis.

Response: Further excavation of soil from the site was not performed because of the location of the OWS with respect to the structural support of the building. Engineers feared that further soil removal could place the support foundation of building 375 in jeopardy leading to structural failure. A decision was made to leave the soil in place based on the detected level of contamination not exceeding 400 ppm TPH and to justify by risk evaluation. The risk analysis will be added to the text to justify the action.

4.2.5 SWMU 61

Soil Sampling, Page 4-106: Explain why field-sampling analysis did not include BTEX.

Response: The BTEX field-sampling at this location was overlooked by the contractor. The Quality Assurance personnel were absent due to a family emergency and failed to correct the mistake prior to the area being backfilled and covered by an asphalt parking lot. The location is identified by a permanent survey marker and could be further investigated, however, due to the absence of Total Petroleum Hydrocarbons at the site, Cannon Environmental personnel are confident that no significant BTEX contamination exists.

4.2.5 SWMU 62

Soil Sampling, Page 4-113: Explain why field-sampling analysis did not include BTEX.

Response: See response for Soil Sampling, Page 4-106 above.

4.2.7 SWMU 63

Unit Removal, Page 4-119: The report does not state that the concrete was analyzed prior to disposal.

Response: The concrete sampling at this location was overlooked by the contractor. The Quality Assurance personnel were absent due to a family emergency and failed to

correct the mistake prior to disposal. The concrete vault was thoroughly cleaned with a high pressure washer with the wash water tested prior to disposal.

Soil Sampling, Page 4-127: Explain why field-sampling analysis did not include BTEX.

Response: See response for Soil Sampling, Page 4-106 above.

4.2.8 SWMU 70

Soil Sampling, Page 4-129. Table 4.2-15 shows that field analysis results detected BTEX greater than 300mg/kg. Explain why these sample results did not result in further sampling analysis or soil removal. These detections are not discussed in the text.

Response: No additional soil was removed at the time of the OWS removal as a system for soil remediation, a bioventing system, is already in place. This system is addressing the petroleum contamination at the site. Removal of the OWS was a protective measure to ensure the source of contamination was eliminated leaving no chance for further soil pollution.

4.2.9 SWMU 92

Unit Description, Page 4-136: Include an explanation of what was the source of discharge into this OWS, for example by explaining what is a Power Check Pad.

Response: A Power Check Pad is an area where aircraft engine testing is performed. Jet fuel, petroleum, oils and lubricants that drip from the engine as it is tested are washed into a drain on the pad and into an OWS before the wastewater is released to the sanitary sewer. This explanation will be entered into the text of the revised report.