

CAFB 94-99

M E M O R A N D U M

TO: STEVE ZAPPE, RCRA PERMITTING PROGRAM
FROM: ^{2w} LEE WINN, SUPERVISOR, RCRA TECHNICAL COMPLIANCE PROGRAM
DATE: MAY 2, 1994
RE: REVIEW OF CANNON AIR FORCE BASE'S APRIL 13, 1994 DRAFT
POST-CLOSURE CARE PLAN FOR CELL 3, LANDFILL 5.

The following comments in Attachment A are provided as a review of the technical adequacy of Cannon Air Force Base's (CAFBs) April 13, 1994 re-submittal of the "Draft Post-Closure Care Plan" for Cell 3, Landfill 5. Previously, on September 2, 1992, the New Mexico Environment Department issued a Notice of Deficiency (NOD) on the October 1988 (revised July 1992) Post-Closure Care Permit Application.

On April 15, 1994, the RCRA Technical Compliance Program (RCRA TCP) agreed to review the ground-water monitoring program. The RCRA TCP declined to review the cap inspection and maintenance program due to a lack of expertise. It was also agreed that the list of technical concerns would be delivered by April 29, 1994.

At this time the RCRA TCP does not recommend approval of the Closure and Post-Closure Plan. It is understood that the RCRA Permitting Program will determine how these concerns will be addressed.

cc: ~~File:CAFB red~~ Confidential 94
Barbara Hoditscheck

File:bcafb3

ATTACHMENT A

In the submittal of the Final Post-Closure Care Plan, CAFB must include an attachment which lists the following items, including the pages in the Final Post-Closure Care Plan submittal where these items are addressed. Additionally, text in the Final Post-Closure Care Plan which differs from the Draft language should be noted for easy reference.

The following comments are provided as a review of the technical completeness of the Cannon Air Force Base (CAFB) April 13, 1994 Draft Post-Closure Plan (Plan) for Cell 3 Landfill 5 (Cell 3). The first category below describes general comments which are significant items missing from the Plan. The second category below describes specific comments from the text of the proposal.

GENERAL COMMENTS:

The three most significant inadequacies of this Plan are:

1. Lack of a schedule for installing the proposed new background well,
2. Lack of exact methodology for determining statistical difference in ground-water indicator constituents, and
3. Remaining inadequacies in sampling methods for Appendix IX constituents.

SPECIFIC COMMENTS:

The following are specific comments which need clarification before the Plan is technically complete. Reference to the Plan text are located by part, section, page, and paragraph, where applicable. The specific text is quoted and highlighted in bold. Following are the RCRA TCP comments.

ITEM

COMMENT

1. Section 1.3.3, page 7, paragraph 4. "**Boring logs from the installation of monitoring well....**" CAFB must provide a cross section using all well boring information, sampling and coring data for monitoring wells A, B, C, D, I, L, M. This cross section must show stratigraphic units, static water levels, screened intervals, and total depths. The cross section must clearly present individual stratigraphic units. Additionally, wells which are not compliance monitoring wells may be utilized as supplemental wells where applicable.
2. Section 1.3.4, page 9, paragraph 3. "**...groundwater potentiometric surface contour maps were constructed as shown in Figures 1.6, 1.7, and 1.8.**" On each figure

CAFB must provide scale representation and location of: 1) the entire landfill, 2) cell 3, and 3) all monitoring wells. Additionally, CAFB must include data for well L on figure 1.8. For all ground-water flow direction arrows on these figures, CAFB must show calculations and triangles for calculations of three point problems directly on these figures. Please provide ground-water elevation maps and flow direction from each year of data listed in Table 1.1. Finally, CAFB must provide ground-water elevation graphs for each monitoring well over time to indicate seasonal variation in ground-water elevations.

3. Section 5.2, page 28, paragraph 3. **"The intent of a replacement well for MW-A is to install a screen across the unsaturated/saturated interface on order to be compatible with downgradient monitoring well construction. The well will be drilled to a depth of approximately 280 feet and will be screened from 260 to 280 feet below ground surface. It will be located within 20 feet of existing Mw-A. Construction specifications will be the same for the existing wells (see Appendix A for details)."** There are no details for the construction of this proposed background well in Appendix A. CAFB must explain and clarify this discrepancy. Additionally, it is assumed that the reasoning for the location of the proposed background well is to gain further understanding of vertical gradient in the area. However, CAFB must describe the rationale for locating this well 20 feet from the existing monitoring well A. CAFB must also provide a time schedule for the well installation. Furthermore, CAFB may consider installing more than one additional background monitoring well to aid in determining local variability in water quality parameters utilized in statistical calculations concerning background water quality.
4. Section 6.2.1, page 31, paragraph 3. **"During one of the quarterly sampling events, the monitoring wells will also be sampled for 40 CFR 264 Appendix IX compounds with the exception of dioxin."** Item number 3 of the September 2, 1992 Notice of Deficiency for the Post-Closure Care permit Application (revised July 1992) required that CAFB sample annually for Appendix IX hazardous constituents in all RCRA monitoring wells including herbicides and pesticides. CAFB must include dioxin in the Appendix IX list.
5. Appendix G, Table 1. It is suggested that all

analytical methods and extraction methods listed in this table conform with U.S. EPA "Test methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846." CAFB must arrange this table into Appendix IX methods and indicator parameter methods. CAFB must include sulfide in the list of Appendix IX analytes and analyze for it using method 9030. Chromium, one of the indicator parameters is missing from this list. Please include chromium on the list and analyze using method 7191, also use method 7421 when analyzing for lead.

The following additional concerns from the September 1992 NOD. (Item 29.) SW-846 states that the minimum volume required for analysis for TOC is 250 ml. Please explain why the sample containers listed for TOC are 4 x 25 in Appendix G. (Item 30.) SW-846 states that the maximum holding time for Nitrate is 14 days. Please explain the reasoning for listing the maximum holding time as 28 days.

6. Appendix G, **Table 2**. CAFB must include method 8280, or an equivalent method, to sample for Appendix IX dioxins and furans. Additionally, CAFB should also sample for volatile organics using methods 8010 and 8015, in addition to method 8240, to achieve lower practical quantitation limits for the analytes listed in these methods. CAFB must sample for chromium using method 7191 because it has a 10 ppm practical quantitation limit. This method should be used for both Appendix IX sampling and indicator parameter sampling. Finally, CAFB must include the following analytes which are missing from the Appendix IX list:

method 8240:
Dibromochloromethane
1,1-Dichloroethane
Methyl chloride
Methylene bromide
Methylene chloride
Methyl ethyl ketone (MEK)
method 8270:
1,2,4,5-Tetrachlorobenzene
2,4,6-Trichlorophenol

7. Section 6.4, page 36, paragraph 1. **"The EPA has developed guidelines for using statistical methods for analysis of groundwater monitoring data at RCRA Facilities (EPA, 1992)."** Please provide a copy of this document as an appendix to this Post-Closure Care Plan.

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8. Section 6.4.1, page 36, **Statistically Significant Detection Limit and Baseline Concentrations**. CAFB must provide examples of each statistical method described in this section. Please refer to section and page number of the guidance document described in item number 8 above in the example for each statistical method.