

File: CAFB Red 1995



Gary E. Johnson  
Governor

State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
Hazardous & Radioactive Materials Bureau  
525 Camino De Los Marquez  
P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-4358  
Fax (505) 827-4361

Mark E. Weidler  
Secretary

Edgar T. Thornton, III  
Deputy Secretary

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

February 28, 1995

Brigadier General William M. Guth  
Base Commander, 27 FW/CC  
100 South DL Ingram Blvd, Suite 100  
Cannon AFB, NM 88103-5214

**SUBJECT: Notice of Deficiency (NOD) - Landfill 5, Cell 3 Post Closure Care Plan, February 28, 1995.**

Dear General Guth:

The Hazardous and Radioactive Material Bureau (HRMB) of the New Mexico Environment Department (NMED) has reviewed, for technical adequacy, the April 11, 1994, Cannon Air Force Base (CAFB) post-closure care plan required under the Resource Conservation and Recovery Act (RCRA). This plan describes post-closure care at CAFB's Landfill 5, Cell 3 and addresses most of the deficiencies outlined in the September 2, 1992, Notice of Deficiency (NOD) letter.

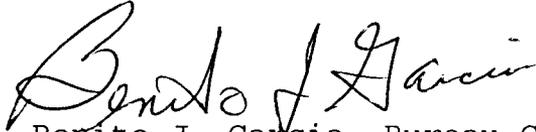
HRMB has found the plan to be technically deficient. The enclosed attachment A lists the requested information necessary for HRMB to complete this review of this plan. Submit the requested information with the complete post-closure plan on a 3.5" disk compatible with WP 5.2, to HRMB within 30 days of receipt of this letter. Failure to submit the information within this designated time may result in the issuance of a Notice of Violation (NOV). If you feel that 30 days will not be sufficient to respond to this NOD, we will consider a petition to extend the deadline for portions of the required information if you provide a written justification and expected submittal date for each portion.

If necessary call to arrange for a meeting date on this NOD if complete understanding of what HRMB is requiring is not clear.

General William Guth  
Page 2  
February 28, 1995

If you have any questions concerning this NOD please contact  
Charles Lundstrom of my staff at 827-4308.

Sincerely,

A handwritten signature in cursive script that reads "Benito J. Garcia". The signature is written in dark ink and is positioned above the typed name.

Benito J. Garcia, Bureau Chief  
Hazardous and Radioactive Materials Bureau

xc: Barbara Hoditschek, HRMB  
Ron Kern, HRMB  
File: CAFB Red 1995  
File: Reading

**ATTACHMENT A**

**Notice of Deficiency Items Technical Completeness Review**

CAFB's submittal of the Final Post-Closure Care Plan must include the following:

- (1) The text in the Final Post-Closure Care Plan which differs from the Draft Language should be highlighted for easy reference, and
- (2) The clean pages in the Final Post-Closure Care Plan submittal where these comments items are addressed.

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. Details of a schedule for installing the proposed new background well must be provided;
2. Details for methodology for determining statistical difference in ground-water indicator constituents must be provided; and
3. Remaining inadequacies regarding Appendix IX constituents such as missing analytes, inappropriate sampling methods must be remedied.

**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.

- | <u>ITEM</u> | <u>COMMENT</u>  |
|-------------|---|
| 1.          | Section 1.3.3, page 7, paragraph 4. <b>"Boring logs from the installation of monitoring well...."</b> 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. <b>"...groundwater potentiometric surface contour maps were constructed as shown in Figures 1.6, 1.7, and 1.8."</b> 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. <b>"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)."</b> 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 are additional concern from the September 1992 NOD: a) (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. b) (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.
  
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.