File HAFB BCU 91

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS TACTICAL AIR COMMAND
LANGLEY AIR FORCE BASE VA 23665-

28 February 1991

Dr Bruce Swanton
Hazardous Waste Bureau
Environmental Improvement Division
New Mexico Health and Environment Department
1190 St. Francis Drive
Santa Fe, New Mexico 87503

Dear Dr Swanton

I am pleased to provide you and your staff with a copy of the Tactical Air Command letter addressed to Mr Davis. It has been transmitted by FAX to the EPA Region VI office, and a hard copy was placed in the mail this afternoon to that office as well as to yours. It fulfills our commitment to provide you with an outline of our proposed sampling and analysis plan on or before March 4, 1991. A number of features in the plan are expressed with variables, owing to the fact that decisions have not yet been resolved regarding acceptable constituent cleanup levels.

We have not had any contact with the EPA Region VI office since our meeting on January 31, but we will be initiating contact by the end of next week to discover what they have decided regarding the width and breadth of a risk assessment methodology and target goals. Please feel free to contact Mr Johnson or me directly if you have any questions regarding the proposed sampling plan. I look forward to resuming our dialogue on this matter, and making progress on what needs to be done.

Craig Anderson

CRAIG ANDERSON, Lt Colonel, USAF
Director of Environmental Law

1 Atch
TAC/DEV Ltr, 28 Feb 91 w/atch

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS TACTICAL AIR COMMAND
LANGLEY AIR FORCE BASE VA 23665-5001

28 FEB 1991

Mr Allyn M Davis
Hazardous Waste Management Director
U.S. EPA Region 6
1445 Ross Ave
Dallas TX 75020

Dear Mr Davis

Tactical Air Command appreciates the cordiality and candor exhibited by your negotiating team during the January 31 session in Santa Fe, New Mexico. Lt Col Anderson and Mr Johnson have briefed us regarding the various issues discussed and given us a rundown on the central questions to be answered in the near term. The purpose of this letter is to transmit to you our proposed sampling and analysis plan, a feature we expect will be an important component of an approvable closure plan for the Holloman lagoons.

The US Army Corps of Engineers, Omaha District, and, to a lesser extent, the Radian Corporation, have assisted us in preparing the narrative outline for a sampling and analysis plan presented by the attachment to this letter. The relatively short suspense agreed to by our team required that we prepare the outline "in house." Once we receive your comment and suggestions regarding our approach and methodology, we can revise the outline and use it as a blueprint for the Corps to use in fleshing out the details and adding the finishing touches.

It actually works out well that we present the sampling and analysis plan in narrative outline form since our discussions regarding the risk assessment parameters and the standards to be met by a site specific demonstration closure have not yet been agreed upon. We understand that during this 30-day period, your team is examining precedent from around the country in order to clarify the necessary standards that will apply to this cleanup.

We in Tactical Air Command place the highest priority on finding a solution to the compliance problem at the Holloman lagoons. We appreciate the spirit of cooperation at the 31 Jan meeting and believe that we are now on a course which will lead to a solution which is environmentally sound and economically feasible. The follow-up work by our respective teams will continue to get our strongest support.

Sincerely

Ernest O Robbins II

EARNEST O. ROBBINS, II, Lt Col, USAF
Director, Environmental Programs

1 Atch
Sampling & Analysis Plan

CLOSURE OF SEWAGE TREATMENT LAGOONS

1.1 Approach to Closure. The approach to closure for the sewage treatment lagoons will be to conduct identification and characterization sampling in all lagoons, per the sampling protocol listed in EPA Test Methods for Evaluating Solid Waste (SW846) dated September 1986, then conduct and verify the removal of hazardous waste constituents in accordance with 40 CFR Section 265.228, as adopted by NMEID. The closure activities can be effectively implemented while the lagoon system is operating as a treatment unit for current nonhazardous wastewater streams.

1.2 Planned Closure Procedures

1.2.1 Closure of the Lagoons will involve the following activities:

1.2.1.1 Conduct a sampling event in each area of concern (i.e., lagoon) utilizing the simple random sampling methodology stated in SW846, and as stated in the EPA/NMEID requirements letter delivered to us at the January 31 meeting in Santa Fe, NM;

1.2.1.2 Conduct a second phase of sampling on those lagoons that result in a hazardous characterization as defined by the simple random sampling technique listed above;

1.2.1.3 Remove contaminated sludge and soil from those lagoons that exhibit chemical contaminants present at hazardous concentration levels as agreed upon in an approved closure plan;

1.2.1.4 Conduct verification sampling, using the simple random sampling technique to ensure cleanup criteria is met;

1.2.1.5 Continue groundwater monitoring.

1.2.2 Phase I - Identification/Characterization Sampling. The initial element in lagoon closure will be to evaluate the physical and chemical properties of the potential hazardous wastes. In order to develop a scientifically creditable plan, we will utilize the simple random sampling technique as detailed in SW846. This uses a representative sample size to statistically determine the hazardous nature of a solid waste. The hazardous conclusion is determined based on an applicable regulatory thresholds for specific contaminants. For closure of the sewage lagoons we will use acceptable regulatory thresholds for evaluation. The following procedure will be followed:

1.2.2.1 Based on previous sampling at lagoons A, B, and C, a specific list of contaminants of concern will be developed. This list will include those contaminants that are at regulatory threshold levels.

1.2.2.2 Preliminary estimates of the sample mean (x) and variance (s^2) will be made for the contaminants of concern and subsequently a sample size (n_1) will be determined.

1.2.2.3 Sampling protocols and procedures will be outlined in a sampling plan and submitted for regulatory approval. The sampling plan will contain the sample size for each lagoon, analytical requirements and sample point locations. N_1 sample points will be collected from each lagoon. Discrete level samples will be taken to assure that a three dimensional picture is obtained for each lagoon. Initially, two samples will be obtained for each point, one at the surface and one at an agreed upon depth. Each sample will be analyzed for an Appendix VIII list of hazardous constituents.

1.2.2.4 The agreed upon sample size will be obtained from each lagoon for analysis.

1.2.2.5 Based on the results of sampling, the initial list of contaminants of concern will be evaluated and any constituent additions or deletions will be made at that time. New x and s^2 values will be calculated and the statistical analysis performed. Additional samples may be taken in those lagoons which exhibit chemical contaminants present at hazardous levels to further delineate the extent contamination. Those lagoons that do not have contaminants present at hazardous levels will be considered "clean closed".

1.2.3 Phase II - Final Characterization. Phase II will finalize the characterization for the remaining lagoons. The additional samples required, $(n_2 - n_1)$ will be determined by the simple random sampling methodology. The following steps will be followed:

1.2.3.1 The $n_2 - n_1$ number of samples will be based on newly calculated x and s^2 values. This will be based on the revised list of contaminants of concern.

1.2.3.2 A revised sampling plan will be provided for regulatory agency review prior to initiation of field sampling efforts. Field samples will be collected at discrete depths, to be agreed upon. Analytical testing will be run only for those contaminants of concern that will have been previously mentioned and agreed upon. Upon approval of the revised sampling plan, collection and analysis of samples will be conducted.

1.2.3.3 After collection and analysis of the samples, a statistical analysis will again be completed and a determination will be made for those lagoons that have contaminant concentrations at hazardous levels. If at the end of this analysis the specified lagoons are still considered hazardous, a decision will be made on resampling, remediation or closure-in-place.

1.2.4 Sludge/Soil Removal. (To be addressed in closure plan)

1.2.5 Sample Verification. (Same as above, paragraph 1.2.3)