

1-HAFB95



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) 827-4389

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

June 28, 1995

William K. Honker, Chief
RCRA Permits Branch (6H-P)
U.S. EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733



Dear Mr. Honker:

RE: Request for inclusion of New Mexico Environment Department (NMED) comments in EPA's response to a October 1994, Holloman Air Force Base (HAFB) Table II, Phase I RFI Report.

NMED requests inclusion of the attached comments into EPA's Notice of Deficiency (NOD) response to HAFB's above referenced report. This Post-Permit Coordination procedure is in accordance with conditions specified in the Joint Permitting Agreement (JPA) between NMED and the EPA, specifically Section III, Paragraph S.3. The attachment has been mailed directly to the facility as NMED's "comments".

EPA Region 6 Facility Manager, Mr. Lowell Seaton, has been coordinated with in the preparation of these comments. He was faxed a very similar draft version previously. If you have any question or comments, please contact Mr. Stephen Pullen of my staff at (505) 827-4308.

Sincerely,

A handwritten signature in cursive script that reads "Benito Garcia".

Benito Garcia, Chief
Hazardous and Radioactive Materials Bureau

attachment



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) 827-4389

MARK E. WEIDLER
SECRETARY
EDGAR T. THORNTON, III
DEPUTY SECRETARY

June 28, 1995

Mr. Howard E. Moffitt
Deputy Base Civil Engineer
49 CES/CEV
550 Tabosa Ave.
Holloman Air Force Base

Dear Mr. Moffitt:

The New Mexico Environment Department (NMED) has reviewed the Table II, Phase I RCRA Facility Investigation (RFI) Report, dated October 1994. We offer the following comments.

General Comments:

1. As a reminder, the NMED established the precedent of disallowing continued contamination of the unprotected groundwater below Holloman Air Force Base (HAFB) in a letter to HAFB dated May 15, 1995 from Ed Kelley, Director of NMED's Water and Waste Management Division. To implement this policy, existing contaminant plumes must be adequately characterized and monitor wells in those plumes must be sampled often enough to determine if a contaminant release source exists. If contaminants at any point in an existing plume increase significantly in concentration, or if additional contaminants are discovered, further investigation may be required to locate and remediate the source of the contamination.

To comply with this policy, Holloman Air Force Base must propose and implement a groundwater monitoring plan for all SWMU sites where investigative data shows contamination below the water table.

2. Remediation of existing groundwater contamination will not be required by NMED at Holloman Air Force Base unless a situation is present where a human or ecological receptor is exposed to an unacceptable risk from contact with the contaminated groundwater. However, additional groundwater contamination will not be acceptable, regardless of groundwater quality, and the Environment Department will insist on remediation of any groundwater contamination resulting from current or future releases at Holloman AFB.

HAFB Table II Comments
Page 2

3. NMED policy requires that, when action levels exist for both residential and industrial exposure scenarios, as they do in the EPA Region III Risk Based Concentration (RBC) tables, HAFB must use the more conservative of the two (i.e. residential) to trigger the need for a Corrective Measure Study (CMS), regardless of current land use. This policy is consistent with both NMED's and EPA Region VI's regulation of HSWA corrective action at New Mexico RCRA facilities.

4. Action levels, such as those in the Region III RBC tables, are typically for single contaminants in a single medium, under standard default exposure parameters. HAFB must discuss the rationale for the proposed action levels being valid where there are multiple contaminants and/or multiple media are contaminated.

5. NMED considers that the delineation of the extent of contamination may be adequate, as required by a RFI, when a responsible party has investigated out to "action levels" in all directions. However, should a risk analysis determine that the action level concentrations at the boundary of the investigation represent an unacceptable risk, delineation within the particular environmental medium must continue until concentrations are diminished to an acceptable level. Please evaluate all SWMU investigations for completeness of delineation considering this criterion.

6. If a site is contaminated above action levels, and if a risk assessment suggests that the risk level is acceptable at the site based on other than the most conservative exposure scenario (i.e. residential), and if the appropriate regulatory agencies agree with the assessment, HAFB should be prepared to survey the contaminated area and enter the results of the risk assessment, along with the all its qualifiers, into a deed restriction for the particular site. This action is a state requirement for regulator concurrence on no-further-action (NFA) proposals. This requirement includes those "conditional" NFA sites that are proposed to be remediated to a specific level but not to complete clean closure.

7. Numerous Solid Waste Management Units (SWMUs), primarily oil/water separators and their associated storage tanks, are specified in the report for removal. Though the investigation results and the associated risk assessment might justify NFA for the SWMU, additional information about a possible release may be unearthed during the removal process. Therefore, NMED prefers to hold off concurring with the NFA proposal until those SWMUs are physically removed and a closure report justifying NFA has been received by the Department. Please provide schedule for the removal of all applicable SWMUs.

Numerous other SWMUs are specified to remain in operation

although environmental contaminants have been detected in association with those SWMUs, albeit at acceptable risk levels. NMED requires that HAFB determine conclusively that all those SWMUs do not continue to release contaminants to the environment, perhaps by performing the integrity tests originally called for in the RFI workplan. This will be a criteria for NFA concurrence by the state.

Other SWMUs that are not in operation and are not specified to be removed, yet have released contaminants to the environment, must either be properly abandoned according to the abandonment procedures specified in the New Mexico Underground Storage Tank Regulations, or a discharge plan may be required by the NMED pursuant to the New Mexico Water Quality Act. If HAFB decides not to properly close these SWMUs, they must submit a Notice of Intent (NOI) for these units as specified in the New Mexico Water Quality Control Commission Regulations 82-1 (as amended in 1993) to Ms. Marchell Schuman of the Ground Water Section of the Ground Water Protection and Remediation Bureau (GWPRB). Ms. Schuman may be contacted at (505) 827-2996.

8. NMED policy on the acceptable limits of an upper bound excess lifetime cancer risk matches that outlined in the RCRA proposed Subpart S, Corrective Action for Solid Waste Management Units, specifically between E-04 and E-06. This determination of acceptability must be based on a quantitative risk assessment using the standard EPA default parameters described in the Risk Assessment Guidance for Superfund. A risk management team at NMED will determine the acceptability of a NFA proposal at a site calculated to fall within the above mentioned range.

For clarification purposes, NMED requires that HAFB highlight any risk calculations that fall within or exceed that range and explain in more detail in the text how that calculation was made.

In this report, risk calculations that have fallen within the critical range are primarily based on inorganic concentrations that do not exceed the background Upper Tolerance Limits (UTLs) as calculated by Holloman AFB. Is this appropriate?

9. At numerous SWMUs, some mentioned in the "Site Specific Comments", borehole logs show that certain intervals had the highest headspace measurements, yet those same intervals were not submitted for laboratory analysis. If the most contaminated media associated with a SWMU were not analyzed to determine specific chemical concentrations, and thus that sample did not enter into the risk calculations, the risk assessment associated with that SWMU may be inadequate. Holloman must identify where this occurred and justify the associated risk calculations.

Site Specific Comments:

SWMUs 119/2, NMED cannot agree with the conclusion that "there does not appear to have been a release from this SWMU." The presence of both soil and groundwater contamination below the SWMUs, as well as the halon vapor monitoring system evidence of a leak, all substantiate a release. HAFB must correct this portion of the report.

The drilling log for hole number 002-B01 suggests the highest contaminated portion of the borehole, based on headspace analysis, is in the interval between 4 and 6 feet below ground level. Yet this interval was not submitted for laboratory analysis and therefore was not considered in the risk calculation. HAFB must justify why the risk calculations for this site are appropriate considering this fact.

SWMUs 15/120, HAFB should explain the "black stained" soils below the water table at this site.

SWMUs 17/121, NMED cannot agree with the NFA proposal for these two SWMUs. The presence of "strong black staining, strong petroleum odor" in the soils below the water table, and metals concentrations above background, suggest that one of these SWMUs leaks. Though risk levels may not pose a problem at this site, NMED will not tolerate a continued, uncontrolled release to the environment.

It appears that SWMU 121 may leak for a number of reasons. First, the SWMU was not investigated based on the negative results of the halon vapor monitoring system. NMED's experience is that this type of monitoring system is not always reliable. Second, the degree of contamination in the groundwater in hole number 017-B02, together with lack of contamination in the shallow portions of that borehole, suggests that the contamination most likely migrated to this location, possibly from SWMU 121. The southwesterly groundwater gradient has not been verified for this site. Finally, NMED believes there is a good chance that the tank is made of steel and may have corroded to the point of leaking. HAFB must conclusively show that both SWMU 17 and 121 are incapable of releasing contaminants to the environment.

HAFB must abide by the requirements outlined in General Comments 1 and 2 for these SWMUs.

SWMUs 21/22/123, Drilling logs were not provided for holes 021-B01, 022-B01, 022-B02 and 123-B03. Please provide these logs or explain the reason why they should not be included.

The quantitative risk assessment performed for this site calculated a future risk for on-site workers of between 1E-05 and

3E-05. This risk calculation seems to be based on arsenic concentrations, none of which exceeded background UTLs. Please explain this in the text so that the regulatory risk managers can take this into consideration.

Please justify the statement on page 4-30 that total recoverable petroleum hydrocarbon (TRPH) contamination is restricted to a small area. NMED requires that groundwater contamination must be adequately delineated in all directions to the analyte-specific trigger criteria listed in Table 3-1 .

Please verify whether these SWMUs still have a potential to release contaminants and whether there are plans to remove them from the subsurface.

SWMUs 32/125, Please clarify whether the oil/water separator is constructed to drain to the environment. The report describes a two chambered steel unit inside a concrete vault that has "drain rock" in the bottom. If this unit is in fact built to discharge to the environment, please submit a NOI to Ms. Schuman of the GWPRB.

The drilling log for hole number 032-B01 suggests that the highest contaminated portion of the borehole, based on headspace analysis, is in the interval between 3 and 5 feet below ground level. Yet this interval was not submitted for laboratory analysis and therefore was not considered in the risk calculation. HAFB must justify why the risk calculations for this site are appropriate considering this fact.

Please explain the discrepancy between the water table depths noted in the drilling logs for the two SWMUs. Do they suggest that the fire water tank in fact is leaking and creating a groundwater mound?

The visible contamination below the water table referenced on page 4-32 requires complete delineation and monitoring to ensure a release source does not continue to exist.

SWMUs 36/126, NMED cannot agree with the NFA proposal for SWMU 126 for the following reasons:

These SWMUs continue in operation and apparently leak. Though the risk evaluation suggests there is no risk to human health, HAFB cannot continue to release contaminants to the environment.

If HAFB is planning to remove these SWMUs, NMED would prefer to withhold concurrence on NFA until the removal action is complete and sampling below the unit confirms the appropriateness of NFA.

HAFB has not delineated the extent of contamination at this SWMU

group completely. Soil borings to 11 feet below ground level measured the highest concentrations of petroleum hydrocarbons at the total depth of borehole 036-B01, and groundwater was not evaluated.

Please explain why no semi-volatile organic compound (SVOC) analyses were performed on contaminated soils at this site, considering the nature of the units and the degree of contamination.

SWMUs 39/127/135, NMED agrees with the proposal to further delineate the soil contamination at this site and takes this opportunity to remind HAFB that this should include groundwater contamination.

It is not clear from the report whether these SWMUs are still in operation. These SWMUs obviously leak and HAFB must provide assurance that they will not receive more wastes.

Please explain the statement on page 4-57 that TRPH contamination "attenuates" with depth.

SWMUs 40/128/138, NMED cannot agree with the NFA proposal for SWMUs 40 and 128 for the following reasons.

SWMU 40 was not investigated based on the negative results of the halon vapor monitoring system. NMED's experience is that this type of monitoring system is not always reliable.

These SWMUs continue in operation and are built to release to an unlined pit. Though the risk evaluation suggests there is no risk to human health, HAFB cannot continue to release contaminants to the environment. If this unit is in fact built to discharge to the environment, please submit a NOI to Ms. Schuman of the GWPRB.

If HAFB is planning to remove these SWMUs, NMED would prefer to withhold concurrence on NFA until the removal action is complete and sampling confirms the appropriateness of NFA.

Please explain the discrepancies in the water table depths presented in drilling logs 040-B01, 040-B02 and 040-B03.

SWMUs 54/55, The quantitative risk assessment performed for this site calculated a future risk for on-site workers of 1E-05. This risk calculation seems to be based on arsenic concentrations, none of which exceeded background UTLs. Please explain this in the text so that the regulatory risk managers can take this into consideration. Please also explain whether this risk still exists after the removal of contaminated soils.

SWMU 56, Please explain why the visually contaminated soils were

HAFB Table II Comments
Page 7

not analyzed for SVOCs as was called for in the RFI work plan. Explain how this would affect the risk assessment performed for this site.

SWMU 63, NMED agrees with the NFA proposal for this site. However, NMED cannot agree with the conclusion that there has not been a release from this site. This is based on observed surface stains and the presence of chromium and lead concentrations above UTLs for background. Please adjust the report accordingly.

SWMU 71, NMED agrees with the NFA proposal for this site.

SWMU 78, HAFB must recognize the apparent groundwater contamination encountered in borehole 078-B01. Please explain the discrepancies between the drilling log descriptions and the analytical data for the above mentioned borehole.

SWMU 91, Please clarify whether the old oil/water separator and holding tank are currently receiving wastes.

SWMU 124, NMED agrees with the RFI findings and recommendation for NFA. However, because this tank was found to contain hazardous waste, HAFB must abide by the labeling, secondary containment, holding time, etc. requirements of 40 CFR 262.34 (1)(a)(ii).

SWMU 136, NMED agrees with the proposal to further delineate the soil contamination at this site and takes this opportunity to remind HAFB that this investigation should include groundwater contamination.

SWMU 155, NMED cannot agree with the NFA proposal for this SWMU. The considerable soil and groundwater contamination at this site must be fully delineated so that it might be distinguished from any possible contaminant problems downgradient at the sewage lagoons. For this reason, NMED requires HAFB to implement the monitoring requirements of General Comment #1.

SWMU 156, NMED cannot agree with the NFA proposal for this SWMU without an adequate commitment from HAFB to substantiate the possibility of a release from the sewer line west of this unit. The considerable soil and groundwater contamination at this site must be fully delineated so that it might be distinguished from any possible contaminant problems downgradient at the sewage lagoons. For this reason, NMED requires HAFB to implement the monitoring requirements of General Comment #1.

SWMU 164, If this unit is built to collect runoff from the flightline, HAFB must submit a NOI to Ms. Schuman of the GWPRB.

SWMU 183, NMED agrees with the proposal to further investigate this site.

SWMUs 118/132/AOC-A, HAFB must revise the Groundwater narrative regarding the claim that "all concentrations are below trigger criteria". Table 5.1-5 lists multiple pesticides that exceed trigger criteria. Also, the conclusions section states two items erroneously: First, heptachlor epoxide is a pesticide and therefore pesticides were detected in the soils above the trigger criteria. Second, pesticides were detected in the groundwater at concentrations above the trigger criteria as stated in Table 5.1-5.

As a reminder, NMED considers contaminant delineation complete when the distribution of contaminants with concentrations at or above action levels have been fully defined. This policy applies to both soil and groundwater.

Finally, if HAFB is going to base an acceptable risk determination on a limited recreational exposure scenario (i.e. a limit of 10 days/year for a child) then HAFB must assure that exposure frequency is not exceeded. Perhaps a maintained fence around this site would be acceptable.

SWMUs 129/178, HAFB must alter Figure 5.2-1 to reflect the statement in the text that the containment vessels south of Building 1192 were "open bottom sumps" and not tanks.

HAFB must mention and explain the discrepancy between the groundwater investigation results reported in the 1992 Remedial Investigation (RI) Report and this investigation. TRPH was discovered at considerable concentrations in all wells during the initial investigation but not in the subsequent one. HAFB must also justify not analyzing groundwaters for volatile organic compounds (VOCs) to confirm the presence of trichloroethene (TCE).

SWMUs 165/177/179/181, NMED cannot agree with the NFA proposal for these SWMUs for the following reasons:

NMED requires in this report an explanation of how SWMU 165 was initially identified and the measures taken to locate it. This will be a requirement for concurrence with NFA.

It is not clear how many of these SWMUs are still in operation. NMED requires HAFB to identify the current status and abide by General Comment #7 for this SWMU group.

HAFB must explain the high levels of organic vapors measured at the 8-10 foot depth in borehole 181-B02. Please explain this in regards to its relevance to the risk evaluation performed for

HAFB Table II Comments

Page 9

this site. NMED considers this may have been the discharge point for the TCE found in the groundwater and has concerns why the soils were not analyzed for this constituent.

HAFB has not identified the source of the extensive TCE plume in the groundwater below this site. NMED requires that HAFB implement the groundwater monitoring requirements explained in General Comment #1.

SWMU 184, Please identify in this report the relation between this SWMU and the sewage lagoons.

Please correct the reference to Part B Permit activities (i.e. closure investigations) and the EPA. NMED has been authorized for base RCRA by EPA and regulates these activities at the sewage lagoons.

Please telephone me at (505) 827-4308 or Mr. David Morgan at 827-2754 with any questions or comments.

Sincerely,

Stephen Pullen
Environmental Specialist
NMED DSMOA Group

xc: Benito Garcia, HRMB, NMED
Marcy Leavitt, GWPRB, NMED
Lowell Seaton, EPA
Warren Neff, HAFB