



GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544



MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 3, 1997

Howard E. Moffitt
Deputy Base Civil Engineer
49 CES/CEV; 550 Tabosa Ave
Holloman Air Force Base, N.M. 88330-8458

RE: APPROVAL OF RFI REPORT FOR 44 TABLE 2 SWMUs AND 2 AREAS OF CONCERN
EPA I.D. Number NM6572124422

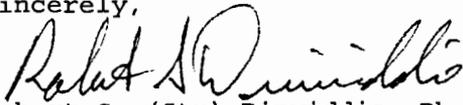
Dear Mr. Moffitt:

The Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) has completed review of the Holloman Air Force Base (HAFB) Table 2 RCRA Facility Investigation (RFI) Report for 44 solid waste management units (SWMUs) and 2 areas of concern (AOCs). The HRMB's review incorporated the RFI Report dated October 1994, the Revised RFI Report dated September 1997, and HAFB's response to HRMB's request for supplementary information of August 11, 1997.

Pursuant to its authority under the New Mexico Hazardous Waste Act, N.M.S.A. 74-4-1 et seq., and regulations promulgated pursuant thereto, and pursuant to Holloman Air Force Base's (HAFB's) Resource Conservation and Recovery Act Hazardous Waste Management Permit (Permit), HRMB approves the RFI Report for the subject Table 2 SWMUs. HRMB also authorizes HAFB to proceed with the next Phase of remediation activities of the petroleum-contaminated soil at those SWMUs where No Further Action (NFA) does not appear appropriate. In addition, HAFB must submit a request for Class 3 Permit Modification for those SWMUs listed in the enclosed Attachment.

If you have any questions regarding this matter, you may contact Jerry Bober or Cornelius Amindyas of my staff at (505) 827-1561.

Sincerely,


Robert S. (Stu) Dinwiddie, Ph.D., Manager
RCRA Permits Management Program
Hazardous and Radioactive Materials Bureau

cc: Benito Garcia, Chief HRMB
David Neleigh, EPA Region VI (6PD-N)
Allen Chang, EPA Region VI
Cornelius Amindyas, HRMB

FILE: HSWA, HAFB, 97, T₂
TRACK: HAFB, 10/3/97, HAFB, HRMB/CA, Approval of Table 2 RFI Report

ATTACHMENT

LIST OF TABLE 2 SWMUs THAT THE HRMB DEEMS APPROPRIATE FOR NFA

HOLLOMAN AIR FORCE BASE

October 7, 1997

Based upon HRMB's review of HAFB's September 1997 RFI Report for Table 2 SWMUs and related documents, the following are the solid waste management units (SWMUs) for which No Further Action (NFA) appears appropriate:

- 1) SWMU 2 ✓ - Building 121 Oil/Water Separator
- 2) SWMU 119 ✓ - Building 121 Waste Oil Tank
- 3) SWMU 15 ✓ - Building 309 Oil/Water Separator
- 4) SWMU 120 ✓ - Building 309 Waste Oil Tank
- 5) SWMU 17 ✓ - Building 316 Oil/Water Separator
- 6) SWMU 121 ✓ - Building 316 Waste Oil Tank
- 7) SWMU 21 ✓ - Building 702 Oil/Water Separator
- 8) SWMU 22 ✓ - Building 704 Oil/Water Separator
- 9) SWMU 123 ✓ - Building 704 Waste Oil Tank
- 10) SWMU 32 ✓ - Building 868 Oil/Water Separator
- 11) SWMU 125 ✓ - Building 868 Fire Water Tank
- 12) SWMU 40 ✓ - Building 1166 Oil/Water Separator
- 13) SWMU 128 ✓ - Building 1166 Waste Oil Tank
- 14) SWMU 138 ✓ - Oil/Water Separator Drainage Pit
- 15) SWMU 54 ✓ - Building 702 Waste Accumulation Area
- 16) SWMU 55 ✓ - Building 702A Waste Accumulation Area
- 17) SWMU 56 ✓ - Building 807 Test Cell Waste Accumulation Area
- 18) SWMU 63 ✓ - Building 867 Waste Accumulation Area
- 19) SWMU 71 ✓ - Building 1178A Waste Accumulation Area
- 20) SWMU 78 ✓ - Trim Pad 3 Waste Accumulation Area
- 21) SWMU 91 ✓ - Building 816 Washrack
- 22) SWMU 124 ✓ - Building 752 Waste Oil Tank
- 23) SWMU 155 ✓ - Sludge Drying Beds
- 24) SWMU 183 ✓ - Air Base Sewer System
- 25) SWMU 129 ✓ - Building 1191 and 1192 Spill Tanks
- 26) SWMU 178 ✓ - Building 1191 and 1192 Runoff Pits
- 27) SWMU 184 ✓ - Wastewater Recirculation Line

Please submit to the HRMB a request for Class 3 Permit Modification.

HAFB's RESPONSE TO NMED COMMENTS ON TABLE 2 RFI REPORT

WARREN NEFF
49 CES/CEVR

Note: The following responding comments correspond to those ⁱⁿ NMED's Request^s for Supplementary Information

General Comments

2. In 1993, HAFB submitted its RFI Work Plan for Table 2 to EPA and NMED. NMED provided comments to EPA and HAFB. The RFI was formally approved by EPA and HAFB executed the RFI in accordance with the Work Plan. This report, and associated risk assessments, were conducted in 1994 and used the most current (and approved) methodology for risk assessments. All EPA regions use the same algorithms from RAGS. Only certain assumptions vary, which generally accounts for only a 10% to 15% variation in output. Subpart S (FR072790) uses the same algorithms and in fact discusses the need for equivalency with Superfund. Only SWMUs 118, 123, and 132, had chemicals of concern (COCs) which approached the Region 3 screening levels used in the Table 2 RFI risk assessment. These areas have since been remediated and no longer have these COCs. Site-specific quantitative risk assessments were also conducted for SWMUs 118, 132, AOC-A, 54, 55, 123, 129, 178, 164, 21, and 22.

In 1995, EPA personnel (Lowell Seaton, Jeff Yurk, Steve Wohlers) and NMED personnel (Lee Winn, Steve Pullen) were given a tour of the Table 2 SWMUs. Both EPA risk assessors indicated that HAFB was doing an excellent job evaluating risk and in fact was on the conservative side. HAFB has compared the COCs to the new EPA Region 6 Media-Specific Screening levels and has found no additional SWMUs with COCs above these levels. Groundwater ingestion was not considered at those sites which had groundwater COCs since this is an incomplete pathway due to the groundwater being non-potable. However, HAFB has already initiated long-term groundwater monitoring at SWMUs 118, 132, AOC-A, 165, 177, 179, 181, 39, 127, and 135.

3. Of the SWMUs listed in Table 2, SWMUs 2, 119, 120, 17, 121, 21, 22, 123, 36, 126, 39, 127, 135, 40, 128, 138, 118, 132, AOC-A, 124, and 129 have been removed and the sites remediated. SWMUs 54, 55, 56, 63, 71, 78, 91, 101, 178, 136, 141, 155, 156, 164, 165, 177, 179, 181, and 184 are inactive and do not pose a risk to human health or the environment. SWMUs 15, 32, and 125 are active and the attached management plan has been in place since 1993 at HAFB. SWMU 183 was previously approved for NFA in 1995. AOC-U was evaluated for human and ecological risk and found to pose no threat to human health or the environment.

I will discuss all of the above in the cover letter.

3. Add acronyms to report.

4. Regarding HAFB's facility-wide and SWMU-specific groundwater monitoring plan, HAFB implemented a long-term groundwater monitoring (LTM) program at 21 SWMUs. Monitoring is conducted biennially for a period of 10 years. Sampling began in 1995 and a second round will be conducted this fall. The groundwater beneath HAFB is non-potable (<10,000 ppm TDS) and, therefore, is not protected by New Mexico Water Quality Control Commission Regulations. Also, letters submitted to HAFB by the New Mexico Environment Department (NMED) in 1993 and 1995 (Atch 2) require only removal of free product and remediation of soil above the water table. The SWMUs in this report, excluding SWMUs 118, 132, AOC-A, 165, 177, 179, and 181, are significantly smaller in size than those SWMUs currently undergoing LTM. The above mentioned SWMUs are already undergoing LTM and the workplan is attached. In addition, those sites which did have contamination have all had their "source" removed via excavation. Also, of those sites listed in this report that did have contamination not associated with total petroleum hydrocarbons (TPH), the levels were primarily in the low parts per billion range. Therefore, the need to monitor these sites is not necessary since the potential for migration is non-existent.

5. Add PID and OVA readings to report.

6. Indicate by "~~was/were not included~~" any new text to revised report.

SWMUs 2 and 119

Pg 4-5, Paragraph 1 The halon vapor monitoring system data was submitted in the approved RFI workplan.

The following sentence will be added to Para 1 "The halon vapor monitoring system data was submitted in the approved RFI workplan."

Table 4.1-1, Pg 4-6 The text discusses contamination of boring 002-B01, not 119-B02. The analytical for 002-B01 is in the table. Boring 119-B02 was not visibly stained and therefore was not sampled for SVOCs. Boring 002-B01 (9.5-10.5 ft) had the highest visible contamination and was therefore sampled. No text revisions.

Regarding the potential contamination, the following text will be take the place of the current Sec 4.1.5 Recommendations "NFA was recommended for SWMUs 119 and 2. The following information was not included in the 1994 Draft Final Phase I Table 2 Report. Neither unit was active and therefore both units were removed in 1996. As discussed in the approved Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico, July 1997, the highest soil TPH concentration was 43 mg/kg. TPH was not detected in any closure sample. Therefore, no soil required disposal. In addition, closure samples were also analyzed for VOCs and SVOCs. No VOCs were detected. SVOCs

were detected in Closure Sample 3 but levels were far below any risk screening criteria. Based on the above additional information, these SWMUs were recommended for NFA."

SWMUs 15 and 120

A monitoring plan (Guidance on Management of Oil/Water Separators) will be attached to letter. This will be discussed in cover letter.

SWMUs 17 and 121

Pg 4-17, Sec 4.3 Regarding the potential contamination, the following text will be take the place of the current Sec 4.3.5 Recommendations "NFA was recommended for SWMUs 17 and 121. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Both units were inactive and therefore were removed in July 1997 as part of Holloman's Phase II Basewide POL project. No soil exceeding the 1000 mg/kg soil TPH standard was found during the removal of SWMUs 17 and 121 and therefore no contaminated required disposal. Five confirmation samples were taken with the highest TPH concentration being 80 mg/kg. A more detailed account will be provided in the Addendum to the Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico to be submitted in September 1997."

Regarding the location of borings 017-B01 and 017-B02, the following text will be added to Sec 4.3.2 para 1: "Borings 017-B01 and 017-B02 were drilled approximately 5 ft and 3 ft from SWMU 17 respectively."

SWMUs 21, 22, and 123

Analytical results are in ppb not ppm.

Pg 4-30 Regarding the lack of boring logs for SWMUs 21 and 22, fill material was encountered at apx 4 ft which made for poor sample retrieval. Sec 4.4.2, para 1 will be revised as follows: "Boring logs with screening results are provided in Appendix D." will be replaced with "The following information was not provided in the 1994 Draft Final Phase I Table 2 RFI Report. Boring logs for SWMU 123 with screening results are provided in Appendix D. " "No boring logs are available for SWMUs 21 or 22 due to poor sample retrieval during sampling.

Regarding the potential contamination at SWMUs 21, 22, and 123, the following text will be take the place of the current Sec 4.4.5 Recommendations. SWMUs 21 and 22 were recommended for NFA while SWMU 123 was recommended for CNFA. Not included in the 1994 Draft Final Phase I Table 2 RFI Report was the fact that SWMUs 21, 22, and 123 were all removed as part of Holloman's Phase II Basewide POL project. No contaminated soil was encountered during the removal of SWMUs 21 or 22. TPH values for closure samples ranged from not-detected to 40 mg/kg. A more detailed account was

provided in the approved Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico submitted in July 1997. Apx 228 cubic yards of TPH-contaminated soil was excavated and disposed during the remediation of SWMU 123. TPH values for closure samples ranged from not-detected to 32 mg/kg, excluding one sample (4100 mg/kg) which was taken immediately adjacent to the foundation. No further excavation could be accomplished without impacting the integrity of the building. A more detailed account will be provided in the Addendum to the Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico to be submitted in September 1997."

SWMUs 32 and 125

No TPH over 1000 mg/kg were detected in any sample. The highest was 544 mg/kg (5-7 ft) and decreased to not-detected at 9-11 ft. SWMU 32 was a very small O/WS (apx 22 gal capacity) and was located in a concrete vault so the TPH found was certainly due to an unrelated activity, not poor integrity. Subsequent to this RFI, SWMU 32 was removed. No remediation was required since it was encased in a concrete vault..

SWMU 125 was sampled to apx 4 ft below unit but only samples from 3-5 ft were retrievable due to the soil below this zone being fill material (gravel) put in as part of the construction of the unit. This unit was installed in 1986. As its name implies, its purpose is to hold fire suppression water, not oil. SWMU 32 had an oil storage chamber and was not constructed to transfer oil to the Fire Water Tank. SWMU 125 was constructed to store water from fire suppression activities. Bldg 868 is not a maintenance hanger so the need for SWMU 32 did not exist and the unit was removed. SWMU 125 remains in service to collect water after fire suppression testing. This unit receives no potentially hazardous waste and therefore is recommended for NFA.

Pg 4-39, Sec 4.5.5, Recommendations will be revised to state that "NFA is recommended for SWMUs 32 and 125. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Subsequent to the submission of the 1994 Draft Final Phase I Table 2 RFI Report, SWMU 32 was removed. No remediation was required since it was encased in a concrete vault." SWMU 125 was constructed to store water from fire suppression testing activities, not solid waste. SWMU 125 was also found to have good integrity and is therefore recommended for NFA."

SWMUs 36 and 126

Headspace reading for boring 126-B01 are included on the drilling log for this boring in Appendix III.

Pg 4-44 Semivolatiles were inadvertently not performed. To compensate for this oversight, semivolatiles were analyzed during the remediation for closure. Pg 4-42, Sec 4.6.2, Analytical Results, will be revised as follows: "No soil samples were analyzed for

semivolatile organic compounds.” will be replaced by “The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report: Semivolatile analyses were inadvertently not performed. However, due to this oversight, HAFB performed 8270 analysis during the remediation of these SWMUs during the Basewide Phase II POL project.”

Regarding the potential contamination at SWMUs 26 and 126, the following text will be take the place of the current Sec 4.6.5 Recommendations “SWMU 126 was recommended for NFA and SWMU 36 was recommended for CNFA. However, both SWMUs were removed as part of Holloman’s Basewide POL Phase I project in September 1996. Approximately 185 cubic yards of TPH-contaminated soil were excavated and disposed. TPH closure samples ranged from not-detected to 67 mg/kg. No semivolatile compounds were detected in any of the closure samples or the stockpiled soil. BTEX was detected in one closure sample, but only at 0.5 mg/kg. Further details can be found in the approved Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico submitted in July 1997.

✓ ✓ ✓
SWMUs 39, 127, and 135

No boring logs were performed for SWMU 135 because hand auger samples were taken (0-1 ft). I will discuss in cover letter.

Pg 4-57, Sec 4.7.5 Recommendations will be revised to state: “The following information was not available for the 1994 Draft Final Phase I Table 2 RFI Report. Additional investigation was conducted at these SWMUs in 1995 as part of the Table 1 Phase II RFI. Ten soil borings were drilled during the Table 1 Phase II RFI in order to delineate the horizontal and vertical extent of contamination. TRPH ranged from not detected to 11, 500 mg/kg. “Maximum detections for BTEX were: benzene (4.5 ppm), toluene (0.36 ppm), ethylbenzene (2.3 ppm), and xylenes (0.56 ppm).“The highest concentrations of the chlorinated solvents were: 1,1,1-trichloroethane (2.0 ppm), 1,1-dichloroethane (0.06 ppm), 1,1-dichloroethene (0.01 ppm), and trichloroethene (0.001 ppm).” Further information can be found in the Final Phase II RCRA Facility Investigation Report Table 1 Solid Waste Management Units submitted in June 1997. In addition, these SWMUs, along with SWMU 170, are undergoing remediation using a bioventing system constructed in June 1996. The approved Final Construction Workplan for IRP Site FT-31, Fire Training Area Bioventing System, Holloman Air Force Base, New Mexico, July 1997 details the construction and remediation strategy for these SWMUs. The system is scheduled to operate through 1998.”

✓ ✓ ✓
SWMUs 40, 128 and 138

SWMU 128 was listed for informational purposes only. It was investigated as part of the Table 3 RFI conducted in 1995. No borings logs were generated for SWMU 138 since hand auger samples were taken.

Pg 4-64, Recommendations will be revised to state: "The following information was not available for the 1994 Draft Final Phase I Table 2 RFI Report. SWMU 138 was recommended for CNFA and was remediated under the Basewide Phase I POL Remediation project. In July 1995, apx 15 cubic yards of TPH-contaminated soil were excavated. No soil required disposal since the TPH did not exceed 1000 mg/kg. Confirmation TPH samples ranged from not-detected to 30 mg/kg. No volatile organic compounds were detected. Further details of site activities can be found in Remediation of POL-Contaminated Sites and Oil/Water Separator Removals, Holloman Air Force Base, New Mexico, July-November 1995 submitted February 1996. SWMUs 40 and 128 were recommended for NFA. However, since these units were no longer active, they were removed and remediated under HAFB's Basewide Phase II POL project. TPH did not exceed 1000 mg/kg in any soil samples. Confirmation samples for TPH ranged from 32 mg/kg to 220 mg/kg. Further details can be found in the approved Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico submitted in July 1997.

SWMUs 54 and 55

Boring logs, including headspace readings are included in Appendix D.

Pg 4-72, Sec 4.8.5, Recommendations will be revised to state: "The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Surficial contaminated soil (0-2 ft) was detected during the RFI. In 1994, an addition to Bldg 702 was constructed. Prior to construction, surficial soil samples were taken for TPH, VOCs, SVOC, and metals. No VOCs or SVOCs were detected. Only TPH at 21,000 was detected in one sample. The TPH-contaminated soil was excavated. This activity was overseen by environmental personnel. Visual screening was used to determine nature and extent to direct excavation activities. No confirmation samples were taken. The soil was taken to the base landfill where it was landfarmed Based on this additional information, NFA is recommended for SWMU 54."

SWMU 56

Headspace readings for 056-B02 will be included in final report.

SWMU 63

Only one boring was conducted at this site (063-01). The other four samples were hand auger samples and therefore do not have boring logs. Revise first sentence of Sec 4.11.2 to state that "One soil boring and five hand augers were"

SWMU 78

Rarely do field PID readings and laboratory analytical results correlate. The PID is primarily a screening tool to determine which samples to submit for analysis. PID

readings can also be affected by humidity (soil moisture) and other environmental conditions HAFB therefore recommends NFA for SWMU 78. I will discuss PID readings in the cover letter.

Pg 4-94, Sec 4.13.5, Recommendations will be revised to state "No visible contamination was present above the water table. SWMU 78 was only active from 1984 to 1987 and records kept during this time were collected and maintained. No indication that petroleum hydrocarbons (i.e., fuels, oils, etc) were stored at this site exist. Some solvents containing VOCs were stored at the site but none of the four samples analyzed for VOCs had VOCs. HAFB did analyze samples from all four soil borings for VOCs. The only VOCs detected were acetone and methylene chloride with the highest results being 77.4 ppb and 13.8 ppb, respectively. Acetone was also blank detected and methylene chloride is also a common lab contaminant. With no VOCs detected in samples taken directly above the water table, the potential for groundwater contamination is minimal and the likelihood that any migration could occur does not appear to exist. Therefore, there is no need to sample groundwater at SWMU 78. HAFB therefore recommends NFA for SWMU 78."

SWMU 91

The soil at 4-6 ft was saturated and therefore could not be submitted for analysis in accordance with the approved workplan. Therefore, the sample from 0-2 ft was analyzed. Since only VOCs and SVOCs which are lab contaminants were detected in this sample No TPH was detected in either soil sample and therefore this site is recommended for NFA.

Pg 4-94 ,Sec 4.13.5, Recommendations will be revised to state that "No TPH was detected in either sample and no volatile or semivolatile organic compounds were detected in the sample that were not blank detected. Therefore SWMU 91 is recommended for NFA."

SWMU 124

No boring logs exist for this site since the sample was taken with an hand auger.

Pg 4-100, Sec 4.15.1, Release history will be revised to state that "Although a small release (apx 10 gal) was supposed to have occurred at the site, no staining, except for a very small area (apx 1 ft dia) was seen during the RFI. The tank contents were sampled and determined to be non-hazardous (Table 4.15-2). The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. The contents were removed from the tank and disposed of in 1994. The tank was subsequently turned in to DRMO to be recycled. The small amount of stained soil detected during the RFI was disposed of with the contents of the tank and therefore the stained soil is no longer present."

As per the approved workplan, a surficial soil sample (0-0.333 ft) was taken. Soil TPH from the hand auger was less than 1000 mg/kg (840 mg/kg). The site has been inactive for over three years and the tank is no longer present. Therefore, HAFB recommends NFA for SWMU 124.

Pg 4-104, Recommendations will be revised to state that "NFA is recommended for SWMU 124. The waste oil tank, its non-hazardous contents, and the small amount of stained soil (0.05 cubic yards) were removed and disposed of appropriately. This site has been inactive since 1991 and therefore is recommended for NFA."

SWMU 136

Pg 4-106, Sec 4.16.2, Site Investigation and Results, will be modified by adding this as the second to last paragraph in the section: "The contamination at this site was limited to TPH at levels which do not pose a threat to groundwater. Also, the limited number of volatile and semi-volatile organic compounds detected in soil samples from the site are all in the ug/kg range and are adsorbed onto the soil. Therefore, the potential for groundwater contamination is negligible and the need to sample groundwater does not exist."

Regarding Pg 4-110, Recommendations, this section will be revised to state that "CNFA is recommended; the condition of NFA is remediation of TRPH-contaminated soil. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. The remediation is being accomplished using a bioventing system. The Final Construction Workplan for the SWMU 36, Building 1119 Washrack Drainage Pit Soil, Bioventing System, Holloman Air Force Base, New Mexico, May 1997 was approved in July 1997. The system has been operational since May 1997 and is anticipated to operate through 1998 at which time confirmation borings will be taken to document that site soil TPH levels are less than 1000 mg/kg."

There is no direct correlation between field PID readings and laboratory analytical results. PIDs are used primarily for field screening and are not a quantitative indicator of contamination. It is common for heavy oils or weathered fuels to have low PID readings and high analytical results. On the other hand, it is common to have high PID readings and low analytical results on more volatile fuels or solvents containing VOCs. The contamination at SWMU 136 is obviously older, weathered oil/fuel. Therefore, low PID readings are expected.

SWMU 155

Samples were taken with hand augers and therefore no boring logs were generated. The detection limits stated in Table 4.17-1 are in ug/kg not mg/kg. However, variations in detection limits are a function of total analysis concentrations, that is, the total sum

concentration of all contaminants present. Also, matrix effects in soil are very common, especially with inorganics, resulting in large variations in detection limits. Maximum selenium concentration was 2.61 mg/kg. Base background UTL for selenium is 10.53 mg/kg. The residential risk level for selenium in soil is 380 mg/kg. Chromium was detected at a maximum of 8.48 mg/kg. The residential risk level is 210 mg/kg. Benzene was only detected at 0.009 mg/kg, ethyl benzene at 0.88 mg/kg, and xylene at 2.1 mg/kg, all below any risk level. All other constituents fall below risk levels as well and therefore SWMU 155 is recommended for NFA. However, this site, along with SWMUs 156, and 184 are located within the fenced boundary of the former sewage lagoons (IRP Site WP-49) and as such will be restricted as required by NMED in the approved Sewage Lagoons Closure Plan. I will address this in the cover letter.

SWMU 156

All pesticides were detected far below any risk standard. Analytical results are in ug/kg, not mg/kg. I will discuss in cover letter.

SWMU 164

The highest VOC detected was xylene at 105 mg/kg, far below the residential screen of 980 mg/kg. Benzene was only detected in one sample (164-A06) at 0.28 mg/kg. Therefore, this SWMU is recommended for NFA. I will discuss this in cover letter.

SWMU 183

Attach copy of Phase II RCRA Facility Investigation Air Base Sewer System and a copy of approval letter. I will discuss in cover letter.

AOC-U

Samples were collected with a hand auger and therefore soil borings were not generated.

SWMUs 118, 132, and AOC-A

The nature and extent of pesticide and VOC contamination was delineated during the Phase I Table 1 RFI and the Phase I Table 2 RFI. In addition, approximately 107 cubic yards of contaminated soil were excavated and disposed in December 1996 as part of Holloman's Phase II Basewide POL project. TPH concentrations in confirmation samples ranged from not-detected to 370 mg/kg. PCBs, the only contaminants above trigger criteria, were not detected in any closure sample. Neither were pesticides. Further details will be provided in the *Addendum to the Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico* to be submitted in September 1997."

No samples were composited for VOC analysis.

Long-term groundwater monitoring of SWMUs 118, 132, and AOC-A will begin in September 1997 as part of Holloman's basewide monitoring program. Groundwater samples will be analyzed for VOCs and pesticides. Since the source of these chemicals has been removed via excavation, groundwater concentrations are expected to decrease through time.

Pg 5-24, Sec 5.1.5, Recommendations will be revised to state that: "The nature and extent of pesticide and VOC contamination was delineated during the Phase I Table 1 RFI and the Phase I Table 2 RFI. Therefore, CNFA was recommended for NFA in the 1994 Draft Final Phase I Table 2 RFI Report; the condition of NFA was remediation of TRPH-contaminated soil. The following information was not included in the 1994 Draft Final Phase I Table 2 RFI Report. Approximately 107 cubic yards of contaminated soil were excavated and disposed in December 1996 as part of Holloman's Phase II Basewide POL project. TPH concentrations in confirmation samples ranged from not-detected to 370 mg/kg. PCBs, the only contaminants above trigger criteria, were not detected in any closure sample. Neither were pesticides. Further details will be provided in the Addendum to the approved Final Closure Report for Phase II Remediation of (POL) Contaminated Sites And O/WS And WOT Removals, Holloman Air Force Base, New Mexico to be submitted in September 1997. Long-term groundwater monitoring of SWMUs 118, 132, and AOC-A will begin in September 1997 as part of Holloman's basewide monitoring program. Groundwater samples will be analyzed for VOCs and pesticides. Since the source of these chemicals has been removed via excavation, groundwater concentrations are expected to decrease through time."

SWMUs 129 and 178

During the Phase II RFI, groundwater samples were analyzed for TPH and SVOCs. Neither were detected in any groundwater sample. No VOCs, except TCE (detected in only one sample at 24 ug/l) were detected during the Phase I Table I RFI conducted in 1991. Other VOCs were intermittently detected but were also blank detected or detected at levels below the acceptable instrument's detection limit. VOC samples were not composited as stated in the NOD.

The lead detected in sample 129-A20 (1430 mg/kg) (industrial Region 6 lead screen is 2000 mg/kg) was taken from a metal drainpipe within a concrete slab. Samples cannot be taken below the sampled depth because it was taken at the bottom of the drain. This site is abandoned and is located in a remote area.

The only TPH detected in soil above 1000 mg/kg was sample 129-A18 at 1430 mg/kg. This area was excavated in July 1995 as part of Holloman's Phase I Basewide POL project. Approximately 30 cubic yards were excavated and disposed. Confirmation samples ranged from not-detected to 180 mg/kg. Further details can be found in the *Remediation of POL-Contaminated Sites and Oil/Water Separator Removals, Holloman Air Force Base, New Mexico, July-November 1995* submitted February 1996.

Pg 5-50, Sec 5.2.4, Conclusions will be revised to state that "During the Phase II RFI, groundwater samples were analyzed for TPH and SVOCs. Neither were detected in any groundwater sample. No VOCs, except TCE (detected in only one sample at 24 ug/l) were detected during the Phase I Table I RFI conducted in 1991. Other VOCs were intermittently detected but were also blank detected or detected at levels below the acceptable instrument's detection limit. The lead detected in sample 129-A20 (1430 mg/kg) (industrial Region 6 lead screen is 2000 mg/kg) was taken from a metal drainpipe within a concrete slab. Samples cannot be taken below the sampled depth because it was taken at the bottom of the drain. This site is abandoned and is located in a remote area."

The only TPH detected in soil above 1000 mg/kg was sample 129-A18 at 1430 mg/kg

Pg 5-50, Sec 5.2.5, Recommendations will be revised to state that "CNFA was recommended for this site in the 1994 Draft Final Phase I Table 2 RFI Report. The condition of NFA was the remediation of TRPH-contaminated soil. This area was excavated in July 1995 as part of Holloman's Phase I Basewide POL project. Approximately 30 cubic yards were excavated and disposed. Confirmation samples ranged from not-detected to 180 mg/kg. Further details can be found in the in Remediation of POL-Contaminated Sites and Oil/Water Separator Removals, Holloman Air Force Base, New Mexico, July-November 1995 submitted February 1996."

SWMUs 165, 177, 179, 181

X
No → The extent of groundwater contamination has been established. Fifteen hydropunch samples and four monitoring wells were installed under the Table I Phase I RFI and the Table 2 Phase I RFI. TCE, the groundwater COC for this site was at a maximum concentration of 2730 ug/l near SWMU 177 (the interpreted source of the TCE) to not-detected downgradient of SWMU 177. Excluding the not-detected sample, two other locations downgradient of SWMU 177 had TCE detections at 32 ug/l and 39 ug/l, two orders of magnitude less than the concentration at SWMU 177, indicating the source is SWMU 177 and the plume has been characterized. Therefore, these SWMUs are recommended for CNFA, with the condition being (LTM.)

SWMUs 165, 177, 179, and 181 have been added to Holloman's long-term groundwater monitoring program and will be sampled in September 1997. Groundwater samples will be analyzed for VOCs.

Pg 5-63, Conclusions will be revised by adding the following "The extent of groundwater contamination has been established. Fifteen hydropunch samples and four monitoring wells were installed under the Table I Phase I RFI and the Table 2 Phase I RFI. Trichloroethene, the groundwater COC for this site was at a maximum concentration of 2730 ug/l near SWMU 177 (the interpreted source of the trichloroethene) to not-detected downgradient of SWMU 177. Excluding the not-detected sample, two other locations downgradient of SWMU 177 had TCE detections at 32 ug/l and 39 ug/l, two orders of

magnitude less than the concentration at SWMU 177, indicating the source is SWMU 177 and the plume has been characterized."

Pg 5-69, Recommendations will be modified to state that "NFA was recommended in the 1994 Draft Final Phase I Table 2 RFI Report. The following was not included in the 1994 Draft Final Phase I Table 2 RFI Report. After further evaluation, this site is recommended for CNFA; the condition of NFA is long-term groundwater monitoring (LTM) for volatile organic compounds. These SWMUs will be sampled in September 1997 as part of Holloman's biennial basewide LTM program."

SWMU 75

Regulate permit

This is HAFB's TSDf and should never have been added to the HSWA permit. As a TSDf, it is a permitted unit which will require closure, but not under HSWA. The request to remove this erroneous addition to our HSWA permit was included in our Class 3 modification request submitted in 1993. I will discuss in cover letter.

NFA (permitted)