

HAFB 2002

DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO



MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT

Mr. Cornelius Amindyas
NMED-HWB
4131 Montgomery NE
Albuquerque, NM 87109

6-SEP 2002

SEP 2002

FROM: 49 CES/CEV
550 Tabosa Avenue
Holloman AFB NM 88330-8458

SUBJECT: Hazardous and Solid Waste Amendments (HSWA) Quarterly Report for Jan – Mar 2002 and Apr – Jun 2002, EPA ID NM6572124422

1. In accordance with Module IV, Section E, of the Holloman AFB HSWA permit, attached please find the Jan – Mar 2002 and the Apr – Jun 2002 quarterly reports.
2. If you have any questions, please contact Mr. Dan Holmquist at (505) 572-5395.

A handwritten signature in black ink that reads "John R. Poland".

JOHN R. POLAND, REM
Chief, Environmental Flight

Attachments:

HSWA Quarterly Report, Jan – Mar 2002
HSWA Quarterly Report, Apr – Jun 2002

cc (w/Atchs):

Mr. James P. Bearzi
NMED-HWB
P.O. Box 26110
Santa Fe NM 87502

Attn: Allen Chang
USEPA, Region 6 (6 PD-N)
1445 Ross Ave, Ste 1200
Dallas TX 75202-2733

7001-1940-0002-2179-4935
CERTIFIED MAIL NO.
RETURN RECEIPT REQUESTED

Global Power for America

HOLLOMAN AIR FORCE BASE, NM

HAZARDOUS AND SOLID WASTE AMENDMENT

QUARTERLY REPORTS

EPA ID NM6572124422

JAN-MAR 2002

ATCH 1

I. INTRODUCTION

A. Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended by the RCRA Statute (42 U.S.C. 6701, et seq.), as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984, a permit has been issued to Holloman Air Force Base (HAFB or Holloman) to operate a hazardous waste disposal facility.

B. This Quarterly Report is consistent with the terms and conditions of Module IV of Holloman's Environmental Protection Agency (EPA) permit identification number NM6572124422. Module IV is also commonly referred to as the "HSWA permit" as its primary focus is requirements resulting from the HSWA.

II. SUMMARY OF FINDINGS

A. SWMUs 39, 127, 135, 170, 171 (ERP Site FT-31): The bioventing system, operational since Aug 96, continued to run through the first quarter. The system covers the entire site that is divided into three sections: the North Area (an area containing SWMUs 39, 127 and 135, excavated to cleanup goals in Sep 99), the South Area (SWMU 170) and the East Area (SWMU 171). SWMU 171 was given NFA status in Feb 01. A closure report recommending NFA at the North Area SWMUs was finalized and submitted during the first quarter of 2002. The system operated for 2,016 hours during this reporting period.

An Excavation Plan for the entire site will be prepared during the third quarter of 2002. The Plan will specify field requirements necessary to meet closure requirements at the site. Actual fieldwork is scheduled to begin at the beginning of the fourth quarter of 2002.

B. SWMU 123: A closure report, dated Apr 99, was submitted to NMED for review and recommended NFA. The NMED's Hazardous Waste Bureau (HWB) reviewed the report and submitted a Notice of Deficiency (NOD) dated 17 Aug 01. Holloman began work on a letter workplan for the site during the first quarter of 2002. The workplan will address all issues identified in the NMED NOD and is scheduled for submittal to NMED during the third quarter of 2002.

C. SWMU 133 (ERP Site SD-47): The bioventing system at this site has remediated the soil to NMED soil cleanup levels. The system was shut down in Jan 98 and a NFA proposal submitted to NMED. Final NFA approval was granted by NMED on 6 Feb 01. Decommissioning of the site's remedial system will occur during the fourth quarter of 2002.

D. SWMU 136: A bioventing system, put into operation in Apr 97, was removed from the site in Sep 99 so that existing contaminated soil could be excavated. The excavation was part of a removal action to accelerate site cleanup. Excavation activity was completed in Dec 99.

A draft closure report was completed in Feb 00 that included excavation activities at SWMU 39, 127, 135 (site FT-31 North Area) and SWMU 136. However, final approval of the report was postponed due to discussions at NMED's Hazardous Waste Bureau (HWB) of possibly changing cleanup levels for Holloman. These discussions included a draft guidance paper addressing a Total Petroleum Hydrocarbon (TPH) based cleanup level. The TPH guidance was never finalized and, at that point, Holloman pursued finalizing the report.

Holloman decided that the initial draft report would be divided into two reports covering site FT-31 and SWMU 136, respectively. These reports were submitted to NMED in during the first quarter of 2002.

E. SWMUs 139 and 140: In a NMED-HWB letter dated 30 Aug 00, Holloman received notice of an approval of NFA at Lake Holloman (SWMU 139) and Lake Stinky (SWMU 140). The decision for NFA was based on NMED's review of the HAFB Jun 97 document *Final Characterization Summary and No Further Action (NFA) Documentation: SWMUs 139 (Lake Holloman and the Ditch) and 140 (Lake Stinky)*", and the 1996 "Draft Final Risk Assessment Addendum for the Sewage Lagoons Closure Project".

A Class 3 permit modification will be submitted to remove the units from Table A.1. However, no schedule has been set for this action until HAFB is able to conduct a complete review of units on Table A.1 to identify other eligible units. The base will work with its HWB facility manager to identify these units.

F. SWMUs 148-154 (ERP Site WP-49): The former sewage lagoons have been out of service since 1996. Construction activities associated with the closure began in the fall of 1996. Construction activities were completed in Dec 97. Final activity, including revegetation, fence repairs and deed notification preparation and filing were completed during the second half of 1998. The closure report was submitted to NMED in Jul 99 and the 1999 long-term groundwater monitoring (LTM) program report was submitted in Jan 00. The lagoons were inspected by the state in early 2000 to determine compliance with the closure requirements. NMED approved final closure of the lagoons in a 30 Jun 00 letter including the 1999 LTM report recommending ceasing groundwater LTM.

Holloman is working with the EPA Region VI office to finalize closure of the 1988 Federal Facility Compliance Agreement and transfer any remaining requirements into the base's RCRA Part B permit. However, due to higher priorities, the Region VI office recommended that Holloman AFB provide a list of FFCA requirements and resolutions to verify their completions. Holloman will continue to work with the Region VI office to close out the FFCA.

G. SWMU 229 (ERP Site SS-59): The T-38 Test Cell site, i.e., SWMU 229, uses a high vacuum dual phase extraction (HVDPE) remedial system. The system removes both subsurface vapor and liquid phases of the contaminant. The primary contaminant at the site is JP-4 jet fuel.

The system was shut down on March 3, 2002 and remained down throughout the reporting period to perform fluid level measurements and minor system maintenance. The system operated for 1,408 hours and approximately 2,301 lbs of contaminant were removed during this reporting period.

H. SWMU 230 (ERP Site SS-60): The original remedial system, also an HDVPE unit, operated as a bioventing system since 25 Jun 99. The system was shut down on 12 Feb 01 following final state NFA approval per NMED letter dated 6 Feb 01.

The system operated a total of 2,952 hours from Oct 00 through 12 Feb 01. Approximately 21,555 pounds of contaminant were removed from the site since system startup in May 96. Decommissioning of the system (e.g., unit disassembly, proper well abandonment, etc.) is scheduled for the fourth quarter of 2002.

I. AOC-T (ERP Site SS-05): The soil vapor extraction (SVE) system at AOC-T, the POL Spill Sites, continued to operate throughout the quarter with periodic shutdowns for minor maintenance. The system operated for 1,498 hours during this reporting period.

In Nov 99, free product was discovered on the water table during routine soil sampling. Distribution lines and fuel transfer stations were immediately checked for leaks but none were identified. Two flexible axial peristaltic (FAP) pumps were added to the system in Feb 00 as an interim remedial action. An additional 816 gallons of LNAPL have since been removed using the FAP pumps. An additional 55,627 lbs of vapor-phase fuel has been recovered via the SVE system.

J. AOC-Q (ERP Site SS-17): A SVE system, installed in Sep 95, operates at the site. The system is designed to remove gasoline vapors from the vadose zone proximal to the base service station. The system is comprised of 16 soil vapor recovery trenches, 24 pressure/vapor monitoring probes and a TOU. Three additional groundwater depression trenches were previously used in conjunction with the SVE to lower the groundwater table in the site's vicinity. No fuel product remains on the groundwater table, therefore, the trenches are no longer needed and are to be removed and filled during the fourth quarter of 2002. The system operated for 2,160 hours and approximately 363 lbs vapor-phase fuel were recovered during this reporting period.

An Excavation Plan for the entire site will be prepared during the third quarter of 2002. The Plan will specify field requirements necessary to meet closure requirements at the site. Actual fieldwork is scheduled to begin at the beginning of the fourth quarter of 2002.

K. AOC-V (ERP Site SS-57): The remedial system at AOC-V consists of an air sparge/SVE system and has been operational since Nov 96. The system is designed to remove contaminant in the vapor phase from the vadose zone and liquid phase contaminant from the saturated zone. The system operated for approximately 1,092 hours during this reporting period. Holloman anticipates attaining cleanup levels during 2002 and verifying closure with DPT soil sampling. A risk assessment is also scheduled for this site. Closure documentation will be prepared for the site in late 2002 or early 2003. System operations will be limited through the remainder of the year.

L. AOC-1 (DP-64), Chemical Agent Site: One ampoule of Mustard Agent and one ampoule of dilute Lewisite were discovered in March 2000 just north of the former Main Base Landfill. These ampoules were believed to be part of a chemical agent identification sets (CAISs). The CAIS's were used from the early 1930's through the late 1950's to assist military personnel in identifying chemical agents. Mustard agent was used as a blistering agent and lewisite was used as a choking agent.

A Safety Submission Plan or workplan is currently being for the site and is expected to be finalized during the third quarter of 2002. If funding is approved for 2003, an interim remedial action will be conducted at the site per the Safety Submission Plan.

M. AOC -3 (DP-63), Ammunition Disposal Pit: A PA/SI was conducted at DP-63 in March and April 2000. During the PA/SI, a geophysical survey was performed to evaluate the location and extent of abandoned ammunition disposal pits in the area and determine whether past releases at the site had impacted soil and groundwater.

In response to recommendations of the PA/SI, a remedial investigation (RI) will be conducted at the site during the third quarter of 2002. The RI will further define nature and extent of soil and groundwater contamination at the site.

N. AOC-4, West POL Fuel Spill Site: In October and November 1999, an investigation was conducted to determine the nature and extent of soil and groundwater contamination in the area that is currently designated the West POL Yard. The area is an active facility that serves as a fueling center for tanker trucks that service aircraft in the west area of the Base. In July 1999, West POL Yard facility personnel noted that the leak-detection system installed at the site indicated a leak in a subsurface line located on the east side of the fueling area. In 1999, direct-push technology (DPT) was used to collect soil samples at 30 locations and evaluate the extent of soil contamination and free-phase product.

An Excavation Plan for the entire site will be prepared during the third quarter of 2002. The Plan will specify field requirements necessary to meet closure requirements at the site. Fieldwork is also scheduled to begin during the third quarter of 2002.

IV. CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Daniel K. Holmquist _____

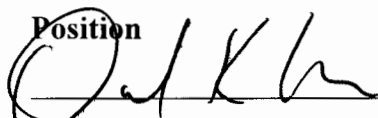
Name

49 CES/CEVR _____

Organization

Remedial Project Manager _____

Position

 9/5/02

Signature/Date

HOLLOMAN AIR FORCE BASE, NM

HAZARDOUS AND SOLID WASTE AMENDMENT

QUARTERLY REPORTS

EPA ID NM6572124422

APR-JUN 2002

I. INTRODUCTION

A. Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended by the RCRA Statute (42 U.S.C. 6701, et seq.), as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984, a permit has been issued to Holloman Air Force Base (HAFB or Holloman) to operate a hazardous waste storage facility.

B. This Quarterly Report is consistent with the terms and conditions of Module IV of Holloman's Environmental Protection Agency (EPA) permit identification number NM6572124422. Module IV is also commonly referred to as the "HSWA permit" as its primary focus is requirements resulting from the HSWA.

II. STATUS OF SITE WORK COMPLETED

A. Table A.1 is a list of Solid Waste Management Units (SWMU) and Areas-of-Concern (AOC) listed on Holloman's HSWA permit as currently requiring corrective actions. Also, changes resulting from the NMED's Annual Unit Audit (AUA) for calendar year 2001 pursuant to 20.4.2.201.1 NMAC (New Mexico Administrative Code) are included (ref Holloman memo dated 17 May 02, Requested Changes for the Annual Unit Audit for Calendar Year 2001).

The following Areas of Concern (AOC) have been added to Table A.1 (Environmental Restoration Program (ERP) identification given in parenthesis):

- AOC-1 (DP-64), Chemical Agent Site
- AOC -2, Sewage drainage Pit, NE of Bldg 864
- AOC-3 (DP-63), Ammunition Disposal Pit
- AOC-4, West POL Fuel Spill Site
- AOC-1001 (SS-61), Bldg 1001 Fuel Spill Site
- AOC-FST837, Bldg 837 Fuel Septic Tank

III. SUMMARY OF FINDINGS

A. SWMUs 39, 127, 135, 170, 171 (ERP Site FT-31): The bioventing system, operational since Aug 96, continued to run through the second quarter. The system covers the entire site that is divided into three sections: the North Area (an area containing SWMUs 39, 127 and 135, excavated to cleanup goals in Sep 99), the South Area (SWMU 170) and the East Area (SWMU 171). SWMU 171 was given NFA status in Feb 01. A closure report recommending NFA at the North Area SWMUs was finalized and submitted in April 2002. The system operate for 1,464 hours during this reporting period. In June, system operations were suspended. Further remedial action at this site will consist of excavating soils above the NMED action levels.

An Excavation Plan for the entire site will be prepared during the third quarter of 2002. The Plan will specify field requirements necessary to meet closure requirements at the site. Actual fieldwork is scheduled to begin at the beginning of the fourth quarter of 2002.

B. SWMU 123: A closure report, dated Apr 99, was submitted to NMED for review and recommended NFA. The NMED's Hazardous Waste Bureau (HWB) reviewed the report and submitted a Notice of Deficiency (NOD) dated 17 Aug 01. Holloman was preparing a letter workplan for the site during the second quarter of 2002. The workplan will address all issues identified in the NMED NOD and is scheduled for submittal to NMED during the third quarter of 2002.

C. SWMU 133 (ERP Site SD-47): The bioventing system at this site has remediated the soil to NMED soil cleanup levels. The system was shut down in Jan 98 and a NFA proposal submitted to NMED. Final NFA approval was granted by NMED on 6 Feb 01. Decommissioning of the site's remedial system will occur during the fourth quarter of 2002.

D. SWMU 136: A bioventing system, put into operation in Apr 97, was removed from the site in Sep 99 so that existing contaminated soil could be excavated. The excavation was part of a removal action to accelerate site cleanup. Excavation activity was completed in Dec 99.

A draft closure report was completed in Feb 00 that included excavation activities at SWMU 39, 127, 135 (site FT-31 North Area) and SWMU 136. However, final approval of the report was postponed due to discussions at NMED's Hazardous Waste Bureau (HWB) of possibly changing cleanup levels for Holloman. These discussions included a draft guidance paper addressing a Total Petroleum Hydrocarbon (TPH) based cleanup level. The TPH guidance was never finalized and, at that point, Holloman pursued finalizing the report.

Holloman decided that the initial draft report would be divided into two reports covering site FT-31 and SWMU 136, respectively. These reports were submitted to NMED in April 2002.

E. SWMUs 139 and 140: In a NMED-HWB letter dated 30 Aug 00, Holloman received notice of an approval of NFA at Lake Holloman (SWMU 139) and Lake Stinky (SWMU 140). The decision for NFA was based on NMED's review of the HAFB Jun 97 document *Final Characterization Summary and No Further Action (NFA) Documentation: SWMUs 139 (Lake Holloman and the Ditch) and 140 (Lake Stinky)*", and the 1996 "*Draft Final Risk Assessment Addendum for the Sewage Lagoons Closure Project*".

A Class 3 permit modification will be submitted to remove the units from Table A.1. However, no schedule has been set for this action until HAFB is able to conduct a complete review of units on Table A.1 to identify other eligible units. The base will work with its HWB facility manager to identify these units.

F. SWMUs 148-154 (ERP Site WP-49): The former sewage lagoons have been out of service since 1996. Construction activities associated with the closure began in the fall of 1996. Construction activities were completed in Dec 97. Final activity, including revegetation, fence repairs and deed notification preparation and filing were completed during the second half of 1998. The closure report was submitted to NMED in Jul 99 and the 1999 long-term groundwater monitoring (LTM) program report was submitted in Jan 00. The lagoons were inspected by the state in early 2000 to determine compliance with the closure requirements. NMED approved final closure of the lagoons in a 30 Jun 00 letter including the 1999 LTM report recommending ceasing groundwater LTM. Minimal cap maintenance activities were conducted during the quarter.

Holloman is working with the EPA Region VI office to finalize closure of the 1988 Federal Facility Compliance Agreement and transfer any remaining requirements into the base's RCRA Part B permit. However, due to higher priorities, the Region VI office recommended that Holloman AFB provide a list of FFCA requirements and resolutions to verify their completions. Holloman will continue to work with the Region VI office to close out the FFCA.

G. SWMU 229 (ERP Site SS-59): The T-38 Test Cell site, i.e., SWMU 229, uses a high vacuum dual phase extraction (HVDPE) remedial system. The system removes both subsurface vapor and liquid phases of the contaminant. The primary contaminant at the site is JP-4 jet fuel. The system operated for 1,177 hours during this reporting period. Approximately 7,250 lbs of contaminant was removed during this time. Operational down time during this quarter was primarily attributed to warranty repairs to the thermal oxidation combustion chamber.

A pilot test workplan to determine the feasibility of excavating the remaining contaminated soil at the site and removing free product during excavation activities will be prepared during the fourth quarter of 2002. The actual pilot test is scheduled for the first quarter of 2003.

H. SWMU 230 (ERP Site SS-60): The original remedial system, also an HDVPE unit, operated as a bioventing system since 25 Jun 99. The system was shut down on 12 Feb 01 following final state NFA approval per NMED letter dated 6 Feb 01.

The system operated a total of 2,952 hours from Oct 00 through 12 Feb 01. Approximately 21,555 pounds of contaminant were removed from the site since system startup in May 96. Decommissioning of the system (e.g., unit disassembly, proper well abandonment, etc.) is scheduled for the fourth quarter of 2002.

I. AOC-T (ERP Site SS-02/05): The soil vapor extraction (SVE) system at AOC-T, the POL Spill Sites, continued to operate during this quarter with periodic shutdowns for minor maintenance. The system operated for 1,832 hours during this quarter.

In Nov 99, free product was discovered on the water table during routine soil sampling. Distribution lines and fuel transfer stations were immediately checked for leaks but none were identified. Two flexible axial peristaltic (FAP) pumps were added to the system in Feb 00 as an interim remedial action. Approximately 8819 gallons of LNAPL have since been removed using the FAP pumps and absorbent socks. A total of approximately 56,292 lbs of vapor-phase fuel has been recovered from the SVE system.

Additional site investigative activity to identify the source of the LNAPL is scheduled for July 2002. The scheduled work includes installation of additional wells and additional DPT soil sampling.

J. AOC-Q (ERP Site SS-17): A SVE system, installed in Sep 95, operates at the site. The system is designed to remove gasoline vapors from the vadose zone proximal to the base service station. The system is comprised of 16 soil vapor recovery trenches, 24 pressure/vapor monitoring probes and a TOU. Three additional groundwater depression trenches were previously used in conjunction with the SVE to lower the groundwater table in the site's vicinity. No fuel product remains on the groundwater table, therefore, the trenches are no longer needed and are to be removed and filled during the fourth quarter of 2002. The system operated for 696 hours during this reporting period. Approximately 278 lbs of contamination were recovered. In June, system operations were

suspended. Further remediation at this site will consist of excavating soils above the NMED action levels.

An Excavation Plan for the entire site will be prepared during the third quarter of 2002. The Plan will specify field requirements necessary to meet closure requirements at the site. Actual fieldwork is scheduled to begin at the beginning of the fourth quarter of 2002.

K. AOC-V (ERP Site SS-57): The remedial system at AOC-V consists of an air sparge/SVE system and has been operational since Nov 96. The system is designed to remove contaminant in the vapor phase from the vadose zone and liquid phase contaminant from the saturated zone. The system operated for approximately 321 hours during this quarter. Holloman anticipates attaining cleanup levels during 2002 and verifying closure with DPT soil sampling. A risk assessment is also scheduled for this site. Closure documentation will be prepared for the site in late 2002 or early 2003. In June, system operations were suspended.

L. AOC-1 (DP-64), Chemical Agent Site: One ampoule of Mustard Agent and one ampoule of dilute Lewisite were discovered in March 2000 just north of the former Main Base Landfill. These ampoules were believed to be part of chemical agent identification sets (CAISs). The CAIS's were used from the early 1930's through the late 1950's to assist military personnel in identifying chemical agents. Mustard agent was used as a blistering agent and lewisite was used as a choking agent.

A Safety Submission Plan or workplan is currently being for the site and is expected to be finalized during the third quarter of 2002. If funding is approved for 2003, an interim remedial action will be conducted at the site per the Safety Submission Plan.

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In response to recommendations of the PA/SI, a remedial investigation (RI) will be conducted at the site during the third quarter of 2002. The RI will further define nature and extent of soil and groundwater contamination at the site.

N. AOC-4, West POL Fuel Spill Site: In October and November 1999, an investigation was conducted to determine the nature and extent of soil and groundwater contamination in the area that is currently designated the West POL Yard. The area is an active facility that serves as a fueling center for tanker trucks that service aircraft in the west area of the Base. In July 1999, West POL Yard facility personnel noted that the leak-detection system installed at the site indicated a leak in a subsurface line located on the east side of the fueling area. In 1999, direct-push technology (DPT) was used to collect soil samples at 30 locations and evaluate the extent of soil contamination and free-phase product.

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Daniel K. Holmquist _____

Name

49 CES/CEVR _____

Organization

Remedial Project Manager _____

Position

Daniel K Holmquist 9/5/02 _____

Signature/Date