



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 377TH AIR BASE WING (AFMC)



JAN 30 2012



Mr. Thomas Berardinelli  
377 ABW/DS  
2000 Wyoming Blvd SE  
Kirtland AFB NM 87117-5606

Mr. John Kieling, Manager  
RCRA Permits Management Program  
Hazardous Waste Bureau (HWB)  
New Mexico Environment Department (NMED)  
2905 Rodeo Park Road  
Santa Fe NM 87505

Dear Mr. Kieling

Kirtland Air Force Base (AFB) is pleased to submit the quarterly RCRA Corrective Action Report for the period 01 October – 31 December 2011, as required by the conditions set forth in our Hazardous and Solid Waste Amendments (HSWA) permit, Module IV, Section E.

This report includes the quarterly reporting requirements stipulated in the 3 June 2004 Agency Initiated Modification to Kirtland AFB's RCRA Permit.

Please contact Ms. Victoria R. Martinez at (505) 846-6362 or at [victoria.martinez@kirtland.af.mil](mailto:victoria.martinez@kirtland.af.mil) if you have any questions.

Sincerely

THOMAS F. BERARDINELLI  
Director of Staff

Attachment:  
RCRA CA Quarterly Report 01 October – 31 December 2011

- cc:
- NMED-HWB (Mr. Moats, Mr. McDonald)
- NMED-GWQB (Mr. Swanson, B (Mr. Faris, Mr. Olson
- NMED-PSTB (Mr. Reuter)
- EPA Region 6 (Ms. King)
- HQ AFMC/A7AQ (Mr. McCann)
- /A7A1 (Mr. Fort)
- AFCEE/CMSE (Mr. Oyelowo)
- /EXEC (Mr. Urrutia)
- USACE Omaha (Mr. Zink)
- Shaw Environmental (Mr. Cooper)
- CH2M HILL (Ms. Minchak)
- TLI Solutions (Mr. Swanson)
- HGL (Ms. McNamara)
- EA Engineering (Ms. Radu)
- Public Info Repository (Central New Mexico)
- Community College Montoya Campus
- 377 MSG/CEAN
- File

KAFB3844





**ENVIRONMENTAL RESTORATION PROGRAM  
KIRTLAND AIR FORCE BASE, NEW MEXICO**

***RESOURCE CONSERVATION AND RECOVERY ACT*  
CORRECTIVE ACTION QUARTERLY REPORT  
1 OCTOBER 2011 THROUGH 31 DECEMBER 2011  
EPA ID NM9570024423**

**January 2012**

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**40 CFR 270.11  
DOCUMENT CERTIFICATION  
JANUARY 2012**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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.



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JOHN C. KUBINEC, Colonel, USAF  
Commander

This document has been approved for public release in accordance with Department of Defense Directives and Air Force Instructions.



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KIRTLAND AIR FORCE BASE  
377th ABW Public Affairs

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## I. INTRODUCTION

- A. Pursuant to the Solid Waste Disposal Act, as amended by the *Resource Conservation and Recovery Act (RCRA)*, as amended by RCRA Statute (42 U.S.C. 6701, *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), a permit was issued to Kirtland Air Force Base (AFB) to operate a hazardous waste disposal facility (EPA ID NM9570024423, July 2010).
- B. This Quarterly Report is consistent with the terms and conditions of the permit found under HSWA Module IV, Section E.

## II. DESCRIPTION OF WORK COMPLETED

The following tables list the Solid Waste Management Units (SWMUs) in Module IV, areas of concern (AOCs), and sites not regulated under RCRA. Corrective action at these sites is conducted under the Kirtland AFB Environmental Restoration Program (ERP) and the Environmental Compliance Program (ECP). Each Kirtland AFB ERP or ECP site listed below includes the SWMU number, the Kirtland AFB identification number, and the site name.

SWMU	KAFB No.	Site Name
6-1	LF-001	Landfill No. 1
6-2	LF-002	Landfill No. 2
6-3	LF-007	Landfill No. 3
6-4	LF-008	Landfill 4, 5, & 6
LF-268	LF-268	Active Landfill
6-24	WP-016	Manzano Sewage Treatment Facility
6-30	RW-006	Radioactive Burial 11
10-2-A	ST-325	Corrosion Control Shop, Storm Drain, Bldg 482
10-2-B	ST-220	Paint Shop, Bldg 1001, Storm Drain
10-2-C	ST-220	Plating & Anodizing, Bldg 1001, Storm Drain
10-2-D	ST-329	Propulsion Branch Floor Drains, Bldg 336
10-2-F	ST-325	H-3/H-53, Phase Dock, Bldg 1000 Floor Drains
10-2-G	ST-331	C-130 Maintenance Shop Bldg 1009, Storm Sewer
10-2-H	ST-285	West Storm Sewer System
10-2-I	ST-286	East Storm Sewer System
10-7-V	ST-267	Oil/Water Separator, Bldg 57007
10-21-A	ST-287	Bldg 525 Septic System
10-21-B	ST-288	Bldg 614 Septic System
	ST-289	Bldgs 617/620 Septic System
	ST-290	Bldg 619 Septic System
	ST-291	Bldg 617 Septic System
	ST-292	Bldg 622 Septic System
10-21-C	ST-294	Bldg 633 Septic System
	ST-295	Bldg 638 Septic System
10-21-D	ST-296	Bldg 702 Septic System
	ST-297	Bldg 707 Septic System
	ST-298	Bldgs 730 & 734 Septic System
	ST-299	Bldg 751 Septic System
10-21-E	ST-300	Bldg 20199 Septic System
10-21-F	ST-301	Bldg 20560 Septic System
10-21-G	ST-302	Bldg 20599 Septic System
10-21-H	ST-303	Bldg 20749 Septic System
10-21-I	ST-304	Bldg 20797 Septic System

<b>SWMU</b>	<b>KAFB No.</b>	<b>Site Name</b>
10-21-J	ST-305	Bldg 28054 Septic System
	ST-306	Bldg 28054 Septic System
10-21-K	ST-307	Bldg 30101 Septic System
	ST-315	Bldg 30102 Septic System
10-21-L	ST-308	Bldg 37511 Septic System
10-21-M	ST-309	Bldg 37504 Septic System
10-21-N	ST-310	Bldgs 37507,37508 & 37513 Septic System
	ST-322	Bldgs 37507,37508, & 37513 Septic System
10-21-O	ST-311	Plant 1 and Bldg 37501 Septic System
10-21-P	ST-312	Plant 2 and Bldg 37503 Septic System
10-21-Q	ST-313	Bldgs 37529/37530 Septic System
10-21-R	ST-293	Bldg 37570 Septic System
10-21-S	ST-314	Bldgs 48056 & 48059 Septic System
10-21-T	ST-316	Bldgs 57003/57012 Septic System, CERF
	ST-317	Bldg 57011 Septic System, CERF
ST-340	ST-340	Bldgs 57001 and 57002 Septic System, CERF
10-21-U	ST-318	Bldg 37200 Septic System
10-21-V	ST-319	Bldg 37541 Septic System
10-21-W	ST-320	Bldg 20149 Septic System
10-21-X	ST-323	Bldg 29042 Septic System
10-21-Y	ST-324	Bldg 29051 Septic System
10-21-Z	ST-330	Bldg 1032 Septic System
10-21-AA	ST-333	Bldg 66001 Septic System, SOR
	ST-342	Bldg 66029 Septic System, SOR
	ST-343	Bldgs 66000/66008 Septic System, SOR
	ST-344	Bldg 66042 Septic System, SOR
	ST-345	Bldg 66006 Septic System, SOR
10-21-BB	ST-346	Trestle Site Septic Tank
ST-70-A	ST-070	Bldg 333/334 OWS & Sediment Trap (Former ST-202 & ST-203)
ST-70-B	ST-070	Bldg 377 OWS, Tank, & Drying Rack (Former ST-210)
ST-70-C	ST-070	Bldg 381, Oil/Water Separator (Former ST-211)
ST-70-D	ST-070	Bldg 471, 2 Oil/Water Separators (Former ST-215 & ST-216)
ST-70-E	ST-070	Bldgs 481/482 Oil/Water Separator (Former ST-219)
ST-70-F	ST-070	Bldg 2637 Oil/Water Separator (Former ST-247)
ST-70-G	ST-070	Bldg 20205 Oil/Water Separator (Former ST-248)
ST-70-H	ST-070	Bldg 20375 Oil/Water Separator (Former ST-258)
ST-70-I	ST-070	Bldg 20422 Oil/Water Separator (Former ST-260)
ST-73	ST-073	CERF Drain
DP-88	DP-088	Trestle Site Disposal Area
WP-26	WP-026	Sewage Lagoons & Golf Course Pond
SS-102	SS-102	ARES Test Facility
ST-109	ST-109	Acetone Spill Site
SS-110	SS-110	Bldg 376 Spill Site
RW-68	RW-068	Radium Dump/Slag Pile & Cratering Area ( <i>Reopened</i> )
DP-67	DP-67	Three Mine Shafts ( <i>Reopened</i> )
6-19	OT-029	EOD Range ( <i>to be closed with the Open Burn/Open Detonation Unit</i> )
N/A	ST-105	Trichloroethene (TCE) and Nitrate Contaminated Groundwater <sup>a</sup>
N/A	ST-106	Spill At Bulk Fuels Facility
N/A	SS-111	Bulk Fuels Facility Phase-Separated Hydrocarbon (PSH)

<sup>a</sup> The Nitrate Contaminated Groundwater portion at ST-105 is regulated by the New Mexico Environment Department Ground Water Quality Bureau (NMED-GWQB). The TCE contaminated groundwater at ST-105 is regulated by the NMED-Hazardous Waste Bureau (NMED-HWB).

## SWMUs With Final NFA Approval

SWMU	KAFB No.	Site Name
<b>Class 3 Permit Modification Dated 28 August 2003</b>		
6-7	LF-018	Landfill A
6-10	LF-009	Abandoned Landfill
6-15	LF-045	Unnamed Dump
6-16	FT-013	Kirtland Fire Training Area
8-53	ST-335	Paint Shop Floor Drain Bldg 20681
8-58	ST-321	Battery Storage Area, Bldg 57007
10-3	ST-249	Waste Oil Storage Tank Bldg 20205
ST-66	ST-066	Trestle Facility Oil/Water Separator and Pit
RW-68	RW-068	Radium Dump/Slag Pile & Cratering Area
SS-76	SS-076	Fuel Tank Burn Area
SS-83	SS-083	Skeet Range & Landfill Road
ST-326	ST-326	Waste Oil Storage Tank Bldg 20375
ST-328	ST-328	BOP Site Cesspools
<b>Class 3 Permit Modification Dated 3 August 2005</b>		
06-A1	RW-021	Radioactive Burial Site 7
08-49	SS-061	Bldg 20677 Fuel Shop Battery Storage Area (ST-275)
DP-067	DP-067	Three Mine Shafts
LF-056	LF-056	Landfill D
OT-086	OT-086	Former Small Arms Firing Range Disposal Pit Building 29015
RW-085	RW-085	Manzano Maintenance Building
SS-065	SS-065	Horizontal Dipole Drum Rack
SS-082	SS-082	ALECS Facility
SS-103	SS-103	Jet Engine Test Fuel Line
ST-059	ST-059	ART Drum
ST-060	ST-060	Armament Research Test (ART) Facility Drain Pit
<b>Class 3 Permit Modification Dated 21 September 2005</b>		
06-08	LF-015	Landfill B
06-29	LF-020	Manzano Landfill ("Manzano Dump")
06-A2-A	RW-004	Radioactive Holding Tank RB-4
06-A2-B	RW-005	Radioactive Holding Tank RB-5
06-A2-C	RW-017	Radioactive Holding Tank RB-6
06-A2-D	RW-019	Radioactive Holding Tank RB-8
06-A2-E	RW-023	Radioactive Holding Tank RB-9
08-13	ST-071	Bldg 1000/1001 Oil/Water Separator (Formerly ST-221)
09-14	ST-270	Buried Caustic Drain Line Bldg 617
09-15	ST-271	Neutralization Pit Bldg 617
09-16	ST-272	Evaporation/Infiltration Pond Bldg 617
10-21-OO	ST-355	Riding Stables Residence
10-21-S	ST-353	Building 48057 Septic Tank
10-21-S	ST-354	Sheep Grooming Septic Tank
OT-010	OT-010	Radiation Training Sites 5-8 (TS5, TS6, TS7)
RW-075	RW-075	South Tijeras Radiation Trench
SS-069	SS-069	Drum Storage Area
ST-100	ST-100	Coyote Springs Cess Pool
ST-341	ST-341	Condensate Tank Bldg 1033
WP-058	WP-058	East Laundry Bldg 20451
<b>Class 3 Permit Modification Dated 29 November 2005</b>		
10-7-A	ST-204	Sediment Trap Bldg 333
	ST-205	Oil/Water Separator Bldg 333
10-7-B	ST-206	Oil/Water Separator Bldg 336
	ST-207	Oil/Water Separator Bldg 336
	ST-208	Oil/Water Separator Bldg 336
	ST-209	Catch Basin Bldg 336

SWMU	KAFB No.	Site Name
10-7-C	ST-212	Oil/Water Separator Bldg 381

- SWMU WP-26, Sewage Lagoons and Golf Course Main Pond: Continue preparation of the well installation and sampling report for field activities completed in July through September 2011.

**C. Risk Assessment:**

1. **Ecological Risk:** No planned activities.
2. **Human Health Risk:** No planned activities.

**D. Corrective Measures Study:**

1. **Work Plans:** No planned activities.
2. **Field Work and Study:** No planned activities.
3. **Reports:** No planned activity.

**E. Accelerated and Interim Corrective Measures (ACMs/ICMs):**

1. **Work Plans:**

- SWMU ST-70-E, Oil/Water Separator (OWS) (ST-070): The Uniform Federal Policy Quality Assurance Project Plan will be completed.

2. **Field Work:**

- SWMU ST-70-E (ST-070, Former ST-219): Ongoing field sampling activities and operation of SVE system will continue during the quarter. Quarterly vapor and groundwater sampling will occur in the next quarter. A rebound study is scheduled for January through April 2012.

3. **Reports:**

- SWMU ST-70-E, Oil/Water Separator (OWS) (ST-070): The July to December 2011 ICM Report will be completed and submitted.

**F. Corrective Measures:**

1. **Designs:** No planned activities.

2. **Implementation:** No planned activities.

3. **Remedial Action Operation:**

- SWMU 6-1, Landfill 1 (LF-001): Monthly inspections of the condition of the landfill ET cover will continue and cover repairs will be initiated, as required. Quarterly monitoring well gauging will be performed as scheduled in January 2012.

- SWMU 6-2, Landfill 2 (LF-002): Monthly inspections of the

- SWMU 6-4, Landfills 4, 5, and 6 (LF-008): Monthly inspections of the condition of the landfill ET cover will continue and cover repairs will be completed. Quarterly monitoring well gauging will be performed as scheduled in January 2012.

4. **Reports:** No planned activities.

**G. Other Investigations and Activities:**

1. **Groundwater Monitoring (Long Term Monitoring [LTM] and Maintenance and Monitoring [M&M]):**

- Collect quarterly groundwater elevation measurements for 10 groundwater monitoring wells.

2. **Base-Wide Background and Hydrogeology:** No planned activities.

3. **TCE Characterization and Abatement (ST-105):**

- AOC ST-105, Trichloroethene-Contaminated Groundwater: Conduct quarterly groundwater sampling at five groundwater monitoring wells.

4. **Nitrate Contamination (ST-105):**

- Nitrate-contaminated groundwater will continue to be extracted from well KAFB-7 to provide mass removal and hydraulic containment of the nitrate plume. The nitrate-contaminated groundwater will continue to be conveyed to the Tijeras Arroyo Golf Course Main Pond for irrigation use.
- Semi-annual sampling for the spring 2012 event is planned for March 2012.

5. **No Further Action:**

- Preparation and submittal of a Class 3 permit modification may proceed for sites that receive NFA suitability letters from the NMED-HWB.

6. **Base-Wide Plans:** No planned activities.

7. **Bulk Fuels Facility Spill SWMUs ST-106 and SS-111:**

- Operation and optimization efforts for the SVE remediation systems at the former fuel offloading rack, KAFB-1065, KAFB-1066, and KAFB-1068 will be ongoing during –Quarter 1 2012.
- Pre-remedy quarterly monitoring will be initiated in January 2012. This will include groundwater sampling of the existing and additional newly installed monitoring wells, sampling of the Kirtland AFB production wells KAFB-3, KAFB-15, and KAFB-16, and VA-2. Also included will be vapor sampling at all existing Bulk Fuels Facility soil vapor monitoring and extraction wells, and water and LNAPL measurements.

- Monthly sampling will be ongoing at the VA-2 well and the compliance point for KAFB production wells 15 and 16 in Quarter 1 2012.
- Pneulog testing will be performed during Quarter 1 2012.
- Development of the containment well KAFB-106157 and installation of the extraction system wells will be initiated during Quarter 1 2012.
- The interim measure investigation at the offloading rack will be ongoing during the next quarter with direct push sampling and analysis associated with the step out locations.
- The Bulk Fuels Facility Quarter 4 Pre-Remedy Monitoring and Site Investigation Report for October – December 2011 will be submitted to NMED in March 2012.
- Plans submitted during this quarter will be finalized pending review from NMED.

**8. UST Site 58:**

- Annual groundwater sampling is planned for March 2012.

**9. RW-006:**

- Final Status Survey report was submitted to the USAF Radioisotope Committee, which was approved and delivered to the Nuclear Regulatory Commission (NRC). Once final approval is obtained from the NRC, NMED will be provided with the final document.

**H. Public Meeting:**

- Kirtland AFB public meetings are held on a semi-annual basis. No public meetings are scheduled for the first quarter of 2012.

**I. MMRP**

***PROVIDED FOR INFORMATIONAL PURPOSES ONLY***

- Remedial Investigation and NFA reports for multiple MMRP areas will continue to be prepared.
- Submittal to EPA Region 6 of the Final Abbreviated Remedial Investigation for MMRP sites TS775 and TS776 Skeet Ranges.