
**ENTERED**  
**DEPARTMENT OF THE**  
 US ARMY INSTALLATION MANAGEMENT COMMAND  
 HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT BLISS  
 1741 MARSHALL ROAD  
 FORT BLISS, TEXAS 79916



Directorate of Public Works

Mr. Kevin Pierard  
 Chief, Hazardous Waste Bureau  
 New Mexico Environment Department  
 2905 Rodeo Park Drive East, Building 1  
 Santa Fe, NM 87505-6303


Dear Mr. Pierard:

The Directorate of Public Works, Environmental Division requests a 15-year post-closure care duration for sites where the timeframe is not specified. Currently, the three Solid Waste Management Unit (SWMU) landfill sites are subject to post-closure care (see table below), but only the SWMU-18, McGregor Range Camp Landfill, has a defined period of 15 years. Due to the similarities of the sites, it is assumed that those sites with durations not specified would also be under a 15-year post-closure care timeframe.

Site ID	Fort Bliss Report to Obtain Post-closure Care Status	NMED Response (see enclosed letters)	Post-Closure Care Duration
<u>SWMU-18</u> McGregor Range Camp Landfill	Post Closure Certification Report for McGregor Range Camp (SWMU-18), Fort Bliss Military Reservation, March 2005.	Approval of Post Closure Certification Report for McGregor Range Camp (SWMU-18), June 2007.	15 years from October 8, 2004 (approval date)
<u>SWMU-27</u> Doña Ana Range Camp Rubble Landfill	Post Closure Certification Report for Doña Ana Range Camp Landfill (SWMU-27), Fort Bliss, March 2005.	Approval of Post Closure Certification Report for Doña Ana Range Camp Landfill (SWMU-27), October 2007.	<u>Not specified</u>
<u>SWMU-29</u> Doña Ana Range Camp Sanitary Landfill	SWMU-29 Adjacent Areas Run-on Controls Report, Doña Ana Range Camp, January 2008.	SWMU-29, Adjacent Areas Run-On Control, Doña Ana Range Camp, May 2008.	<u>Not specified</u>

For questions or issues contact Mr. Jesus D. Moncada, Chief, Compliance Branch, Environmental Division, Directorate of Public Works at (915) 568-2632 or by email: [jesus.d.moncada.civ@mail.mil](mailto:jesus.d.moncada.civ@mail.mil).

Respectfully,

  
 Alfredo J. Riera, P.E.  
 Director of Public Works

Enclosure



BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

NEW MEXICO  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

2905 Rodeo Park Drive East, Building 1  
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[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



RON CURRY  
Secretary

JON GOLDSTEIN  
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 27, 2008

Keith Landreth  
Attn: ATZC-DOE (Landreth)  
Bldg. 624  
1733 Pleasonton Road  
Fort Bliss, New Mexico 79916-6812

**RE: APPROVAL**  
**FTBL-11/SWMU-29, ADJACENT AREAS RUN-ON CONTROL,**  
**DOÑA ANA RANGE CAMP**  
**FORT BLISS, EPA ID NO. NM4213720101**  
**HWB-FB-08-001**

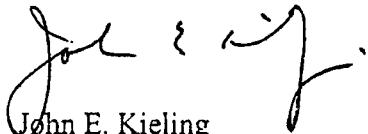
Dear Mr. Landreth:

The New Mexico Environment Department (NMED) has completed its review of the Fort Bliss's (the Permittee's) document *FTBL-11/SWMU-29 Adjacent Areas Run-on Control, Doña Ana Range Camp* (Report), dated January 2008. NMED hereby approves the Report. Based on the information provided in the Report, the design and construction of the diversion channel and the berm upgradient from Solid Waste Management Unit (SWMU) 29 will prevent surface water from flowing onto SWMU 29 and diminish future risk of transport of contaminants from the waste. The Permittee must conduct annual inspections of the run-on controls and landfill cover and submit photographs and descriptions of the site conditions to NMED annually.

Mr. Landreth  
May 27, 2008  
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Please contact Swarna Latha Vonteddu at (505) 476-6057 should you have any questions.

Sincerely,



John E. Kieling  
Program Manager  
Permits Management Program  
Hazardous Waste Bureau

cc: Ron Baca, FB  
D. Cobrain, NMED HWB  
C. Frischkorn, NMED HWB  
File: FB 2008 and Reading  
HWB-FB-008-001



BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

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RON CURRY  
Secretary

CINDY PADILLA  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

October 30, 2007

Mr. Keith Landreth  
Director of Environment  
US Army Garrison Fort Bliss  
Attn: ATZC-DOE (Landreth)  
Bldg. 624  
1733 Pleasanton Road  
Fort Bliss, TX 79916-6812

**RE: APPROVAL OF POST CLOSURE CERTIFICATION REPORT FOR DOÑA ANA RANGE CAMP LANDFILL (SOLID WASTE MANAGEMENT UNIT NO. 27), FORT BLISS, NEW MEXICO, EPA ID#NM4213720101-01 HWB-FB-06-005**

Dear Mr. Landreth:

The New Mexico Environment Department (NMED) has received the United States Department of the Army's (Permittee's) *Post Closure Certification Report for Doña Ana Range Camp Landfill (Solid Waste Management Unit No. 27), Fort Bliss Military Reservation*, dated March 2005.

On October 8, 2004 NMED approved with modifications a Voluntary Corrective Action Report submitted by the Permittee for Solid Waste Management Unit (SWMU) 27, dated February 2002. The Permittee did not submit the closure plan for approval as stated in NMED's October 8, 2004 approval letter, "Fort Bliss shall submit a plan for closing SWMU-27 for NMED's review and approval." The Permittee should note that NMED's directions were not followed and the installation of an alternate cover at the landfill was conducted at risk by the Permittee.

The Permittee used the Hydraulic Evaluation of Landfill Performance (HELP) model to demonstrate compliance with the New Mexico Solid Waste Regulations. The average annual percolation/leakage through layer 2, calculated using the HELP model for the NMED-prescribed

Mr. Keith Landreth  
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cover (18 inches thick), was 0.219 inches and for the alternate cover (30 inches thick plus six inches of topsoil) was 0.154 inches, which is less than the value calculated for the prescribed cover. The Permittee used the precipitation data from the five wettest consecutive year period for input into the HELP model as required by applicable regulations and guidance. However, it should be noted that if the highest values (1984 for both prescribed and alternative covers) and the lowest values (1987 for the prescribed cover and 1988 for the alternative cover) were excluded, the average annual leakage through the alternative cover (0.028 inches) is an order of magnitude higher than the value for the prescribed cover (0.002 inches).

The Permittee is proposing not to have a monitoring plan for methane gas because the risk to human health and the environment as a result of gas generation at the landfill is de minimus. The Permittee has provided several arguments to justify not monitoring for methane gas:

- The design cover system does not provide a significant barrier to prevent vertical migration of gas and direct atmospheric venting;
- There are no underground structures or utilities near the capped areas that could receive and transmit migrating gases;
- The nearest inhabited structures are greater than one-mile from SWMU No. 27;
- The site experiences low precipitation and high evaporation rates;
- Wastes were historically burned at the site to reduce waste volumes; and,
- Landfill gasses have never been detected during gas sampling and monitoring surveys at SWMU No. 27.

The Permittee has not proposed leachate monitoring at the site. An impermeable layer was not installed beneath the landfill. Leachate, if generated, will not collect beneath the landfill.

The Permittee has requested an exemption for monitoring groundwater during the post-closure care period for the site based on the following:

- Regional groundwater is present at depths approximately 330 feet below ground surface (bgs);
- A dry clay unit is present beneath the site at a depth of approximately 115 feet bgs indicating leachate has not migrated to the clay unit;
- Average annual area rainfall is approximately 15.5 inches and the average area evaporation rate is 105 inches;
- Data collected from the site indicates the highest detected concentrations of organic and inorganic constituents are below their respective NMED risk-based screening levels and the calculated risk ratio was 0.83, indicating that concentrations of detected constituents are unlikely to result in adverse health impacts or affect groundwater above New Mexico water quality standards; and,
- The nearest water supply well is located 1.5 miles from the site

Mr. Keith Landreth  
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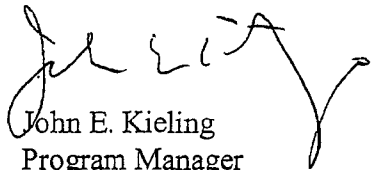
NMED concurs with the Permittee that the site does not require methane gas, leachate and groundwater monitoring during the post-closure period. NMED hereby approves the Post Closure Certification Report for the Dona Ana Range Camp Landfill, SWMU #27.

The Permittee has proposed post-closure site inspections at least twice per year. The inspections shall be performed before and after the wet summer season and after each major rainfall event that produces more than one inch of rain. Post-closure reports shall present the results of the inspections and summarize maintenance performed. Site inspections must include observations of the final cover and side slopes, the surface water drainage system and vegetative cover condition. Any damage to cover material or side slopes must be noted and repaired. Capped areas experiencing subsidence must be re-graded with additional soil as needed to maintain site drainage.

Site inspection summaries, including photographs and descriptions of site conditions shall be submitted to NMED annually by December 31<sup>st</sup> of each year. NMED will review the monitoring requirements for post-closure care at the end of the post-closure care inspection period to determine if post-closure care should be discontinued at that time.

If you have any questions, please contact Daniel Comeau of my staff at (505) 476-6050.

Sincerely,



John E. Kieling  
Program Manager  
Permits Management Program  
Hazardous Waste Bureau

cc: J. Bearzi, NMED HWB  
D. Cobrain, NMED HWB  
C. Frischkorn, NMED HWB  
N. Dhawan, NMED HWB  
D. Comeau, NMED HWB  
R. Baca, Ft. Bliss  
File: Reading File and FB 2007 (SWMU 27)



*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**  
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RON CURRY  
SECRETARY  
CINDY PADILLA  
DEPUTY SECRETARY

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

June 12, 2007

Keith Landreth  
Attn: ATZC-DOE (Landreth)  
Bldg. 624  
1733 Pleasanton Rd.  
Fort Bliss, New Mexico 79916-6812

**RE: APPROVAL OF POST CLOSURE CERTIFICATION REPORT FOR McGREGOR RANGE CAMP LANDFILL (SOLID WASTE MANAGEMENT UNIT NO. 18) FORT BLISS, NEW MEXICO, EPA ID# NM4213720101-01 HWB-FB-06-006**

Dear Mr. Landreth:

The New Mexico Environment Department (NMED) has received the United States Department of the Army's (Permittee's) *Post Closure Certification Report for McGregor Range Camp Landfill (Solid Waste Management Unit No. 18), Fort Bliss Military Reservation*, dated March 2005.

On October 8, 2004 NMED approved with modifications a Voluntary Corrective Action Report submitted by the Permittee for Solid Waste Management Unit (SWMU) 18 (dated February 22, 2002). The Permittee did not submit the closure plan for approval as clearly stated in NMED October 8, 2004 approval letter, "*Fort Bliss shall submit a plan for closing SWMU-18 for NMED's review and approval.*" The Permittee should note that NMED's directions were not followed and the installation of an alternative cover at the landfill was conducted at risk by the Permittee.

The Permittee used the Hydraulic Evaluation of Landfill Performance (HELP) model to demonstrate compliance with of the New Mexico Solid Waste Regulations (20 NMAC 9.1.502.A.2). The annual percolation/leakage through layer 2 calculated using the HELP model for NMED prescribed cover (18 inch thick) was 0.219, and for the alternative cover (30 inch thick) was 0.154, which is less than the value calculated for the prescribed cover. The Permittee

Keith Landreth  
June 12, 2007  
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used the precipitation data from the wettest 5 consecutive year period to input into the HELP model, as required by the regulations. However, it should be noted that if the highest values (for 1984 for both prescribed and alternative cover) and the lowest values (1987 for prescribed and 1988 for alternative cover) were excluded, the leakage through the alternative cover will be 0.0277 that is higher than the 0.0019 value for the prescribed cover.

The Permittee is proposing not to have a monitoring plan for methane gas because the risk to human health and the environment as a result of gas generation at the landfill is de minimus. The Permittee has provided several arguments to justify not monitoring for methane gas; there is low precipitation and high evaporation at the site, vegetative matter was not disposed at the site and the waste disposed at the landfill was burned at regular intervals. NMED concurs with the Permittee that methane gas will most likely not be generated at the site and the design of the cap will not prevent it from migrating vertically or laterally, if small quantities are generated. The Permittee has not proposed leachate monitoring for the site. An impermeable layer was not installed beneath the landfill. The leachate, if generated will not collect beneath the landfill.

The Permittee is requesting exemption for monitoring groundwater during the post closure care period based on the following:

- Regional groundwater is at depths greater than 350 feet below ground surface.
- Presence of a dry clay unit at about 58 feet below ground surface.
- Average annual rainfall in the area is approximately 15.5 inches and an average annual evaporation rate is 105 inches.
- Data collected from the site indicates that the highest detected concentrations of inorganic and organic chemicals are below their respective NMED risk based screening levels. Hazardous Index was calculated at 0.47.
- No leachate has been observed at the site during investigations.
- Nearest water well is located five miles west of the site.

NMED concurs with the Permittee that the site does not require methane gas, leachate, and groundwater monitoring during the post closure care period. NMED hereby approves the Post Closure Certification Report for McGregor Range Camp Landfill, SWMU 18.

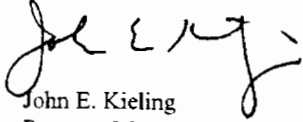
The Permittee is required to conduct post closure monitoring at the site. The post closure care required at the site includes maintenance of the cover, drainage system and vegetation. The Permittee must conduct annual inspections of the site and submit photographs and description of the site conditions to NMED annually. NMED will review the monitoring requirements for post closure care at the end of the proposed 15 year inspection period to determine if post closure care should be discontinued at that time.



Keith Landreth  
June 12, 2007  
Page 3 of 3

If you have any questions, please contact Neelam Dhawan of my staff at (505) 476-6040.

Sincerely,



John E. Kieling  
Program Manager  
Permits Management Program  
Hazardous Waste Bureau

cc: J. Bearzi, NMED HWB  
D. Cobrain, NMED HWB  
C. Frischkorn, NMED HWB  
N. Dhawan, NMED HWB  
Ron Baca, Ft. Bliss  
Elza Cushing, Ft. Bliss  
File: Reading File and FB 2007 (SWMU 18)

State of New Mexico  
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Hazardous Waste Bureau  
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Santa Fe, New Mexico 87505

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