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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

December 31, 2015

DeAnna Rothhaupt  
Chief, Holloman AFB Environmental  
550 Tabosa Avenue  
Holloman AFB, NM 88330

**SUBJECT: DISAPPROVAL  
PERMIT RENEWAL APPLICATION  
OPEN DETONATION TREATMENT UNIT  
HOLLOMAN AIR FORCE BASE, EPA ID# NM6572124422  
HWB-HAFB-015-001**

Dear Ms. Rothhaupt:

The New Mexico Environment Department (NMED) has reviewed the Holloman Air Force Base (HAFB, Applicant) February 26, 2015, permit renewal application (Application) for the Open Detonation Treatment Unit (OD Unit) for technical completeness.

Pursuant to its authority under the New Mexico Hazardous Waste Act, N.M.S.A. 74-4-1 et seq., and promulgated regulations thereof, NMED has determined that the Application is deficient. This Disapproval identifies the deficiencies that the Applicant must address before the Application can be further evaluated by the NMED. The Applicant must respond to this Disapproval in writing by providing replacement pages with, as appropriate, corrected, new, or augmented information that can be incorporated into the Application.

**1. ATTACHMENT A, Section A.1, GENERAL DESCRIPTION, Page 3 of 20, fourth paragraph:**

- a) Provide the total weight of waste munitions (including casings) that were treated at the OD Unit during the lifetime of the unit, which means from the first time wastes were treated through March 2011, when treatment ceased.

- b) Attachment (B) is titled "Waste Analysis"; Attachment A provides the description of the OD Unit. All text in Section B.1 (Facility Description), which contains a description of the Facility, must be moved from Attachment B to Attachment A.
- c) Explain how loading and unloading of hazardous waste at the OD Unit is conducted, and whether these procedures are performed manually and/or with equipment, such as forklifts.

2. **Attachment A, Page 8 of 20, Section A.3.2, "FLOODPLAIN STANDARD", and Section A.4, "TOPOGRAPHIC MAPS": *The FEMA floodplain map included as Figure A-5 shows that the OD Unit is not located within the 100-year floodplain...***

- 1. Figure A-5 does not satisfy the regulatory requirements of 20.4.1.900 NMAC incorporating 40 CFR 270.14(b)(19), which specify the features that must be shown on a topographic map of a hazardous waste management facility.

In order to meet the regulatory requirements, the Applicant must provide a topographic map of the OD Unit showing the features listed below, as applicable, which occur within a distance of 1,000 feet from the OD Unit. The map must be at a scale of 1 inch equal to not more than 200 feet. Topographic contours must also be shown on the map. The contour interval must clearly show the pattern of surface water flow in the vicinity of and from the OD Unit. The map must also clearly show:

- a. Map title, orientation (north arrow), and date;
- b. Surface-waters, including intermittent streams;
- c. Wind rose diagram placed on the topographic map in a manner that does not obscure map details or included as a separate figure in the Application. The wind rose must show prevailing wind-speed and direction;
- d. The boundaries of the OD Unit;
- e. Access control features (such as fences and gates);
- f. Buildings, tanks and other areas and structures (such as recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewage systems, loading and unloading areas, fire control facilities);
- g. Barriers for drainage or flood control;
- h. Horizontal bar scale, in addition to a relational scale (e.g., 1 inch = 200 feet).

- 3. Figure A-5 does not contain enough information to equate it to 100-year flood plain map. Further, text on the map and in the legend is not always legible. Thus, the map is unacceptable. Moreover, the hundred-year flood plain is not shown clearly on the map, as required by 20.4.1.900 incorporating 40 CFR 270.14(b)(11)(iii).

Revise Figure A-5 to clearly show the 100-year flood plain. In addition, ensure that all text on the revised Figure A-5 is legible.

4. **Attachment A, Section A.4, Page 12 of 20, “Surrounding Land Uses”, and Page 19 of 20, Figure A-11**

Figure A-11 does not illustrate the land use information requirements of 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(19)(iv). It only shows distances from the OD Unit to public highways and HAFB buildings, which does not adequately convey land use surrounding the OD Unit.

Therefore, the Applicant must provide a revised Figure A-11 that clearly shows the land use features listed under the third bullet of page 12 of 20. Include, as applicable, land uses such as residential, commercial, agricultural, or recreational.

5. **Section A.5, Page 20 of 20, “Holloman AFB RCRA Sites” map, and the next map, “Holloman AFB Monitoring Wells”**

The above referenced maps are not numbered figures. Number the map opposite page 20 of 20 in Attachment A, and for clarity revise the title of the map from “Holloman AFB RCRA Sites” to “Holloman AFB RCRA Corrective Action Sites”. Additionally, number all figures in the Application.

6. **“INSPECTION SCHEDULE”, Attachment C, Page 2 of 12, Section C.1.1, “Types of Problems”.**

Although the inspection schedule generally lists some of the items that the Applicant will inspect, it is incomplete. Also the frequency of inspection is not provided. Provide additional information in the Application in Table C-1 to include the frequency of inspection, and inspection criteria regarding potential problems that may be identified during an inspection of, but not limited to, 1) safety and emergency equipment, communication and alarm systems, decontamination equipment; and 2) operational and structural equipment. Provide a table or tables in a format similar to the example below, and meet all applicable requirements at 20.4.1.900 NMAC incorporating 40 CFR § 270.14(b)(5) and 20.4.1.500 NMAC incorporating 40 CFR § 264.602 and 40 CFR § 264.15.

Note that not all inspection parameters specific to the OD Unit are listed in the example table below, and some would not apply to the OD Unit (e.g. storage area floor). The example table is provided to show format and examples of some inspection parameters, criteria, and frequencies.

ITEM OR PARAMETER	INSPECTION CRITERIA	INSPECTION FREQUENCY
<b>Safety And Emergency Equipment</b>		
Eye wash / shower	Operational, accessible, in good condition	Monthly
Spill control/cleanup items, (mops, brooms, and/or shovels).	Present, and in good condition	Monthly
<b>Operating And Structural Equipment</b>		
Storage area floor	Clean, no spills, cracks, or excessive wear	Weekly
<b>Security Devices</b>		
Warning signs	Present, legible, and in good condition	Monthly
Fence/gates/locks	Present and in good condition	Monthly

7. **Attachment C, Page 4 of 12 through Page 5 of 12, “Exhibit C-1”, “Inspection Schedule and Checklist”.**

Explain why the Exhibit is called the “11,900-lb Open Detonation Range Checklist”. NMED recommends that “Exhibit C-1” be changed to ‘Table C-1’. Similarly, Exhibit C-2 should be changed to read, Table C-2. Also explain why Exhibit C-2 also contains “11,900 NEW”. NMED is not aware of any 11,900 pound OD Unit. For consistency with the rest of the Application, replace that amount with 20,000 lb., if the tables in Exhibits C-1 and C-2 are meant for the 20,000 pound OD Unit.

8. **Attachment D, PERSONNEL TRAINING, Page 2 of 11, Table D.1, “Personnel Training Schedule for HAFB OD Unit”, and Page 4 of 11, Table D-2, “EOD Personnel.”**

- a. Define, and also explain, the difference between Skill Level 3, Skill Level 5, Skill Level 7, and Skill Level 9 as used in Tables D-1 and D-2. Also define and explain the difference between Apprentice Level, Journeyman Level 5, and Craftsman Level 7. Provide information on both the introductory and continuing training programs for OD Unit personnel. The job descriptions in Attachment D of the Application did not specify the types of emergency procedures, emergency equipment, and emergency systems that personnel handling hazardous waste must be familiar with, in order to meet the requirements of 20.4.1.500 NMAC incorporating 40 CFR § 264.16(a)(3). Provide this information.
- b. Section D.1.4, first paragraph, last sentence, “[t]he job descriptions include hazardous waste management job duties, required skills, qualifications, experience, and educational requirements.” Provide the educational requirements that the Applicant considers appropriate for personnel to possess (based on their position classification) before allowing them to participate in hazardous waste management activities at the OD Unit, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.16(d)(2).

9. **Attachment E, Page 3 of 19, Section E.1.4, "EMERGENCY COORDINATORS"**.

- a. Attachment E does not contain a list of Emergency Coordinators, which is required by 20.4.1.500 NMAC incorporating 40 CFR § 264.52(d). The Applicant must provide a list of the names, addresses and office and home telephone numbers of all persons qualified to act as emergency coordinator. Where more than one person is listed, one must be designated as the primary emergency coordinator, and the others must be listed in the order in which they will assume responsibility as alternates.

- b. **Attachment E, Page 13 of 19, Section E.2.4.10, "Coordination Requirements", first paragraph, last sentence, "Some of the significant off-base response resources that can be incorporated, as needed, include the following."**

The Coordination Agreements with local authorities are required by 20.4.1.500 NMAC incorporating 40 CFR § 264.37, and are not discretionary as suggested in the quote above from Section E.2.4.10.

Describe what type of support agreements it has made with the emergency response authorities listed in Section E.2.4.10. Include a description of how the Applicant plans to familiarize the police, fire department, local hospitals, and White Sands Missile Range emergency response teams with the layout of the OD Unit. Further, describe how the Applicant will familiarize these organizations with the types and properties of hazardous waste managed at the OD Unit, and associated hazards and possible types of injuries or illnesses which could result from fires, explosions, or releases at the Unit.

- c. Include also the places where Facility personnel would normally be working, entrances and roads inside the OD Unit, and evacuation routes. These requirements are specified at 20.4.1.500 NMAC incorporating 40 CFR § 264.37(a).
- d. Provide a list of names of the specific agencies/organizations with which the Applicant has a memorandum of agreement (MOA) or memorandum of understanding (MOU) for emergency aid and fire protection. Provide a table listing the MOAs or MOU's for emergency response between the Applicant and outside organizations. Include the specific type of service to be provided by each outside organization.

- e. **Implementation of Contingency Plan and Control Procedures:**

Section E.2.3 only lists the situations under which the Contingency Plan will be implemented, but does not state the actions to be taken by the Applicant in the event

of an emergency. Therefore, the Applicant must describe the actions Facility personnel will take in response to fires, explosions, or any unplanned or non-sudden release of hazardous waste or hazardous waste constituent to air, soil, or surface water, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.52(a).

- f. **Post-Emergency Equipment Maintenance:** Provide a description of the decontamination procedures and other procedures that will be followed, after a response to an emergency to ensure the equipment listed in the Contingency Plan is fit for its intended use before operations are resumed, as would be required by 20.4.1.500 NMAC, incorporating 40 CFR § 264.56(h)(2). Include excerpts from HAFB Emergency Plan 10-2 that discuss in detail the maintenance process instead of only referring to that document.

- g. **Attachment E, "Contingency Plan", Page 2 of 19, through Page 14 of 19.**

In order to avoid having duplicate information in various parts of Attachment E, please, combine the information on "Coordination Agreements" in Section E.1.3 with similar information contained under Section 2.4.10 of Attachment E. Similarly, combine Section E.1.4 with Section E.2.2 (Emergency Coordinators); Section E.1.5.1 with Section E.2.3 (Emergency Response Procedures), Section E.1.6 with Section 2.4.9 (Emergency Response Equipment), and Section E.1.7 with Section 2.4.12 (Post-Emergency Reports).

10. **Attachment F, Section F.1.9.2, "BIENNIAL REPORT"**

Revise the Application to include all requirements for biennial reports found at 20.4.1.500 NMAC incorporating 40 CFR § 264.75. Include information, which specifies that the Applicant will prepare and submit biennial reports to NMED by March 1 of each even numbered year. Also include information that the reports will cover activities during the previous calendar year and will provide:

- a. The EPA identification number, name, and address of the Facility;
- b. The calendar year covered by each report;
- c. The EPA identification number of each hazardous waste generator from which the Facility received hazardous waste during the year;
- d. A description of the quantity of each waste and the waste types the Facility received during the year;

11. **Attachment G, CLOSURE AND POST-CLOSURE PLAN, Section 1.0, "Introduction and Background", Page 1-1, paragraph 4, "In addition the 29 August 2011 Notice of Deficiency (NOD) on the Expanded Closure and Post-Closure Care Plan and 22 September 2011 Responses to comments...are included as Attachments 1-4 to this amended Expanded Closure Plan."**

Attachments 1-4 are not included in Attachment G. Provide the Attachments.

12. **Attachment G, Page 2-3, Section 2.6.3, "Closure Sampling and Analysis", third paragraph from the bottom of the page, second sentence, "The amended SAP (Appendix A) details the 2012 methodology used for collecting and analyzing soil and groundwater samples, and the standards to which they were compared."**

- a. The detailed information on the methods used for collecting and analyzing soil and groundwater samples, and the standards to which they are to be compared, referenced in Appendix A of the Application, are not provided in the Closure Plan attached to the Application. The Applicant was advised at a meeting conducted via teleconference (on January 9, 2015) to include a copy of the entire July 2014 OD Unit Closure Plan in the Application, and not just a summary of the document.

Provide a revised Application that contains all information from Appendix A (Field Standard Operating Practices No.1 through No. 11).

- b. **Attachment G, Section, G.8.4, page 2-7, "If the risk assessment for the perchlorate and/or nitrite in groundwater identifies an unacceptable risk, the clean closure of OD20K cannot be achieved since contamination cannot be remediated during this event; therefore the site will move to a post-closure care permit."**

Since groundwater sample results from the March 2015 event indicate that the OD Unit cannot be clean closed, a post-closure permit application must be submitted to NMED pursuant to 20.4.1.900 NMAC incorporating 40 CFR § 264.603.

- c. Due to the presence of contaminated groundwater beneath the OD Unit, closure activities must include an investigation to determine the nature and extent of the contamination. HAFB must fully characterize the groundwater contamination and the source(s) of the contamination. To accomplish characterization, submit in writing an amendment to the OD Unit's Closure Plan that describes in detail the work that will be done to complete characterization, and the basis for the proposed work. Furthermore, an amendment of a closure plan must meet 40 CFR 264.112(c), and because an amendment of a closure plan is a permit modification, the regulatory procedures and requirements for permit modifications must be followed, including as necessary the procedures for public notice and participation.

- d. **Section 2.6.2, page 2-4, last bullet**, *“If the DGI groundwater sampling results confirm the 2012 results, then five additional monitoring wells will be installed to a depth of approximately 50 feet the vicinity of MW02...”*

The information provided in Section 2.6.2 is not adequate to make decisions related to the proposed additional wells. For example, there is no information concerning well installation, survey data, water level measurements, sampling methods, lab reports, the depth at which the wells would be screened, or what materials would be used to construct the wells, or how the wells would be developed. Complete information must be provided in the response to this Disapproval, and also be incorporated into the Application.

- e. **Incremental Sampling Procedures**: There is a “Standard Operating Practices” (SOP) soil sampling method included in the October 2014 Closure Plan under Appendix A, Section 1.5. The SOP states that “[i]ncremental Sampling Procedures” will be used to obtain estimates of the average concentration of analytes in soil samples from the sampling area.

There is no mention of incremental soil sampling in Attachment G (Closure Plan) of the Application. Incorporate Appendix A into the revised Application since it is referenced on most pages of the Closure Plan.

13. a. **Closure Performance Standards** specified at 20.4.1.500 NMAC incorporating 40 CFR § 264.111, must be addressed with respect to how they will be achieved for the OD Unit. Describe how closure will minimize the need for further maintenance, and will control, minimize, or eliminate the post-closure escape of hazardous waste, hazardous constituents, contaminated runoff, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and how closure will comply with the applicable closure requirements of 20.4.1.500 NMAC incorporating 40 CFR § 264.111(c).
- b. **Amendment of the Closure Plan** must be described, should it become necessary, including the situations where an amendment is required by the regulations at 20.4.1.500 NMAC incorporating 40 CFR § 264.112(c)(2). Include a description in the revised Closure Plan.
- c. **Maximum Waste Inventory**

Provide an estimate of the maximum inventory of hazardous wastes treated on-site over the active life of the Facility (see Comment 1(a) of this letter) provide detailed descriptions of the methods to be used during final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the types of the off-site waste

management units to be used, as applicable, as required by 20.4.1.500 NMAC incorporating 40 CFR § 264.112(b)(3).

d. **Disposal or Decontamination of Equipment, Structure, and Soil**

Pursuant to 20.4.1.500 NMAC incorporating 40 CFR § 264.112(a)(4), provide a detailed description of the steps needed to remove or decontaminate all hazardous waste residues, containment system components, equipment, structures, and, if necessary, soil during closure, including, but not limited to, procedures for cleaning or disposition of equipment and removing as necessary contaminated soil, methods for sampling and analysis of soil, and criteria for determining the extent of decontamination required to satisfy the closure performance standard specified at 20.4.1.500 NMAC incorporating 40 CFR § 264.111. Provide information on how, during closure of the OD Unit, the Applicant will remove or decontaminate equipment, structures, and soils, rather than merely refer to Attachment F of the current operating permit.

Indicate how it will be demonstrated that any hazardous waste constituents (i.e., the constituents listed in Appendix VIII in 40 CFR Part 261 and Appendix IX in 40 CFR Part 264), which will remain in environmental media when the Unit is closed, will not pose an unacceptable risk to human health or the environment.

e. **Investigation Derived Waste**

This topic was not addressed in the Closure Plan. Provide a description of how the Applicant plans to manage investigation derived waste. Include a description of how waste from drilling activities, soil sampling, groundwater sampling, used personal protective equipment, and wastewater from decontamination efforts will be managed.

14. **Attachment H, SAMPLING AND ANALYSIS PLAN, Page 3-3, Groundwater, Section 3.2.2.2, third sentence, “If the data Gap Investigation Groundwater sampling results confirm the 2012 results, then five additional monitoring wells will be installed in the vicinity of monitoring well Holloman AFB-EOD-MW02 (Figure 8, Additional Groundwater Monitoring Wells Locations OD20K).”**

Figure 8 of the Closure Plan shows the monitoring well locations as being outside the OD Unit peripheral fence (i.e., for HAFB/EOD-MW02 through HAFB/EOD-MW03). The wells should all be located inside the fence.

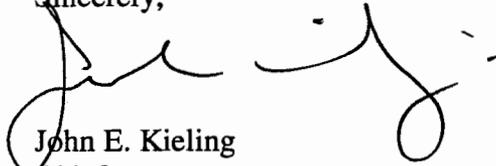
Revise the map showing the correct proposed monitoring well locations.

15. **Final Direction**

The Applicant must submit the information, including a revised Application, required by this Disapproval in the form of two paper copies and two CDs or DVDs containing electronic files compatible with Microsoft Word™, indicating added information in highlighted or underlined text, and deleted information in redline-strike-out text. Furthermore, in order to facilitate review of the responses, provide a table cross-referencing each of NMED's comments with the Applicant's responses and where the appropriate information has been incorporated into the Application. The Applicant must submit the required information no later than **April 1, 2016**.

If you have any questions please contact Mr. Cornelius Amindyas of my staff at (505) 222-9543 or at the address indicated on the letterhead of this correspondence.

Sincerely,



John E. Kieling  
Chief

Hazardous Waste Bureau

cc: D. Cobrain, HWB NMED  
W. Moats, HWB NMED  
C. Amindyas, HWB NMED  
L. King, Chief, EPA Region VI (6PD-N)

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