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ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

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DAVE MARTIN  
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Acting Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 19, 2011



Mark Patterson  
BRAC Coordinator  
Ravenna Army Ammunition Plan  
Building 1037  
8451 State Route 5  
Ravenna, OH 44266

Steve Smith  
USACE FWDA Program Manager  
CESWF-PER-DD  
819 Taylor Street, Room 3B06  
PO Box 17300  
Fort Worth, TX 76102-0300

**RE: APPROVAL WITH MODIFICATIONS  
REVISED RCRA FACILITY INVESTIGATION WORK PLAN PARCEL 6  
FORT WINGATE DEPOT ACTIVITY  
EPA ID# NM6213820974  
FWDA-08-001**

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) received the Department of the Army's (the Permittee) *Resource Conservation and Recovery Act (RCRA) Facility Investigation Work Plan for Parcel 6 (Revised)*, dated March 30, 2011 (Work Plan) and submitted pursuant to Section VII.H of the Fort Wingate Hazardous Waste Facility Permit. NMED has reviewed the Work Plan and hereby issues this Approval with Modifications. The Permittee must address the following comments when implementing this Work Plan. Comment numbers correspond to the comments from the most recent NMED NOD for the Work Plan and Permittee response.

**COMMENT 2**

NMED recognizes that the Army confirmed sample locations and that it is further explained in the Historical Information Report. However, NMED only asked that wording be changed in the Work Plan to reflect that sample depths are unknown at this time. No response is necessary.

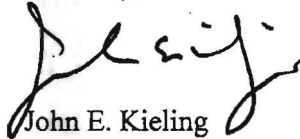
constituents that may pose a threat to human health or the environment. The future use or disposition of the igloos is unknown at this time. Therefore, the igloo interiors must be characterized in order to determine whether residual contamination is present as part of characterization of any AOC that contains igloos.

- b. The requirement to sample the igloos is intended to determine whether releases of hazardous waste or hazardous constituents, as defined in the Permit, occurred in the igloos during historic operations. The results of characterization of the igloos will determine whether there is a need for corrective measures to address residual contamination. Corrective action would not likely be required should the igloos be scheduled for demolition or if other adequately protective measures are proposed (e.g., encapsulation of interior surfaces) to remove potential threats to human health and the environment.

For reasons stated above, the Permittee must sample igloo interiors to determine if hazardous waste or constituents are present. The Permittee must address all comments contained in this letter when implementing this Work Plan. The Permittee also must implement the direction provided by NMED in previous letters as such direction relates to sampling the igloo interiors. No revisions to the Work Plan are necessary; however, the Permittee must ensure that all modifications included in this letter are incorporated into the scope of work and report on these actions in the RFI report. The Permittee must submit an RFI Report to NMED on or before April 30, 2012.

If you have questions regarding this approval please contact Shannon Duran of my staff at 505-476-6058.

Sincerely,



John E. Kieling  
Acting Chief  
Hazardous Waste Bureau

cc: Shannon Duran, NMED HWB  
Dave Cobrain, NMED HWB  
Laurie King, U.S EPA Region 6  
Chuck Hendrickson, U.S. EPA Region 6  
Darrell Tsabetsaye, Pueblo of Zuni  
Steve Beran, Pueblo of Zuni  
Tony Perry, Navajo Nation  
Jason John, Navajo Nation  
Eugenia Quintana, Navajo Nation  
Clayton Seoutewa, Southwest Region BIA  
Rose Duwyenie, Navajo BIA  
Judith Wilson, BIA

tertiary butyl ether, polychlorinated biphenyls (PCBs), dioxins, furans, waste military munitions, and munitions constituents as defined at 10 U.S.C. 2710(e)(3).

- c. Permit Section I.H (definitions) defines hazardous constituent as any constituent identified in 20.4.1.200 NMAC (incorporating 40 C.F.R. Part 261, Appendix VIII) and any constituent identified in 20.4.1.500 NMAC (incorporating 40 C.F.R. Part 264, Appendix IX).
- d. The FWDA Igloo Pilot Wash Study, December 1997, demonstrated that residues generated during former activities conducted in the igloos contained hazardous constituents (*e.g.*, metals, explosive compounds). Such releases are subject to the corrective action requirements of the Permit. The requirement to investigate the igloo interiors is necessary to determine whether solid or hazardous waste or hazardous constituents are present in the igloos.
- e. If the Permittee wants to demonstrate that the igloo interiors do not contain solid waste, hazardous constituents, or other hazardous wastes, it must do so pursuant to the terms of the permit, Section VII.

3. Army Comment: NMED cannot claim there was ever a spill of hazardous waste in the igloos. There is no evidence that a commercial chemical product (CCP) as defined in 40 CFR 261.33 was spilled in the igloos. CCPs in their pure form were not stored in the igloos. RCRA Online 11161 "If you cannot show that the products are listed under 261.33(e) and (f), the residues would not be a hazardous waste under 261.33"

NMED Response:

Corrective action at the SWMUs and AOCs at FWDA is governed by the terms of the Permit, specifically Section VII. Section VII.F.1 requires that the Permittee provide any available information regarding all wastes stored or present in each unit and hazardous wastes or hazardous constituents contained in such waste. If contamination is found, Section VII.H.1.b requires that the Permittee determine the nature and extent of the contamination. If the Permittee provides information pursuant to Section VII demonstrating that there are no hazardous wastes or hazardous waste constituents present in the igloo interiors, then no further action may be attained for those units. This determination cannot be made until the Permittee provides the required information.

4. Army Comment: Because there is no evidence the igloos on these parcels ever stored RCRA hazardous waste, New Mexico cannot require sampling of the interior of these igloos.

NMED Response:

- a. As stated above, the igloo blocks are AOCs. The AOCs are listed on the permit as requiring corrective action and therefore are subject to the corrective action requirements of the Permit. NMED cannot make a determination that corrective action is complete at any SWMU or AOC where there is a suspected release of hazardous waste or hazardous

Permit Section VII.F.1 (Release Assessment Plan) requires the Permittee to prepare and submit to NMED a Release Assessment Report for each AOC listed in Permit Attachment 8, in conjunction with each Facility Investigation Work Plan. The Release Assessment Report requires a description of the unit, all wastes stored in the unit and any releases from the unit, among other things. Permit Section VII.H.1.b (RCRA Facility Investigation Work Plan Requirements) states that “[t]he work plan shall include schedules of implementation and completion of specific actions to determine the nature and extent of contamination...”

Permit Section VII.H.3.a (RCRA Facility Investigation Report) states [t]he summary shall describe the type and extent of contamination at each SWMU and AOC investigated, including sources and migration pathways, identify all hazardous waste or constituents....”

The requirement to sample the igloo interiors is within the scope of RCRA and is within the scope of the RCRA Permit corrective action requirements. Without such information, NMED cannot evaluate human health risk at the units listed on the Permit that contain igloo blocks.

2. Army Comment: There is no evidence that the Army or its contractor stored hazardous waste in any of the igloos (with the exception of 12 igloos used by a contractor TPL). Pursuant to 40 CFR 266.202(a)(2), unused munitions awaiting use (or reuse) and unused components thereof, are not a solid waste if they are being repaired, reused, recycled, reclaimed, disassembled, or reconfigured. The igloos were used for storage of unused munitions and unused components... [t]herefore there could not have been any release of hazardous waste subject to the RCRA Permit.

NMED Response:

- a. Permit Section VII.A (Applicability) states that the conditions of Section VII (Corrective Action) “apply to all SWMUs and AOCs identified in Attachment 8 [...and any release of hazardous waste or hazardous constituents from SWMUs and AOCs.” All SWMUs and AOCs listed in Attachment 8 are subject to the permit requirements in Section VII.F.I and VII.H.I. The purpose of the permit provisions in Section VII is to determine if hazardous waste constituents are present at the AOCs. Hazardous constituents may be components of solid waste and solid wastes are subject to the corrective action requirements of the Permit, if such wastes contain hazardous constituents or hazardous waste as defined in the Permit for the purpose of corrective action.
- b. Permit Section I.H (Definitions) defines hazardous waste for the purposes of corrective action for solid waste management units and areas of concern conducted pursuant to 20.4.1.500 NMAC (incorporating 40 CFR 264, subpart F) or 20.4.1.900 NMAC (incorporating 40 CFR 270.32(b)(2)). Per the Permit, a hazardous waste is a waste as defined in 42 U.S.C. 6903(5) and Section 74-4-3 of the New Mexico Hazardous Waste Act (HWA). Hazardous waste, for the purposes of corrective action, includes any of the following, which are also a solid waste; any ground water contaminant listed in the Water Quality Control Commission (WQCC) Regulations at 20.6.2.3103 NMAC, any toxic pollutant listed in 20.6.2.7 NMAC, any contaminant for which the EPA has promulgated a maximum contaminant level (MCL) at 40 CFR Parts 141 and 143, perchlorate, methyl

### COMMENT 3

Magnetic anomalies were identified during a geophysical survey conducted at Fort Wingate Depot Activity in January 2009. The Permittee must propose characterization and removal of any waste found in the vicinity of SWMU 20 identified in the survey as part of future corrective measures implementation at Parcel 6. The Permittee must address these corrective measures in the Investigation Report summarizing the results of implementation of this Work Plan.

### COMMENT 5

In Appendix N (Comment Response Table) Comment Number 29, the Permittee states “[t]he Army BRAC Headquarters will be providing a letter to the NMED on the sampling of igloo interiors in Parcel 22. The sampling of igloo interiors in Parcel 4 and 6 will be similar to those proposed for Parcel 22.” NMED received the letter from BRAC Headquarters, dated June 11, 2010. In the letter the Permittee requested a description for swipe sampling protocol and regulatory criteria to be used. NMED provided a response, dated October 1, 2010 which included the requested protocol for sampling igloo interiors.

In response to Comment 29 of NMED’s February 4, 2010 NOD and Comment 5 of NMED’s October 21, 2010 (Second) NOD, Army provided Memorandum for DAIM-ODB-RA, dated March 3, 2011. NMED’s response to a summary of each numbered item (1 through 4) in the Memorandum is provided below.

1. Army Comment: the requirement to sample igloos is outside the scope of RCRA.

NMED Response:

- a. 40 CFR 264.101(a) requires Permittee to “institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which the waste was placed in such a unit.” 40 CFR 264.101(b) provides that the corrective action will be specified in the permit.
- b. The permit specifies that the igloo blocks are Areas of Concern listed in Attachment 8, Table 1, “Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) That Require Corrective Action” (Hazardous Waste Management Unit, Solid Waste Management Unit, and Area of Concern Table of the FWDA RCRA Permit (December 1, 2005).
- c. An AOC is defined in Permit Section I.H as “any area having a known or suspected release of hazardous waste or hazardous constituents that is not from a SWMU and that NMED has determined may pose a current or potential threat to human health or the environment....[a]n area of concern may include buildings and structures at which releases of hazardous waste or constituents were not remediated, including one time and accidental events.”

Messrs. Patterson and Smith  
August 19, 2011  
Page 6

Eldine Stevens, BIA  
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File: FWDA 2011 & Reading File  
HWB-FWDA-08-001