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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 29, 2015

Mark Patterson  
FWDA, BRAC Coordinator  
P.O. Box 93  
Ravenna, OH 44266

Steve Smith  
USACE FWDA Program Manager  
CESWF-PEC-EF  
819 Taylor Street, Room 3A12  
Fort Worth, TX 76102

**RE: DISAPPROVAL  
FINAL RCRA FACILITY INVESTIGATION WORK PLAN  
PARCEL 19  
FORT WINGATE DEPOT ACTIVITY  
MCKINLEY COUNTY, NEW MEXICO  
EPA ID# NM6213820974  
HWB-FWDA-15-005**

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) has received the *Final, RCRA Facility Investigation Work Plan, Parcel 19*, (Plan) dated February 13, 2015 from Fort Wingate Depot Activity (Permittee). NMED has reviewed the Plan and hereby issues this Disapproval. The Permittee must address the following comments.

## **SECTION ES. EXECUTIVE SUMMARY**

**1. Permittee Statement – Section ES 3.3 AOC 58: Buildings 303, 304, 305, and 320, page ES-2, and Table ES-1.** “Personnel will collect six discrete soil samples, from 0-6 inches bgs, around the exterior of each building. [..]. Personnel will also collect ten discrete soil samples at 25-foot intervals between the railroad tracks and the loading docks of each building.” “Table ES-1, Number of Discrete Samples = 54.”

### **NMED Response:**

It appears that 64 soil samples will be collected at this AOC. From the statement above, six discrete soil samples will be taken at four buildings and ten discrete soil samples around each of the four buildings. Thus, the total number of discrete samples is 64. Revise the Table ES-1 to reflect the correct number of discrete samples to be collected.

## **SECTION 4.0 INVESTIGATION METHODS**

**2. Permittee Statement – Section 4.4.3 Incremental Soil Sampling and Figure 4-1, page 4-4.** Figure 4-1 Scenarios “A” and “B” A. Sample Locations if igloo apron does not drain over the road (to be determined in the field). B. Sample Locations if igloo apron drains over the road (to be determined in the field).”

### **NMED Comment:**

The proposed scenarios may lead to insufficient data collection because the natural surface slope does not appear to be considered. If the igloos are located at a higher elevation relative to the road then surface water flow potentially carries contaminants down-gradient. Whether or not an apron is sloping must not be the only determining factor to sample across the road. Propose using scenario B for Igloo Blocks that have surface sloping in the direction of the road; utilize three decision units (DUs) to collect 30 subsamples from the left and 30 subsamples from the right sides of the apron/slab and 30 subsamples from directly across the road. Propose to collect a total of 3 multi-incremental (MI) samples for each igloo. In addition, correct the Legend in Figure 4-1 to state discrete sample rather than composite. Propose using scenario A for Igloo Blocks that are located on a flat surface.

**3. Permittee Statement – Section 4.4.3 Incremental Soil Sampling, page 4-4, lines 7-11.** “The project QAPP located in Appendix D of this RFI Work Plan describes the specific sample collection volumes, bottle requirements, preservation, and holding times. Appendix A of the QAPP provides detailed FPs for ISM sampling. Figure 4-1 shows ISM subsample locations for igloos, Figure 4-2 shows ISM subsample locations for revetments, and Figure 4-3 shows ISM subsample locations for buildings.

**NMED Comment:**

NMED only reviews the Work Plan, not Site-Specific Quality Assurance Project Plans (QAPP). In future submittals, information contained in the QAPP must be included in the appropriate sections of Work Plans and Reports. In addition, tables listing the analytical method, holding times and other laboratory sample information are included within sections regarding the contaminants of potential concern. In future Work Plans include these tables at the end of the section to which it is related or provide a general table in an appendix and reference the table within the text.

**SECTION 5.0 AOC 30 – IGLOO BLOCK D**

**4. Permittee Statement – Section 5.1.1 Surface Conditions, page 5-1 lines 31-33 and Section 5.3.2 Incremental Surface Soil Sampling of Igloo Drainage Area, page 5-5, lines 8-13.** “As shown on Figure 3-2, the primary soil types at AOC 30 in Parcel 19 are the Aquima-Hawaikuh silt loam (1 to 5 percent slopes) and the Toldohn-Vessilla rock outcrop complex (8 to 35 percent slopes).”

“If the access road acts as a drainage divide and no water from the apron runs over it, then the incremental sample will consist of 15 subsamples collected on each side of the apron beginning at the drain outlet and roughly equally spaced to the ditch at the road. If water runs across the road from the apron, then personnel will collect ten subsamples evenly spaced from each drain to the ditch at the road and subsamples across the road in a line between the ends of the igloo wing walls.”

**NMED Response:**

The surface conditions as described above, likely causes storm water to drain to the north. The roads and ditches are located on the northern side of the igloos and MI sampling must be conducted within them. Therefore, the drainage ditches must be included in the MI sampling. Revise the Work Plan to include multi-incremental sample locations within the ditches. See Comment 2. This comment is related and must be incorporated when sampling all igloo blocks.

**5. Permittee Statement –Section 5.2.2, Sampling Data, page 5-3, lines 12-22 and 29-39.**

“Three wipe samples were collected from the interior of each of the five igloos to determine if explosives residues were present in the igloos. The first wipe sample was collected from the center of the left floor drainage trough, the second from the middle of the floor and the third from the center of the right floor drainage trough. The wipe samples were analyzed for explosives. Of the 15 wipe samples collected, explosives were detected in two igloos. The explosive 2, 4, 6-TNT was detected in the three wipe samples collected from Igloo D1221 at concentrations ranging from 0.019 micrograms per centimeter squared ( $\text{ug}/\text{cm}^2$ ) to  $0.07 \text{ ug}/\text{cm}^2$ . The explosive 2, 4, 6-TNT was also detected in two wipe samples collected from Igloo 1229 at  $0.095 \text{ ug}/\text{cm}^2$  from sample D1229-1 and  $0.16 \text{ ug}/\text{cm}^2$  from sample D1229-3. The RI/FS Report stated that the presence of explosives in these wipe samples required further evaluations for human health-based risks (ERM PMC, 1997). [...]. A potential cumulative risk/hazard

assessment for these data was performed by calculating the estimated hazard quotients for each detected analyte from each sample. A hazard quotient is the ratio of the potential level of exposure to a substance and the level at which no adverse effects are expected. The maximum estimated hazard quotient for each analyte was used to calculate the cumulative hazard index (HI). For metals, only detections that exceeded background were used to estimate potential risk/hazard. Table 5-2 presents the risk/hazard screening performed on historical analytical results from AOC 30. The hazard quotient for the nitrate/nitrite sample with the highest concentration was 0.00005 and the hazard quotient for the highest phosphate concentration was 0.00022. The HI is 0.00027, which is less than 1, indicating that an unacceptable hazard is not expected at this site. None of the detected analytes at AOC 30 have a carcinogenic endpoint; therefore, cumulative carcinogenic risks were not determined.

**NMED Comment:**

The wipe sample analysis was reviewed by the Agency for Toxic Substance and Disease Registry (ATSDR), Health Consultation for FWDA. The review recommended additional sampling in the igloo interiors after concluding that the existing data appeared inadequate to characterize the extent of contamination. ATSDR submitted a letter in March 2009 detailing their concerns regarding the inadequacy of the wipe sampling data, along with a suggested sampling approach to resolve the issue. NMED also clarified its position with regard to the igloo interiors in letters dated July 22, 2009 and October 1, 2010. This issue may be addressed with a proposal for an alternative approach (e.g., encapsulation of the igloo interiors) that may be applied facility wide. This comment is applicable to any section in this Work Plan that references this sampling event.

**6. Permittee Statement – Section 5.3.3 Incremental Surface Soil Sampling Inside Revetments, page 5-5, lines 24-26.** “If it appears that the original grade of the revetment has been covered by wash-in material, the wash-in material will be removed with a power auger and the revetment subsample will be taken from the original soil grade.”

**NMED Comment:**

The sampling area must be representative of all soil horizons present in each decision unit. Thus, the Permittee must sample the wash-in material as well as the underlying native soil. In order to determine the vertical extent of contamination the Permittee must sample all strata. Each stratum must represent a decision unit. In addition, the sampling tool must be able to obtain a sample [cylindrical or core-shaped increment] from a known depth from the surface. Soil samples collected as part of a subsurface investigation are intended to be representative of a specific depth interval. A power auger will not obtain this as it is very difficult to identify the exact location of the sample. The Permittee must use a multi-incremental sampling tool such as the EVC Incremental Sampler or a drill core bit. For non-cohesive soils and sediments, short- and long-nose scoops (trowels) may be used; however, care must be taken to obtain a "core-shaped" increment over the entire depth of interest. Refer to the *“Technical and Regulatory Guidance, Incremental Sampling Methodology,”* February 2012 by the Interstate Technology & Regulatory Council. This comment is applicable to all MI sampling to be conducted in this work plan.

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## SECTION 13.0 PROJECT MANAGEMENT

7. **Permittee Statement – Section 13.1, Project Scheduling and Reporting Requirements, page 13-1.** “The projected schedule for conducting the RFI activities at Parcel 19 is located in the QAPP (Appendix D).

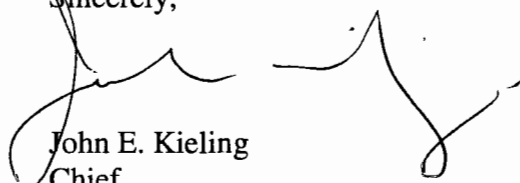
### **NMED Comment:**

The project schedule must be included in the Work Plan. See comment 3.

The Permittee must submit a revised Plan to address all comments contained in this Disapproval. In addition, the Permittee must include a response letter that details where each comment was addressed, cross-referencing NMED’s numbered comments. The Permittee must also submit an electronic redline-strikeout version of the revised Plan. The revised Plan must be submitted on or before **June 30, 2015**.

If you have any questions regarding this letter, please contact Vicky Baca at (505) 476-6059.

Sincerely,



John E. Kieling  
Chief

Hazardous Waste Bureau

cc: Dave Cobrain, NMED, HWB  
Neelam Dhawan, NMED, HWB  
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FWDA-15-005