



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS, TX 75202-2733

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Mr. Larry Fisher  
BRAC Environmental Coordinator  
Environmental Management Division  
Tooele Army Depot  
Tooele, Utah 84074-5000

RE: **Final Risk Assessment Work Plan,**  
Fort Wingate Depot Activity, New Mexico  
EPA I.D. # NM6213820974

Dear Mr. Fisher:

We have reviewed this report, dated 31 August, 2000. We have these comments to submit:

**General Comments:**

It is not clear how the Army plans to assess risk to residents (including the pathways of beef and vegetable ingestion). EPA generally uses age-adjusted factors for carcinogens and relies upon the child defaults for determining residential risks from non-carcinogens. Using the child for assessing residential risk is more conservative than using the adult under standard EPA defaults. However, this risk assessment is proposing a longer adult exposure duration to accommodate tribal concerns. Is the child scenario still the more conservative? The Army needs to make this comparison and use the more conservative scenario for assessing non-carcinogen hazards to the resident.

We note that UXO (unexploded ordnance) do not seem to be a consideration in the proposed risk assessments. The UXO risks to human health and environmental receptors need to be assessed at the sites which have UXO contamination. At this time there is little consensus between the Environmental Protection Agency and the Department of Defense on how to evaluate UXO risks; nonetheless, these risks need to be considered at this facility. Please present a proposal on evaluation and management of the UXO risks at Fort Wingate Depot.

Another risk assessment issue which was not dealt with in this work plan is that of human health risks within the munitions igloos. Please submit an appropriate risk assessment methodology for consideration.

**Specific Comments:**

Page 2-2. The elimination screen based on frequency of detection has been paraphrased such that the original intent is not present. For example: "If a constituent is detected in less than 5% of the samples collected from a given medium it will be eliminated" is not what RAGs (Risk Assessment Guidance for Superfund) states or intends. This document says that a chemical can be a candidate for elimination if: 1) it is detected infrequently in one or perhaps two environmental media, 2) it is not detected in any other sampled media or at high concentrations, and 3) there is no reason to believe that the chemical may be present. RAGs goes on to say that if using a detection frequency limit approved by the RPM such as 5%, then at least 20 samples of a medium would be needed at that AOC/SWMU.

Section 2.2.1.1, Background, page 2-4: Well FW31 is located southwest of the Pistol Range, not southeast, according to Figure 3-1 in the 1995 RI/FS report. Please clarify the location of this well. Assuming that the well location in the RI/FS report is correct, this well may not be representative of ground water in other parts of the facility. FW31 is two to three miles away from the majority of sites in the northern area, drilled into stratigraphy that is significantly below that of the northern area, although apparently still within the Chinle Formation. But the screening level values shown on Table 2-4 are acceptable for this risk assessment because the water mineralization is somewhat less than that found in the northern area and the potential constituents of concern are low values or non-detects.

Page 2-9. In the inhalation equation, " $IF_{air}$ " should be " $IR_{air}$ ."

Page 2-14. Intake Factors: The IF units are incorrect in several places. On page 2-14 the resultant product should be in units of liters/kg-day, not 1/day. And on pages 2-9 and 2-15 the IF units should be 1/day, not liters/day.

Page 2-16. Human health decision-making is generally made when the risk is between  $10^{-4}$  and  $10^{-6}$ , not when it is greater than  $10^{-4}$ . As noted in our March 14, 2000, comment letter on the OB/OD Phase 1B report: EPA has stated its policy on this issue (61 FR 19450, May 1, 1996):

EPA's preference, all things being equal, is to select remedies that are at the more protective end of the risk range. Therefore, program implementors and facility owners/operators should generally use  $10^{-6}$  as a point of departure when developing site-specific media cleanup standards.

Tables 2-1 to 2-3: These proposed background levels need to get regulatory approval before they are used in the risk assessment. EPA will provide comments soon on the soil background report, which we received on November 2<sup>nd</sup>.

Table 2-8. EPA has revised several of the assumptions used in this data in draft documents. While you may not wish to reference the draft documents, the latest revised Region 6 Human Health Screening Values and text was uploaded to the Region 6 web site in early October. You may, if you wish, use that document as the basis for changing the assumptions. One of the major changes is that EPA no longer recommends a default absorption factor for volatile organic chemicals. Also, the recommended skin adherence factor for the adult worker and child is 0.2.

Tables 2-10, 2-11, and others involving inhalation: The inhalation rate listed on the tables is the same for both adult and child. On some tables it is listed as 15 m<sup>3</sup>/day and others as 20. The reference given is USEPA 1991. This reference is not listed in section 5, "References." Please provide the reference and explain why the child rate is the same as the adult for a 15 kg weight child and why this inhalation rate varies. Using the scenario depicted on Table 2-10, I calculated an adjusted inhalation factor of 19.92. Using EPA's defaults of adult inhalation rate of 20 m<sup>3</sup>/day and child inhalation rate of 10, the adjusted inhalation factor is 22.57.

Page 3-8: We do not know of any Region 6 soil benchmark values for ecological risk. What does the document refer to?

Table 3-2, Sample Preassessment Evaluation: The contaminant concentrations of the current condition should be used for selecting COCs. It appears that historic data was used for this evaluation. Concerning future use, we would think that it is the lack of watering rather than the switch to native plants that will reduce the amount of species use in this area. Also, we don't understand the significance to the risk management decision of the magnitude of exceedance description without the relationship of the detection values to the TRVs.

Figure 3-3. We note that this figure has some missing prey-predator connections. For instance, coyotes also eat rabbits and Deer Mice. Please make sure that the web is complete for all of the selected receptors.

If you have any questions on these comments, please contact me at (214) 665-2196.

Sincerely,



Charles Hendrickson  
New Mexico & Federal  
Facilities Section

cc:

✓ Julie Wanslow, NMED  
Beverly Post, USACE  
Mark Blakeslee, DOI-BLM

