



HERB / Bruce  
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 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 6  
 1445 ROSS AVENUE, SUITE 1200  
 DALLAS, TEXAS 75202-2733

FILE KAFB RED 91



August 9, 1991

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Jack A. Martines, Director  
 Environmental Management Division  
 Headquarters 1606th Air Base Wing (MAC)  
 Kirtland Air Force Base, New Mexico 87117-5000

SS

Dear Colonel Martines:

We have completed a technical review of the Kirtland Tijeras Arroyo and RFI workplans dated April 11, 1991, and have determined that both workplans are deficient. A list of deficiencies for both workplans are attached for your review.

**You shall have 30 days from the receipt of this letter to submit modified workplans which address the enclosed deficiencies.** If these modified workplans are not approved, we may make further modifications as required. These modified workplans then become the approved RFI and Tijeras Arroyo workplans. In addition, the Region recommends that Kirtland schedule a meeting with EPA so that the details of these deficiencies can be discussed and clarified.

If you have any questions concerning this matter, please contact Richard Mayer of my staff at (214) 655-6775.

Sincerely yours,

W K Honker

William K. Honker, P.E.  
 Chief  
 RCRA Permits Branch

Enclosure

cc: Benito Garcia, NMED

9-5-91  
 RICH MAYER - 20-25 for Steve Smith's, they resubmitted already, they will be submitting ~~of~~ more data this week. JK

KAFB1149



## DEFICIENCIES ON RFI WORKPLAN FOR KIRTLAND AFB

Landfill No. 1: The workplan needs to clarify which wells will be sampled and analyzed for what constituents. Also, the soil borings need to be clarified on what they will be analyzed for and at what depths. Example: Well No.s 2, 3, and 4 will be sampled for total metals, volatile organics, and semi-volatiles. (analytical methods are on Table 1.) They will be sampled, handled, and analyzed according to corresponding sections 3.1 thru 3.4. Soil borings 2,4,5, will be sampled for total metals, volatile organics, pesticides, and semi-volatiles (methods on Table 1). These borings will be sampled at the 2', 5', 10', 15' and 25' intervals. They will be drilled with a hollow-stem auger and collected with a split-spoon sampler. Samples will be collected, handled, and analyzed per sections 2.6 thru 2.9 of this workplan.

Additional comments Landfill 1: Are the borings vertical, or are they slanted? Also, the proposed well on the northeast corner of landfill 1 seems to be located out of the northly gradient flow direction.

Landfill No. 2: Same comments as LF1. Also are the borings located near the place where wastes were dumped according to a newspaper article in the Albuquerque Journal of April 25, 1982?

Landfills No. 4,5,6: Same as LF 1 comments.

Fire Training Pit: Same as LF1 comments. Since this unit received liquid waste as far back as the fifties, borings should be taken where the old pits were and locations where liquid oily wastes were most concentrated in the fire training uses of the unit. An additional two borings may be needed inside the circle pit area.

Explosive Ordnance Disposal Range: Not enough information is given to understand whether a proper investigation was done. Please send these results in the RFI NOD submittal to EPA so a determination can be made from this information.

McCormick Ranch: Same as LF 1 comments.

Landfill No. 3: Kirtland needs to include a contingency sampling plan.

Landfill C: Same as LF 1 comments.

Abandoned Landfill: Sampling contingency needs to be included.

Manzano Sewage Lagoons No. 1, 2, 3, 4, Drying Beds/Imhoff Tank: Same as LF 1 comments.

**Manzano Dump:** Same as LF 1 comments.

**Radioactive Burial Site RB-11:** Additional investigation information needed is needed in the RFI Workplan. This should include soil borings or other direct investigation techniques.

**Fill Area SE of Kirtland Sewage Lagoons:** Same comments as LF-1. Also, has Kirtland given thought to trenching across this fill material to view a cross section of this unit.

**Unnamed Dump:** Same as LF 1 comments.

**Lake Christian:** Same as LF 1 comments.

**Landfill A:** Same as Lf 1 comments.

**Landfill B:** Same as LF 1 comments.

**Page 66 or 67:** More discussion is needed on the geophysical and gas survey sections.

**Page 69:** More detailed information is needed on well installation, soil borings , and groundwater samples. The soil boring section should contain more detail on collection and handling procedures and decontamination methods. For landfills 1, 2, and the McCormick Ranch SWMU's the RFI workplan should contain the following in more detail:

1. Monitoring well design and construction and schedules for installation;
2. Groundwater sampling, handling, and decontamination procedures and laboratory QA/QC procedures.

**Page 88:** The Schedule needs to be clarified as to when the RFI report for the Appendix I SWMU's is due.

**General Comment:** Please include the community relations plan with the RFI Workplan. In addition, the Region recommends that Kirtland send all draft workplans and reports required by this permit to interested parties/organizations to avoid potential disagreements.

**Health and Safety Plan:** Is the health and safety plan in the Tijeras Arroyo workplan supposed to be used for the RFI Workplan?

## Tijeras Arroyo Soil Characterization Workplan Deficiencies

**General comment on Tijeras Workplan:** The Region believes that the overall quality and approvability of the workplan could be enhanced by increasing the number of constituents analyzed for each soil interval (such as codes 1-4). In turn, some of the borings at drains (or other locations) could be eliminated, focusing the tributary borings at strategic locations, such as ponding areas from landfills or other likely source areas which could contribute to surface water (runoff) contamination.

**General Comment on Tijeras Arroyo Samples:** For better correlation of samples, all borings should be taken at relatively the same intervals (if practical) and should be sampled for analytical codes 1, 2, 3, and 4. Also, the 100 foot boring, TA-9, needs to have a 50 foot interval for better control of gaps. For example, boring TA-9 should be sampled at the 5', 10', 25', 50', and 100' intervals. These intervals should be analyzed for codes 1-4. In addition, TA borings 5, 4, and 3 should have a 75 foot sampling interval included.

**Background Borings:** It is recommended that Kirtland take 1 background boring down to 100 feet for their own benefit. There could be deeper layers which have higher natural metal concentrations than in upper layers. Also, Kirtland may have background borings from other studies that may be used or helpful for this investigation.

**Section 5.5.3.:** Please explain how soil samples are determined to be analyzed by the field-portable gas chromatograph? Is there a PID or OVA instrument indicating above background levels of contaminants in the soil(s)?

Also, please elaborate on how you get higher concentrations in headspace analysis versus soil samples submitted for analysis.

**Scheduling:** Please give a schedule which includes timeframes for each activity included in this investigation.