



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

MAY 22 1995

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Scott E. Streifert, Major, USAF  
Director, Environmental Management Division  
377 ABW/EM  
2000 Wyoming Boulevard SE  
Kirtland Air Force Base, NM 87117-5659

Dear Major Streifert:

The Environmental Protection Agency (EPA) has completed a technical review of your Tijeras Arroyo Limited RFI, dated November 7, 1994. Please submit a response to the attached comments within 45 days of receipt of this letter.

The EPA understands that Kirtland does not consider the submittal of this report a specific permit requirement. However, permit condition C.2.b requires that a soil sampling plan and investigation address "... areas within Tijeras Arroyo floodplain and channel." EPA, therefore, reviewed the report to determine if the nature and extent of any contamination within the Tijeras Arroyo channel and floodplain had been adequately characterized. The technical adequacy of the field procedures, analytical methods, and investigative conclusions were also reviewed.

Please note that the New Mexico Environment Department (NMED) has not reviewed the Tijeras Arroyo RFI Report and may submit comments at a later date. \*

If you have any questions or need additional information, please contact Nancy Morlock of my staff at (214) 665-6650.

Sincerely yours,

*Barbara Dr. Neleigh*

David W. Neleigh, Chief  
New Mexico/Federal Facilities  
Section, RCRA Permits Branch

cc: Mr. Benito Garcia  
New Mexico Environment Department

KAFB1620



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## COMMENTS

1. In Section 2.0 Project Activities, page 13, the RFI Report states that the New Mexico Environmental Improvement Division conducted an inspection of Kirtland Air Force Base (KAFB) in July 1990. The inspection revealed that KAFB was in violation of the New Mexico Water Quality Control Commission Regulations because inspectors noted the presence of refuse, including oil contaminants, in the arroyos.

In September 1990, the New Mexico Environment Department (NMED) issued a notice of violation (NOV) which required that all contaminated soils be removed from the arroyos. In September 1991, the Tijeras Arroyo Soil Characterization Work Plan was prepared and subsequently approved by NMED and EPA.

The Tijeras Arroyo RFI Report states that this work plan and the RFI investigation partially satisfied the requirements of the NOV by providing a mechanism for determining whether contaminated soils requiring removal were present in the arroyos. However, the RFI Report does not specifically address or describe the contaminated areas noted by NMED. Therefore, it cannot be determined if these contaminated soils were sampled and characterized as a part of this RFI investigation. If characterization of these contaminated soils was included in the RFI investigation, the report should clarify their locations and the sampling activities. If not, the RFI Report should state that these areas were not specifically identified and sampled.

2. Methylene chloride and bis(2-ethylhexyl)phthalate concentrations exceeded either ten times the blank concentration and/or detection limit in several samples from study areas 5,6,7,8,9,10, and 12. The possibility of organics contamination in these areas should be reevaluated.
3. The following table displays the metals that exceeded their calculated preventive action limits (PAL) and/or the United States Geological Survey (USGS) background concentrations for the Albuquerque area. The proposed 40 CFR 264 Subpart S risk-based action levels are provided for further comparison.
4. Although the background study was site-specific to KAFB and the PALs were calculated by using a rather liberal statistical methodology, KAFB consistently defaulted to the United States Geological Survey (USGS) observed concentrations in the Albuquerque area to determine whether detected concentrations indicated possible contamination. Only in study area 11 did the observed sample concentrations exceed both the PALs and USGS observed concentrations.

The report concludes that all concentrations detected—whether above the PALs and/or USGS observed concentrations—are within naturally occurring ranges for soil and placer deposits in the Albuquerque area. Based on the background study performed (1) contamination potentially exists within these study areas and requires further evaluation, or, (2) a more appropriate background study that provides representative site-specific concentrations needs to be performed.

Metal	Study Area and Sample No.	Depth (feet below ground surface)	Concentration (milligrams per kilogram)			
			Sample	PAL	USGS	Subpart S Action Level
Arsenic	9, TA-2	25	7	3.7	6.5-10	80
	11, TA-7	10	5.3			
	11, TA-9	5	8.8			
	11, TA-9	95	17.3			
Barium	11, TA-7	10	307	266.2	>1,000	4,000
	11, TA-9	25	295			
	11, TA-9	95	1,340			
	5, TT-9	25	320			
	7, TT-12	25	314			
	7, TT-17	5.5	883			
Chromium	10, TA-3	95	29.2	16.4	50-70	400
	10, TA-5	75	18.7			
	11, TA-7	5	17.1			
	11, TA-7	10	30.0			
	11, TA-9	10	23.4			
	11, TA-9	25	22.4			
	11, TA-9	95	47.2			
	2, TT-5	25	17.5			
5, TT-9	25	20.6				
Lead	11, TA-9	95	39.1	23.1	15	Not established
	4, TT-7	29	54.5			