



## DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 27th FIGHTER WING (ACC)  
CANNON AIR FORCE BASE, NEW MEXICO

25 FEB 1994

27 FW/CC  
100 S DL Ingram Blvd Suite 100  
Cannon AFB NM 88103-5214

Ms. Barbara Hoditschek  
Manager, RCRA Permits Program  
Hazardous & Radioactive Materials Bureau  
1190 St Francis Drive  
P O Box 26110  
Santa Fe NM 87502


Dear Ms. Hoditschek

Thank you for your comments and assistance on our Resource Conservation and Recovery Act (RCRA) Subpart X permit application for Melrose Air Force Range (AFR). We feel the meeting between your staff, our environmental office and contractor on February 1, 1994 to discuss these comments was paramount in our successfully completing the necessary revisions.

In response to your comments you will find answers to your specific questions at Attachment 1. We have also included a revised Part A application (Attachment 2). Supporting documentation such as the new Baseline Characterization Sampling and Analysis Plan, the Environmental Soil Monitoring Sampling and Analysis Plan, Contingency Plan, and necessary corrected pages are also attached.

Together, we have set the pace for the Air Force and the nation by working closely on this project. Without your support we could not have accomplished this level of quality. We look forward to working with you to finalize the permit. If you have any questions, please contact Capt Greg Walters at (505) 784-4348.

Sincerely

  
WILLIAM M. GUTH  
Brigadier General, USAF  
Commander

Attachments:

1. Revised Part A Application
2. Response to NOD
3. Baseline Sampling Plan
4. Soil Sampling Plan
5. Contingency Plan
6. Correction Pages

1a: There are no specific problems associated with analytical detection of explosive residues, toxic metals, etc resulting from incomplete combustion of reactive wastes. Cannon AFB has rewritten the environmental media monitoring plan (Atch 4) to increase the level of confidence in finding potential contamination. This new monitoring plan will take into account mechanical transport and dilution of contamination.

1b: This new monitoring plan will take into account mechanical transport and dilution of contamination. This includes biasing the sampling strategy to account for wind direction at time of detonation, sampling at depth within the detonation area (Ground Zero), and having additional samples in reserve, should potential transport of contamination extend beyond existing sampling plan boundaries.

2. The methodology and calculation for the revised sampling plan are contained in the plan at Atch 4.

3. Based upon our 1 Feb 94 meeting, we have agreed to conduct additional baseline characterization for the modified Appendix VIII analytes. A Baseline Characterization Sampling and Analysis Plan has been provided for your review (Atch 3). A brief justification for the modified Appendix VIII listing is contained in this plan.

4. Method 8330 cannot be used as an indicator for tracing other compounds. However, the primary indicator of contamination at OD units is metals. Metals also represent the most persistent form of contamination. The "Bang Box Studies" (Johnson 1991 and 1993) indicated semi-volatile organics releases were approximately two orders of magnitude less than metals releases. Since the compounds of Method 8330 are primarily SVOCs, it will provide an indication of SVOC presence for these target items. Baseline sampling will include SVOC analysis. If baseline sampling indicates the presence of SVOCs, we would recommend modifying the routine monitoring plan to replace explosives with SVOCs.

5. Migration potential will be monitored by biasing the sampling plan toward likely avenues of migration (e.g. wind direction, run-off avenues, and depth samples). If contamination is found, the presence and extent of contamination will be confirmed. Details regarding this are contained in the environmental monitoring sampling and analysis plan at Atch 4.

6. The hypothesis for a low migration potential has been complemented with additional data and a stronger soil sampling and analysis plan.

7a. Table C-3 which listed potential waste munitions to be treated has been rewritten to include only those wastes where the treatment standard specified in Air Force Technical Order 11A-1-42 *General Instructions for Disposal of Conventional Munitions* (Part B application Appendix D1-3) is detonation. Those items whose treatment standard specifies burning will not be treated at the OD unit. A revised table C-3 is located in Atch 2 with the revised Part A application and in Atch 6 as correction pages.

7b. Propellants will not be detonated at the OD unit, unless OD is the recommended treatment options. In addition, the "Bang Box Studies" (Johnson, 1991 and 1993) identified the primary indicators of contamination to be metals. Sampling for explosives (EPA 8330) would determine if any whole propellant grains were dispersed during a detonation event. By products from other munition items would be broken down to basic organics, most of which would be vaporized during the detonation because detonation is more relative to intended use.

8. The source of this information was Headquarters Air Combat Command who formulated the listing in conjunction with several munitions manufacturers, US EPA, and the DoD Explosives Safety Board.

9a. Action levels have been calculated for all items with an applicable reference dose (RfD). However, since some background levels are above calculated action levels, the action level has been increased accordingly. The additional baseline sampling will better establish background levels to reconfirm selected action levels.

9b. Remedial action procedures are described in the revised soil sampling and analysis plan.

10a. Present job titles will not change until the reclassification is complete. In order for this to happen the Skill Training Syllabus (STS) is presently under revision. When the STS is released for implementation, the permit data will be updated accordingly. Until this time, old position titles will remain the same.

10b. Sampling and analysis will normally be conducted by a qualified contractor. We have added qualification requirements for contract personnel to have proper 29 CFR 1910 certification and a minimum of 2 years of experience. This has been added to the personnel training section of the part B permit application. The correction page is located at Atch 6.

11 The Melrose AFR contingency plan has been rewritten and is provided at Atch 5.

12. The apparent conflict in delineation of the 100 yr flood plain was because the original drawing by USGS was not properly scaled. Cannon AFB and Radian personnel conducted additional surveys to gain more detail with relation to the flood plain and the location the OD unit. USGS was able to provide more accurate location of the flood plain with this survey data.

13a. References to regional or perched aquifer flow have been corrected.

13b. Quantities of waste explosives have been updated to reflect consistency between the Part A and Part B applications. A revised part A application is provided at Atch 5 to include new commander signatures.

13c. The relationship between potential contamination and chemical analysis from the potable water well have been deleted. The potable water well is screened in the Ogalala aquifer.

2/24/94

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Approved. OMB No. 2050-0034 Expires 12-31-91  
GSA No. 0246-EPA-OT

For EPA Regional Use Only	 <b>EPA</b> United States Environmental Protection Agency Washington, DC 20460 <h1 style="margin: 0;">Hazardous Waste Permit Application</h1> <h2 style="margin: 0;">Part A</h2> <p style="font-size: small;">(Read the Instructions before starting)</p>	For State Use Only
Date Received Month Day Year		

**I. ID Number(s)**

<b>A. EPA ID Number</b>	<b>B. Secondary ID Number (if applicable)</b>
N M 5 5 7 2 1 2 4 4 5 6	

**II. Name of Facility**

M E L R O S E   A I R   F O R C E   R A N G E
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**III. Facility Location (Physical address not P.O. Box or Route Number)**

**A. Street**

6 m i   W e s t   5 m i   S o u t h
-------------------------------------

**Street (continued)**

<b>City or Town</b>	<b>State</b>	<b>ZIP Code</b>
M e l r o s e	N M	8 8 1 2 4 -

<b>County Code (if known)</b>	<b>County Name</b>
	C u r r y / R o o s e v e l t

**B. Land Type      C. Geographic Location      D. Facility Existence Date**

<b>(enter code)</b>	<b>LATITUDE (degrees, minutes, &amp; seconds)</b>	<b>LONGITUDE (degrees, minutes, &amp; seconds)</b>	<b>Month   Day   Year</b>
F	3 4 1 7 0 3 9	1 0 3 4 7 0 1 1	0 1 0 1 1 9 4

**IV. Facility Mailing Address**

**Street or P.O. Box**

2 7   F W / C C   1 0 0   D L   I n g r a m   B l v d
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<b>City or Town</b>	<b>State</b>	<b>ZIP Code</b>
C a n n o n   A F B	N M	8 8 1 0 3 - 5 0 0 0

**V. Facility Contact (Person to be contacted regarding waste activities at facility)**

<b>Name (last)</b>	<b>(first)</b>
O S H I T A	B R U C E

<b>Job Title</b>	<b>Phone Number (area code and number)</b>
C H I E F   C E V	5 0 5 - 7 8 4 - 4 3 4 8

**VI. Facility Contact Address (See instructions)**

<b>A. Contact Address Location</b>	<b>B. Street or P.O. Box</b>
X	2 7   C E S   1 1 1   E N G I N E E R S   W A Y

<b>City or Town</b>	<b>State</b>	<b>ZIP Code</b>
C A N N O N   A F B	N M	8 8 1 0 3 - 5 1 3 6



EPA I.D. Number (enter from page 1)										Secondary ID Number (enter from page 1)											
N	M	5	5	7	2	1	2	4	4	5	6										

**XI. Nature of Business (provide a brief description)**

This facility will be utilized for Open Detonation for the demilitarization of munitions, munition related items, and similar reactive items. Items are transported from Cannon AFB to Melrose Range on military vehicles. The operation is conducted as described in the Part B Permit Application Section D.

**XII. Process - Codes and Design Capacities**

- A. **PROCESS CODE** - Enter the code from the list of process codes below that best describes each process to be used at the facility. Twelve lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided in Item XIII.
- B. **PROCESS DESIGN CAPACITY** - For each code entered in column A, enter the capacity of the process.
  - 1. **AMOUNT** - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process unit.
  - 2. **UNIT OF MEASURE** - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.
- C. **PROCESS TOTAL NUMBER OF UNITS** - Enter the total number of units used with the corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	UNIT OF MEASURE	UNIT OF MEASURE CODE
	<b>DISPOSAL:</b>		GALLONS .....	G
D79	INJECTION WELL	GALLONS; LITERS; GALLONS PER DAY; OR LITERS PER DAY	GALLONS PER HOUR .....	E
D80	LANDFILL	ACRE-FEET OR HECTARE-METER	GALLONS PER DAY .....	U
D81	LAND APPLICATION	ACRES OR HECTARES	LITERS .....	L
D82	OCEAN DISPOSAL	GALLONS PER DAY OR LITERS PER DAY	LITERS PER HOUR .....	H
D83	SURFACE IMPOUNDMENT	GALLONS OR LITERS	LITERS PER DAY .....	V
	<b>STORAGE:</b>		SHORT TONS PER HOUR .....	D
S01	CONTAINER (barrel, drum, etc.)	GALLONS OR LITERS	METRIC TONS PER HOUR .....	W
S02	TANK	GALLONS OR LITERS	SHORT TONS PER DAY .....	N
S03	WASTE PILE	CUBIC YARDS OR CUBIC METERS	METRIC TONS PER DAY .....	S
S04	SURFACE IMPOUNDMENT	GALLONS OR LITERS	POUNDS PER HOUR .....	J
	<b>TREATMENT:</b>		KILOGRAMS PER HOUR .....	R
T01	TANK	GALLONS PER DAY OR LITERS PER DAY	CUBIC YARDS .....	Y
T02	SURFACE IMPOUNDMENT	GALLONS PER DAY OR LITERS PER DAY	CUBIC METERS .....	C
T03	INCINERATOR	SHORT TONS PER HOUR; METRIC TONS PER HOUR; GALLONS PER HOUR; LITERS PER HOUR; OR BTU'S PER HOUR	ACRES .....	B
			ACRE-FEET .....	A
			HECTARES .....	Q
			HECTARE-METER .....	F
			BTU's PER HOUR .....	K
T04	OTHER TREATMENT <small>(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundment or incinerators. Describe the processes in the space provided in Item XIII.)</small>	GALLONS PER DAY; LITERS PER DAY; POUNDS PER HOUR; SHORT TONS PER HOUR; KILOGRAMS PER HOUR; METRIC TONS PER DAY; METRIC TONS PER HOUR; OR SHORT TONS PER DAY		



EPA I.D. Number (enter from page 1)

Secondary ID Number (enter from page 1)

N M 5 5 7 2 1 2 4 4 5 6

**XII. Process - Codes and Design Capacities (continued)**

EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

Line Number	A. PROCESS CODE (from list above)			B. PROCESS DESIGN CAPACITY		C. PROCESS TOTAL NUMBER OF UNITS	FOR OFFICIAL USE ONLY				
				1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)						
X 1	S	0	2	600	G	0	0	2			
X 2	T	0	3	20	E	0	0	1			
1	T	0	4	1000*	J	0	0	1			
2											
3											
4											
5											
6											
7											
8											
9											
1 0											
1 1											
1 2				* See Comments							

NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.

**XIII. Additional Treatment Processes (follow instructions from Item XII)**

Line Number (enter numbers in sequence with Item XIII)	A. PROCESS CODE			B. TREATMENT PROCESS DESIGN CAPACITY		C. PROCESS TOTAL NUMBER OF UNITS	D. DESCRIPTION OF PROCESS		
				1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)				
0 1	T	0	4	1000	J	0	0	1	Munition items (wastes) are detonated in a bermed area utilizing plastic explosive as an initiator (See Section D for more detail)
									* See comments
	T	0	4						
	T	0	4						
	T	0	4						

EPA I.D. Number (enter from page 1)										Secondary ID Number (enter from page 1)													
N	M	5	5	7	2	1	2	4	4	5	6												

**XIV. Description of Hazardous Wastes**

- A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

**D. PROCESSES**

**1. PROCESS CODES:**

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that processes that characteristic or toxic contaminant.

**NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:**

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item XIV-D(f).
3. Enter in the space provided on page 7, Item XIV-E, the line number and the additional code(s).

**2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER-** Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) -** A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA HAZARD WASTE NO. (enter code)					B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESS														
	(1) PROCESS CODES (enter)										(2) PROCESS DESCRIPTION (if a code is not entered in D(1))											
X 1	K	0	5	4		900	P	T	0	3	D	8	0									
X 2	D	0	0	2		400	P	T	0	3	D	8	0									
X 3	D	0	0	1		100	P	T	0	3	D	8	0									
X 4	D	0	0	2																		Included With Above



EPA ID Number (enter from page 1) Site ID Number (enter from page 1)

N	M	5	5	7	2	1	2	4	4	5	6										
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**XIV. Description of Hazardous Wastes (continued)**

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	(1) PROCESS CODES (enter)										(2) PROCESS DESCRIPTION (if a code is not entered in D(1))							
	D	0	0	3			T	0	4															
1	D	0	0	3	8000	P	T	0	4														See Atch listing and in Section C	
2																								
3																								
4																								
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