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February 21, 1996

96-RM-TA-0046-KH

Karan North, Division Manager  
 Compliance and Performance Assurance  
 Building T130C  
 Kaiser-Hill, L.L.C.

Attn: Kyle Peter

Subject: CLOSURE PLAN FOR RCRA UNIT 2 - CCJ-055-96

Action: Transmit RCRA Unit 2 Closure Plan

Rocky Mountain Remediation Services, L.L.C., (RMRS) is submitting the attached Resource Conservation and Recovery Act (RCRA) Closure Plan for RCRA Unit 2, Drum Storage Area - Building 331.

This unit is no longer in service and must undergo RCRA closure. Unit 2 has been identified for future use as a nonhazardous equipment storage facility, but will not be used until closure certification is obtained. Please transmit this closure plan to the Department of Energy, Rocky Flats Field Office (DOE, RFFO) for submittal to the Colorado Department of Public Health and the Environment (CDPHE). Also, attached are draft letters to DOE and CDPHE.

If you have any questions or require additional information, please contact Bryan Shelton at extension 6231.

*Candice C. Jierree*  
 Candice C. Jierree  
 Technical Assurance, RMRS

BES

Attachments:  
 As Stated (3)

- cc:
- D. L. Gorman - SSOC
  - K. A. Holstein - DynCorp
  - G. R. Konwinski - RMRS
  - R. M. Leitner - Kaiser-Hill
  - R. L. Mitchell - DynCorp
  - K. G. Peter - Kaiser-Hill
  - B. E. Shelton - RMRS
  - K. W. Ticknor - RMRS
  - Correspondence Control - RMRS
  - File
  - 11.020.1.F

**ADMIN RECCRD**

IA-A-000722

4/10

**DRAFT            DRAFT            DRAFT**

Steve Tower  
Environmental Assessment Group  
Rocky Flats Field Office  
U. S. Department of Energy

Attn: Dave Maxwell

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CLOSURE PLAN FOR RCRA UNIT 2 - KN-XXX-96**

Kaiser-Hill Company, L.L.C., is submitting the attached closure plan for RCRA Unit 2.

Unit 2 was included in the Part A Permit Application as an Interim Status unit, and is to be closed with an approved closure plan as defined in 6 CCR 1007-3, Part 265. Unit 2 is no longer in service and thus should be closed as soon as possible. We request that the attached letter and closure plan be forwarded to CDPHE as soon as possible to allow for the forty-five day notification prior to initiating closure as required by the Colorado Hazardous Waste Regulations 6 CCR 1007-3, Part 265.112 (d).

If you have questions, please contact Kyle Peter at extension 7752, or Bryan Shelton of RMRS at extension 6231.

Karan North  
Compliance and Performance Assurance  
Kaiser-Hill

Attachment:  
As Stated

Orig. and 1 cc. - Steve Tower

Distribution w/attachment:  
D. Grosek - DOE, RFFO  
K. G. Peter - Kaiser-Hill  
R. M. Leitner - Kaiser-Hill  
B. E. Shelton - RMRS  
K. W. Ticknor - RMRS

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**DRAFT                      DRAFT                      DRAFT**

Mr. Joe Schieffelin, Unit Leader  
Colorado Department of Public Health and the Environment  
4300 Cherry Creek Drive South  
Denver, Colorado 80222-1530

Dear Mr. Schieffelin:

The United States Department of Energy, Rocky Flats Field Office (DOE/RFFO) is submitting the enclosed Resource Conservation and Recovery Act (RCRA) Closure Plan for RCRA Unit 2. The unit was included in the Part A Permit Application as an Interim Status unit and is to be closed with an approved closure plan. Unit 2 is now out of service and should undergo closure. We request CDPHE approve the closure plan as soon as possible. In addition, this correspondence also provides the required forty-five day notification prior to initiating closure per guidelines in the Colorado Hazardous Waste Regulations 6 CCR 1007-3, Part 265.112 (d).

If you have any questions, please contact Dave Maxwell of my staff at 966-4017.

Enclosure

cc w/ enclosure

C. Gilbreath - CDPH&E  
K. A. Holstein - DynCorp  
D. Maxwell - DOE, RFFO  
K. W. Ticknor - RMRS

cc (w/o enclosure)

G. L. Gorman - SSOC  
L. Guinn - RMRS  
C. C. Jierree - RMRS  
G. R. Konwinski - RMRS  
R. Leitner - Kaiser-Hill  
R. L. Mitchell - DynCorp  
K. North - Kaiser-Hill  
K. G. Peter - Kaiser-Hill  
B. E. Shelton - RMRS



**RCRA Closure Plan  
RCRA Unit 2  
Building 334, Drum Storage Area**

EPA ID No. C07890010526



Exempt from Classification  
per CEX-003-95 - RCRA only

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Closure Plan - RCRA Unit 2 (Drum Storage Area)

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## 1.0 Introduction

This plan addresses closure of Resource Conservation and Recovery Act (RCRA) Unit 2 (Drum Storage Area, Building 331), an interim-status unit at the Rocky Flats Environmental Technology Site (RFETS). This closure constitutes partial closure of the Rocky Flats facility. Unit 2 is a 20-foot long by 9-foot wide cargo container located near the Building 331 vehicle maintenance facility; the cargo container temporarily stored hazardous wastes. Unit 2 has been identified for future use as a nonhazardous equipment storage facility, and will not be released from the Site. Unit 2 will not be used until a closure plan has been approved by the Colorado Department of Public Health and the Environment (CDPHE) and certification of closure has been received by a Colorado-registered professional engineer.

## 2.0 Facility Contact

The RFETS contact for closure activities is the following:

Manager, Rocky Flats Field Office  
U. S. Department of Energy  
P. O. Box 928  
Golden, Colorado 80402-0928  
Telephone: (303) 966-2025

## 3.0 Unit Closure Notification and Certification

The closure of RCRA Unit 2 constitutes partial closure of RFETS. Within 60 days after completion of RCRA closure, the facility will submit to the Colorado Department of Public Health and the Environment (CDPHE) certification that the unit has been closed in accordance with the approved closure plan. The certification will be signed by an independent, Colorado-registered professional engineer.

## 4.0 Regulatory Requirements

An approved closure plan for closure of interim status RCRA units at the RFETS is required pursuant to 6 Colorado Code of Regulations (CCR) 1007-3, Part 265 of the Colorado Hazardous Waste Regulations.

## 5.0 Unit Description and Waste Characterization

Unit 2 was placed into service in March 1987 and was operated until August 1988. It was used for management of hazardous waste generated from vehicle maintenance facility operations. The specific wastes stored in the unit included used oil, antifreeze, an ignitable solvent as well as oil-contaminated combustibles.

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The used oils were potentially contaminated with RCRA-regulated heavy metals (barium, cadmium, chromium, and lead) as defined in 6 CCR 1007-3, Part 261. These wastes were stored in Department-of-Transportation-approved drums, with drip pans serving as secondary containment. These wastes were temporarily stored in Unit 2 and were routinely transferred to RCRA Unit 1 (Main Hazardous Waste Storage Area), where they were staged for pickup by a vendor for offsite treatment and/or disposal.

## **6.0 Closure Performance Standards**

RCRA Unit 2 will be clean closed by removing all hazardous wastes and hazardous waste residues. Since there is no history of spills at the Unit, and considering the management practices associated with the hazardous waste stored in this unit, clean closure performance will be confirmed by the following process.

- The wood floor will be removed and disposed of in accordance with applicable waste regulations.
- The drip pans will be removed for use in another RCRA-regulated unit at the Site.
- The walls and floors of Unit 2 will be rinsed using an approved spray and wash treatment technology as defined in Part IX of the Rocky Flats RCRA Part B Permit.
- Results from the analysis of the spent rinsate shall indicate the absence of significant contamination levels of barium, cadmium, chromium, and lead, as determined by an independent, Colorado-registered professional engineer.
- In addition to evaluating the spent rinsate data, the certifying engineer will perform a visual inspection of the empty cargo container to verify the absence of spill residuals.

## **7.0 Sampling and Analysis**

Sampling methods shall follow those listed in Part IV of the Rocky Flats RCRA Permit. Rinsate sampling is appropriate for verification of the absence or presence of residual from the hazardous waste historically stored in the unit.

### **7.1 Analytical Methods**

RFETS laboratories will analyze the rinsate samples unless unforeseen circumstances prevent it. If an offsite laboratory is tasked with the analytical work, an RFETS approved laboratory will be used. The analytical test methods for verification of compliance with the closure performance standard shall be consistent with the approved methods listed in Part IV of the Rocky Flats RCRA Permit.

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## 8.0 Specific Closure Activities

Following is a summary of the actions that will be performed to ensure that the closure is conducted in accordance with the applicable closure requirements as described in 6 CCR 1007-3, Subpart G.

- 1) The drip pans will be removed and reused in another RCRA-regulated unit at the Site.
- 2) The plywood floor will be removed and disposed of in accordance with applicable waste disposal regulations.
- 3) An existing temporary containment area constructed of low-density polyethylene will be used to contain the cargo container and the spent rinsate generated from steam cleaning the interior of the cargo container.
- 4) Background samples will be taken from operating the steam generating equipment by applying hot water/steam to the temporary polyethylene liner.
- 5) The cargo container will be placed inside the temporary polyethylene containment, where the interior of the cargo container will undergo rinsing. The rinsate collected will be evaluated against the closure performance standard.
- 6) Cargo container rinsing will be performed by applying hot water/steam to its ceiling and walls using a portable hot water/steam generator that produces high pressure hot water/steam at about 200°F and 1,000 PSI. The spent rinsate will be collected in the temporary containment. Two applications of hot water/steam will be applied to the interior surfaces of the cargo container using approximately 10 gallons of deionized water per application.
- 7) After the final rinse, representative spent rinsate samples, as specified in the approved Sampling and Analysis plan, will be taken from the temporary containment.
- 8) Excess spent rinsate will be vacuumed, placed into a container that is placed in a 55-gallon drum and treated and/or disposed of as appropriate.
- 9) The cargo container will be allowed to air dry. The cargo container will then be inspected for hazardous waste debris or residuals.

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## 8.1 Estimated Liquid Waste Volumes

**8.1.1 Estimated Minimum Liquid Waste Volumes.** The minimum volume of liquid waste generated will be based on the following condition:

- After washing and final rinsing, spent rinsate analysis and visual inspection indicates that the closure performance standard has been achieved, thus no further decontamination will be required.

Given this condition, it is expected that the minimum amount of water generated from closure activities will be approximately 10 gallons of spent rinsate.

**8.1.2 Estimated Maximum Liquid Waste Volumes.** The maximum volume of liquid waste generated will be based on the following condition:

- After washing and final rinsing, spent rinsate analysis and visual inspection indicates that additional decontamination is necessary to meet the closure performance standard. The amount of liquid waste generated is dependent on the number of rinses required to meet the closure performance standard.

Given this condition, the estimated liquid waste generated based on a triple rinse of the cargo container will be approximately 30 gallons.

## 8.2 Estimated Solid Waste Volumes

**8.2.1 Minimum Solid Waste Volumes.** The minimum volume of solid waste generated will be based on the following condition:

- The minimum volume of solid waste expected to be generated is based on the same condition that describes the minimum volume of liquid waste generated (no additional rinse cycle required to meet closure performance standards).

Given this condition, the minimum amount of solid waste expected to be generated would be approximately 18 cu. ft. The types of solid waste expected to be generated during this closure include the wood floor, personal protective equipment (PPE), discarded vacuum material (plastic bags and hose) as well as absorbent wipes.

**8.2.2 Maximum Solid Waste Volumes.** The maximum volume of solid waste expected to be generated will be based on the following condition:

- The maximum volume of solid waste expected to be generated is based on the same condition that describes the maximum volume of liquid waste generated (additional rinse cycles required to meet closure performance standards)

Given this condition, the maximum volume of would be approximately 20 cu. ft. The types of solid waste expected to be generated during this closure include the wood floor, personal protective equipment (PPE), discarded vacuum material (plastic bags and hose) as well as absorbent wipes.

The temporary polyethylene liner and vacuum can/drum will be decontaminated and stored for future use.

## **9.0 Disposition of Waste**

Site waste management and treatment capabilities are available to receive the cleanup waste; this includes transferring the spent rinsate to Building 374 for treatment in the wastewater treatment facility, if necessary. RFETS waste management capabilities also include storage, and ultimately, treatment or shipment of certain hazardous soft wastes (such as absorbent wipes ) generated during closure activities.

## **10.0 Recordkeeping**

RFETS shall maintain the following closure records at the facility during closure activities and for a minimum of 3 years following closure certification:

- Record of sampling activities (date, number, and type)
- Analytical results
- Record of actions taken to decontaminate equipment or structures
- Work control documents governing the closure activity
- Other documentation verifying that RFETS followed the approved closure plan

## **11.0 Amendment of the Plan**

Unexpected events that occur during closure activities may require an amendment of the existing closure plan. Any request for modification of the closure plan will be made within 30 days of identification of the event that causes modification to be necessary.