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EG&G - ROCKY FLATS PLANT
ENVIRONMENTAL MANAGEMENT

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**ROCKY FLATS PLANT
EMD OPERATING
PROCEDURES MANUAL**

**Manual No.: 5-21000-OPS-FO
Procedure No.: Table of Contents, Rev 14
Page: 1 of 2
Effective Date: 05/22/92
Organization: Environmental Management**

THIS IS ONE VOLUME OF A SIX VOLUME SET WHICH INCLUDES:

**VOLUME I: FIELD OPERATIONS (FO)
VOLUME II: GROUNDWATER (GW)
VOLUME III: GEOTECHNICAL (GT)
VOLUME IV: SURFACE WATER (SW)
VOLUME V: ECOLOGY (EE)
VOLUME VI: AIR (AP)**

**TABLE OF CONTENTS
FOR VOLUME I: FIELD OPERATIONS**

<u>Procedure No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
FO.01	Air Monitoring and Dust Control	2	05/12/92
FO.02	Transmittal of Field QA Records	3	05/22/92
FO.03	General Equipment Decontamination	2	05/12/92
FO.04	Heavy Equipment Decontamination	2	05/12/92
DCN 92.01	Clarification of Work Area	1	01/31/92
DCN 92.02	Clarification of Center Bit Decontamination	1	03/12/92
FO.05	Handling of Purge and Development Water	2	05/12/92
FO.06	Handling of Personal Protective Equipment	2	05/12/92
FO.07	Handling of Decontamination Water and Wash Water	2	05/12/92
FO.08	Handling of Drilling Fluids and Cuttings	2	05/12/92
FO.09	Handling of Residual Samples	2	05/12/92
FO.10	Receiving, Labeling, and Handling Environmental Materials Containers	2	05/12/92

ADMIN RECORD

A-SW-000975

REVIEWED FOR CLASSIFICATION/UCM

By [Signature]

Date May 20, 1992

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**Manual No.: 5-21000-OPS-FO
Procedure No.: Table of Contents, Rev 14
Page: 2 of 2
Effective Date: 05/22/92
Organization: Environmental Management**

<u>Procedure No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
FO.11	Field Communications	2	05/12/92
FO.12	Decontamination Facility Operations	2	05/12/92
FO.13	Containerization, Preserving, Handling and Shipping of Soil and Water Samples	2	05/12/92
FO.14	Field Data Management	2	05/12/92
FO.15	Photoionization Detectors (PIDs) and Flame Ionization Detectors (FIDs)	2	05/12/92
FO.16	Field Radiological Measurements	2	05/12/92
DCN 92.04	Clarification of Seismic Lines	1	04/13/92
FO.17	Determining Out-Of-Specification Analytical Results for Environmental Samples		To Be Added
FO.18	Environmental Sample Radioactivity Content Screening	2	05/12/92
FO.19	Base Laboratory Work	2	05/12/92

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By J. L. Jones
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ENVIRONMENTAL MANAGEMENT

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HANDLING OF RESIDUAL SAMPLES

**EG&G ROCKY FLATS PLANT
EMD FIELD PROCEDURES SOP**

**Manual:
Procedure No.:
Page:
Effective Date:
Organization:**

**5-21000-OPS
FO.9, Rev. 2
1 of 8
March 1, 1992
Environmental Management**

Category 2

**TITLE:
HANDLING OF RESIDUAL SAMPLES**

Approved By:

5/12/92

(Name of Approver)

(Date)

1.0 TABLE OF CONTENTS

1.0	TABLE OF CONTENTS	1
2.0	PURPOSE AND SCOPE	2
3.0	RESPONSIBILITIES AND QUALIFICATIONS	2
3.1	SUBCONTRACTORS	2
3.2	LABORATORY	2
3.3	EG&G	3
4.0	REFERENCES	3
4.1	SOURCE REFERENCES	3
4.2	INTERNAL REFERENCES	3
5.0	PROCEDURE FOR THE HANDLING OF RESIDUAL SAMPLES	4
5.1	RECEIVING RESIDUAL LABORATORY SAMPLES	4
5.2	CHARACTERIZING RESIDUAL LABORATORY SAMPLES	4
5.3	RECEIVING SAMPLE SHIPMENTS	6
5.4	DOCUMENT PACKAGE	7
6.0	DOCUMENTATION	8

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By J. B. ...

Date 4/24/92

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT EMD FIELD PROCEDURES SOP	Manual: Procedure No.: Page: Effective Date: Organization:	5-21000-OPS FO.9, Rev. 2 2 of 8 March 1, 1992 Environmental Management
Category 2		

2.0 PURPOSE AND SCOPE

This standard operating procedure (SOP) describes the waste management procedures to be implemented at the Rocky Flats Plant (RFP) for the handling of residual laboratory soil samples, and the documentation necessary to be in compliance with the RFP Waste Management Program. This SOP is intended to be sufficiently detailed so that conformance will result in reliable handling of residual laboratory soil samples.

3.0 RESPONSIBILITIES AND QUALIFICATIONS

3.1 SUBCONTRACTORS

The subcontractor's project manager will be responsible for assigning project staff to implement this SOP and for ensuring that the procedures are followed by all subcontractor personnel.

The assigned onsite sampling manager will have a minimum of a two year college science degree and report to an assigned chemist. The sampling manager will be responsible for all coordination and required documentation as specified in this SOP between the subcontractor, EG&G, and the laboratory.

Personnel using light or heavy equipment, scientific monitoring devices, or operating company vehicles must have appropriate training or licensees.

3.2 LABORATORY

The laboratory will be responsible for contacting the subcontractor that originally submitted the samples prior to shipping any residual lab soil samples. The laboratory will also be required to

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT EMD FIELD PROCEDURES SOP	Manual: Procedure No.: Page: Effective Date: Organization:	5-21000-OPS FO.9, Rev. 2 3 of 8 March 1, 1992 Environmental Management
Category 2		

provide all documentation, as specified in this SOP, to the subcontractor and ship all laboratory residual soil samples in accordance with all applicable DOT regulations.

3.3 EG&G

The EG&G project manager has the overall responsibility for implementing this SOP. EG&G will be responsible for approving all Residual Lab Soil Characterization (RLSC) forms and final disposition of all residual laboratory soils.

4.0 REFERENCES

4.1 SOURCE REFERENCES

The following is a list of references reviewed prior to the writing of this procedure:

A Compendium of Superfund Field Operations Methods. EPA/540/P-87/001. December 1987.

RCRA Facility Investigation Guidance. Interim Final. May 1989.

4.2 INTERNAL REFERENCES

Related SOPs cross-referenced in this SOP are as follows:

- SOP 1.10, Receiving, Labeling, and Handling Waste Containers
- SOP 1.12, Decontamination Facility Operations

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT EMD FIELD PROCEDURES SOP	Manual: Procedure No.: Page: Effective Date: Organization:	5-21000-OPS FO.9, Rev. 2 4 of 8 March 1, 1992 Environmental Management
----------------------------------------------------------------	-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

Category 2

5.0 PROCEDURE FOR THE HANDLING OF RESIDUAL SAMPLES

Residual laboratory soil samples consist of excess soils collected at RFP, that were not used by the chemical laboratory for analyses and are being returned to RFP.

The following procedures are guidelines to be followed by the subcontractor for the proper chemical characterization, transport, storage, and containment of residual laboratory soils being returned to RFP by EG&G's contracted chemical laboratories.

5.1 RECEIVING RESIDUAL LABORATORY SAMPLES

Chemical laboratories requesting to return residual soil samples will first contact the subcontractor that originally submitted the soil samples to the laboratory. The subcontractor will require all documentation specified in this SOP. The laboratory will provide the subcontractor with the following notification of shipment:

- Sample identification list of residual soils to be returned to RFP
- Method of shipment (i.e., courier)
- Expected date and time of delivery
- Number of shipping containers
- Total number of individual sample containers

5.2 CHARACTERIZING RESIDUAL LABORATORY SAMPLES

Once the subcontractor receives all required information from the laboratory, the subcontractor will access the Rocky Flats Data Management System (RFDMS) for the validated chemical results of the associated soil sample. The subcontractor will categorize each soil as radioactive, hazardous

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT EMD FIELD PROCEDURES SOP	Manual: Procedure No.: Page: Effective Date: Organization:	5-21000-OPS FO.9, Rev. 2 5 of 8 March 1, 1992 Environmental Management
----------------------------------------------------------------	-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

Category 2

(nonradioactive RCRA-regulated hazardous substances), or non-hazardous based upon the chemical results. The chemical categorization will be performed by the subcontractor's assigned sample manager and chemist. All chemical categorizations performed by subcontracting personnel will be based on validated chemical results of the associated soil sample obtained during field sampling activities.

Following the subcontractor's chemical categorization of each residual soil sample to be returned to EG&G, the subcontractor will complete a Residual Lab Soil Characterization (RLSC) Form (Form 1.9A). This form will identify the name of the subcontractor, the chemical laboratory requesting the return shipment, the date of request, and the RLSC identification (I.D.) number (sample I.D.). Included on this form will be the subcontractor's chemical categorization of each soil sample which will be identified as follows:

- Uncontaminated
- Low-level radioactivity contaminated (RAD)
- Nonradioactive RCRA-regulated hazardous (hazardous)
- Mixed (RAD and hazardous)

The subcontractor will also cross-reference the original Chain-of-Custody (COC) number to the residual soil sample and record that COC number on the spaces provided on the RLSC Form.

The RLSC form(s) and associated chemical results will be submitted to EG&G for final characterization and approval of acceptance of the residual laboratory soil samples. Following EG&G's waste characterization and approval, the RLSC Form and associated chemical analyses will be returned to the subcontractor. The subcontractor will authorize the chemical laboratory to proceed with the return shipment of the designated residual laboratory soils to RFP.

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT	Manual:	5-21000-OPS
EMD FIELD PROCEDURES SOP	Procedure No.:	FO.9, Rev. 2
	Page:	6 of 8
	Effective Date:	March 1, 1992
Category 2	Organization:	Environmental Management

5.3 RECEIVING SAMPLE SHIPMENTS

The laboratory will address the residual laboratory soils to the subcontractor at RFP. The samples will be shipped in accordance with all applicable Department of Transportation (DOT) shipping regulations. The laboratory will also provide duplicate copies of the associated COC form(s) pertaining the residual laboratory soils. The duplicate copies of the COC forms are to be securely placed on the outside of the shipping container(s) and well protected from the weather.

When the designated residual soil samples are received by EG&G's Shipping and Receiving Department, the subcontractor will be notified of the shipment. The subcontractor will transport the unopened sample container(s) (coolers or packages) to the main decontamination facility. At the main decontamination facility, the subcontractor will open the sample cooler(s) in accordance with the Environmental Restoration's Project Health and Safety Plan. The subcontractor will inspect the contents in each sample container, assess damage, and ensure that all individual sample containers are listed on the accompanied COC form.

Samples identified on the COC by the subcontractor that cannot be accounted for will be lined-out, dated, and initialed on both COC copies. This discrepancy will be documented on the COC forms and the laboratory will be notified.

If containers are inventoried by the subcontractor during inspection and are not listed on the COC forms, the subcontractor will separate the non-listed sample container(s) and contact the laboratory and EG&G for further guidance.

If a sample container is found to be broken, the sample manager will check the EG&G characterization of the contents of the container. If the contents are characterized as uncontaminated, the sample will be left in the shipment container. If the soils within the broken

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT	Manual:	5-21000-OPS
EMD FIELD PROCEDURES SOP	Procedure No.:	FO.9, Rev. 2
	Page:	7 of 8
	Effective Date:	March 1, 1992
Category 2	Organization:	Environmental Management

sample container are characterized as RAD, hazardous, or mixed, the sample manager will contact the EG&G project manager for further guidance.

If the sample containers are undamaged, the subcontractor will segregate each sample container based on the EG&G characterization of the sample. Sample containers having the same characterization will be repackaged together. Each new package will be labeled according to the characterization of samples. Packages containing samples characterized as RAD will be labeled with a "White I" radioactive label. Packages containing samples characterized as hazardous or mixed will be labeled with a Department of Transportation (DOT) "Other Regulated Materials Class E" (ORM-E) sticker. Additionally, packages containing mixed residual samples will be marked with the word "RAD." (See SOP 1.10, Receiving, Labeling, and Handling Waste Containers for details pertaining to the proper handling of waste containers.)

The subcontractor will then place the repackaged samples at the drum transfer area at the main decontamination facility (see SOP 1.12, Decontamination Facility Operations). The subcontractor will have EG&G's Waste Operations personnel sign both copies of the COC forms. Custody of the residual soil samples is now considered officially transferred to EG&G.

The subcontractor will relinquish one copy of the COC form(s) to EG&G's Waste Operations personnel. The subcontractor will retain the duplicate COC form(s) to complete the subcontractor's document package that will ensure that residual soils were appropriately handled and returned to RFP.

5.4 DOCUMENT PACKAGE

The subcontractors's document package for residual laboratory samples returned to EG&G's custody will contain the following information for each shipment:

HANDLING OF RESIDUAL SAMPLES

EG&G ROCKY FLATS PLANT	Manual:	5-21000-OPS
EMD FIELD PROCEDURES SOP	Procedure No.:	FO.9, Rev. 2
	Page:	8 of 8
	Effective Date:	March 1, 1992
Category 2	Organization:	Environmental Management

- An EG&G signed copy of the COC form(s)
- A copy of the completed RLSC form(s) and associated chemical analyses
- Laboratory notification of shipment

These document packages are to be filed in the subcontractor's project QA files and kept until requested by EG&G for permanent storage.

6.0 DOCUMENTATION

Information requested by this SOP will be documented on the RLSC (Form FO.9A) form(s) and the COC(s).

RESIDUAL LAB SOIL CHARACTERIZATION FORM (RLSC)

ATTACH CHEMICAL RESULTS OF ASSOCIATED SAMPLES

THIS PORTION WILL BE COMPLETED BY THE SUBCONTRACTOR AND APPROVED BY EG&G

Name of Subcontractor

Name of Chemical Laboratory

Date of Request

Are Associated Chemical Results Attached? (Y/N)

Subcontractor's Signature

Date

Comments:

EG&G Project Manager

Residual Lab Soil Characterization

Table with 3 columns: Sample I.D., Original COC #, Characterization. Multiple rows for data entry.

Comments:

EG&G Approval Signature

Date