

**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)

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FO.04	Heavy Equipment Decontamination	2	05/12/92
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DCN 92.02	Clarification of Center Bit Decontamination	1	03/12/92
FO.05	Handling of Purge and Development Water	2	05/12/92
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FO.09	Handling of Residual Samples	2	05/12/92
FO.10	Receiving, Labeling, and Handling Environmental Materials Containers	2	05/12/92

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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
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FO.18	Environmental Sample Radioactivity Content Screening	2	05/12/92
FO.19	Base Laboratory Work	2	05/12/92

REVIEWED FOR CLASSIFICATION/UCM  
By J. H. [Signature]  
Date May 20, 1992

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**CONTROLLED DOCUMENT**

EG&G - ROCKY FLATS PLANT  
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**BASE LABORATORY WORK**

**EG&G ROCKY FLATS PLANT  
EMD MANUAL OPERATION SOP**

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**5-21000-OPS  
FO.19, Rev. 2  
1 of 6  
March 1, 1992  
Environmental Management**

**Category 2**

**TITLE:  
BASE LABORATORY WORK**

**Approved By:**  
*[Signature]*  
**(Name of Approver)**

**5/12/92**  
**(Date)**

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By *[Signature]*  
Date *May 15, 1992*

## BASE LABORATORY WORK

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### 2.0 PURPOSE AND SCOPE

The purpose of this standard operating procedure (SOP) is to define procedures routinely performed at a base laboratory at the Rocky Flats Plant (RFP). The goal of the base laboratory is to obtain and document data in order to meet acceptable standards of accuracy, precision, comparability, representativeness, and completeness. This document is intended to provide details so that all personnel perform base lab tasks consistently.

The base lab is to be located in an area designated by the EG&G project manager. This facility will be utilized by the contracting party for activities described, but not limited to those listed as follows:

- As a staging area for personnel sampling activities
- As a storage and preparation area for sample containers and to compile sample sets
- As a receiving, preparation, and shipping area for samples collected in the field
- For equipment calibration and secure storage

### 3.0 RESPONSIBILITIES AND QUALIFICATIONS

Only qualified personnel will be allowed to perform these procedures. Required qualifications vary depending on the activity to be performed. In general, qualifications are based on education, previous experience, on-the-job training, and supervision by qualified personnel. Personnel will be geologists, chemists, hydrologists, environmental scientists, engineers, or field technicians with an appropriate amount of applicable experience or on-the-job training under supervision of another qualified person.

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### 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.

Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA. Interim Final. October 1988.

RCRA Facility Investigation Guidance. Interim Final. May 1989.

Standard Methods for the Examination of Water and Wastewater. 17th Edition. 1989, et. seq. APHA-AWWA-WPCF.

#### 4.2 INTERNAL REFERENCES

Related SOPs cross-referenced by this SOP are:

- SOP FO.6, Handling of Personal Protective Equipment
- SOP FO.7, Handling of Decontamination Water and Wash Water
- SOP FO.10, Receiving, Labeling, and Handling Environmental Materials Containers
- SOP FO.13, Containerizing, Preserving, Handling, and Shipping of Soil and Water Samples
- SOP FO.14, Field Data Management

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- SOP SW.2, Field Measurement of Surface Water Field Parameters

### 5.0 METHODS

Base lab procedures will be performed as described in the following subsections. The order in which tasks are performed may vary depending on time requirements or other day-to-day events.

#### 5.1 PRE-FIELD ACTIVITIES

Provisions will be made at the base lab for an area where personnel may change from their street clothes into field clothing appropriate to the season. No personal protective equipment (PPE), clean or otherwise, will be worn in these areas.

Equipment used for field measurement of field parameters will be calibrated and/or standardized before use by designated personnel in accordance with applicable SOPs. An area of the base lab facilities will be dedicated for this purpose.

Coolers or other containers for transporting sample containers, pre-labeled and identified by the sample manager, will be assembled for use by field personnel. Coolers or other containers will be stocked with the sample containers needed for the day's sampling activities. The sample manager will ensure that preservatives are provided for those samples requiring preservation. Glass containers will be placed into the coolers or other containers in such a manner as to prevent breakage while being transported to and from the sampling site(s).

Field crews will be responsible for the inventory of sampling supplies and equipment in the field vehicles and ensuring that necessary items are on hand to complete the day's

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activities prior to leaving the base lab. They will report the status of quantities of supplies in storage at the base lab to the site manager and/or equipment manager in time to reorder and receive items before the stock is depleted.

Each field team leader will ensure that field folders pertaining to the day's activities are obtained from the base lab office files and, if necessary, that security personnel or other concerned personnel are notified of the day's intended activities.

### 5.2 BASE LABORATORY ACTIVITIES

The site manager will assign personnel responsible for proper pre-use calibration and post-use standardization practices. An adequate supply of all standards and solutions will be maintained and records of calibration/standardization activities will be filed in a secured area at the base lab office.

The sample manager will interface with the contracted chemical laboratories and provide control of sample containers, field samples, and related activities in accordance with SOP FO.13, Containerizing, Preserving, Handling, and Shipping of Soil and Water Samples.

The sample manager will utilize available time while teams are in the field to prepare solutions and supplies for the following day's activities.

### 5.3 POST-FIELD ACTIVITIES

Crews returning to the base lab from field sampling activities will deliver radiation screening samples to the on-site laboratory or sample manager.

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Contact with the sample manager will be made immediately upon arrival at the base lab, and samples transferred to his/her custody. One member of the delivering field crew will assist the sample manager in preparing the samples for storage and/or shipment.

A designated person will perform post-use instrument calibration/standardization procedures according to applicable SOPs. Instruments will be stored in a locked room when field or base lab personnel are not present.

Data forms not completed in the field will be completed after each day's activities. Forms will be completed in accordance with SOP FO.14, Field Data Management.

Field personnel will remove refuse from the vehicles and properly dispose of it in accordance with SOP FO.6, Handling of Personal Protective Equipment; SOP FO.7, Handling of Decontamination Water and Wash Water; and SOP FO.10, Receiving, Labeling, and Handling Environmental Materials Containers.

The base lab facilities will remain locked when project personnel are not present. The last person out is responsible for ensuring that all accesses to the facility are properly secured (that is, locked) before leaving at the end of the workday.