

ROCKY FLATS PLANT  
EMD OPERATING  
PROCEDURES MANUAL

Manual No.: 5-21000-OPS-FO  
Procedure No.: Table of Contents, Rev 4  
Page: 1 of 2  
Effective Date: 11/01/91  
Organization: Environmental Management

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

CONTROLLED DOCUMENT  
ENVIRONMENTAL MANAGEMENT DEPARTMENT

THIS IS A  
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)

This is a RED Stamp

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FOR VOLUME I: FIELD OPERATIONS

<u>New Proc. No.</u>	<u>Old Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
FO.01	1.1	Air Monitoring and Dust Control	1	8/30/91
FO.02	1.2	Transmittal of Field QA Records	2	9/23/91
FO.03	1.3	General Equipment Decontamination	1	8/30/91
DCN 91.01		Replace triple rinse with double rinse	1	10/29/91
FO.04	1.4	Heavy Equipment Decontamination	1	8/30/91
FO.05	1.5	Handling of Purge and Development Water	1	8/30/91
DCN 91.01		Clarified protected area	1	10/28/91
FO.06	1.6	Handling of Personal Protective Equipment	1	8/30/91
DCN 91.01		Approved practices for disposal of surface water monitoring PPE.	1	9/19/91
DCN 91.02		Clarified protected area	1	10/28/91
FO.07	1.7	Handling of Decontamination Water and Wash Water	1	8/30/91
DCN 91.01		Grout mixing equipment wash water	1	10/22/91

ADMIN RECORD

REVIEWED FOR CLASSIFICATION

By [Signature]  
Date 11/21/91

A-SW-000174

**ROCKY FLATS PLANT  
EMD OPERATING  
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<u>New Proc. No.</u>	<u>Old Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
DCN 91.02		Clarify work area characteristics	1	10/28/91
FO.08	1.8	Handling of Drilling Fluids and Cuttings	1	8/30/91
DCN 91.01		Delete locking requirement from drum sealing	1	8/30/91
DCN 91.02		Clarified protected area	1	10/28/91
DCN 91.03		Clarifying spraying requirements	1	10/29/91
FO.09	1.9	Handling of Residual Samples	1	8/30/91
FO.10	1.10	Receiving, Labeling, and Handling Environmental Materials Containers	1	8/30/91
DCN 91.01		Delete use of indelible markers	1	9/26/91
DCN 91.02		Clarify environmental liquids generated	1	10/28/91
FO.11	1.11	Field Communications	1	8/30/91
FO.12	1.12	Decontamination Facility Operations	1	8/30/91
FO.13	1.13	Containerization, Preserving, Handling and Shipping of Soil and Water Samples	1	8/30/91
FO.14	1.14	Field Data Management	1	8/30/91
FO.15	1.15	Photoionization Detectors (PIDs) and Flame Ionization Detectors (FIDs)	1	8/30/91
FO.16	1.16	Field Radiological Measurements	1	8/30/91
FO.17	1.17	Determining Out-Of-Specification Analytical Results for Environmental Samples		To Be Added
FO.18	1.18	Environmental Sample Radioactivity Content Screening	1	8/30/91
FO.19	1.19	Base Laboratory Work	1	8/30/91

# ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

This is a  
**CONTROLLED DOCUMENT**

Procedure Number 5-21000-OPS-FO.3, Rev. 1

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FORM - PROCEDURE UNIT

Title <b>General Equipment Decontamination</b>	Date <b>10-28-91</b>	DCN Number <b>5-21000-OPS-FO.3</b> <i>91-01</i>
Expires <u>1-30-91</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>none</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	9 of 18	5.3.1 step 4.	Replace triple rinse with double rinse.

**Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)**

Industry standard is to use a total of three rinses instead of four as per this SOP.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>Lacy Mung</i>	QAPM	X	10/29/91	<i>A.L. Puma</i>	User	X	10/28/91
				<i>C.B. Gee</i>	"	"	10/28/91
				<i>M.C. Boshes</i>	QAC		10/28/91
				<i>SLW</i>			10/29/91

Approval of Responsible Manager <i>[Signature]</i>	Date <i>10/28/91</i>	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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# ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

Procedure Number 5-21000-OPS-FO.8, Rev. 1

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Title <b>Handling of Drilling Fluids and Cuttings</b>	Date <b>10-28-91</b>	DCN Number <b>5-21000-OPS-FO.8</b> <i>91-2203</i>
Expires <u>1-30-91</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>none</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	8 of 12	6.2 paragraph 1	Replace the second sentence with: "If significant dust is generated during drilling operations, cuttings will be wetted with distilled water from a hand-pressurized sprayer and placed on the ground. Cuttings that are moist need not be sprayed."

Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)

Drilling operations as RFP generally have been producing moist cuttings where dust has not been a problem.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>Larry M. King</i>	QAPM	X	<i>10/29/91</i>	<i>D L Pomeroy</i>	User	X	<i>10/29/91</i>
				<i>C. B. Glee</i>	"	"	<i>10/29/91</i>
				<i>ELW</i>			<i>10/29/91</i>

Approval of Responsible Manager <i>J. W. Lamm</i>	Date <i>10/28/91</i>	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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ROCKY FLATS PLANT  
EMD OPERATING  
PROCEDURES MANUAL

Manual No.: 5-21000-OPS-GT  
Procedure No.: Table of Contents, Rev 4  
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Organization: Environmental Management

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

VOLUME I: FIELD OPERATIONS (FO)

VOLUME II: GROUNDWATER (GW)

This is a VOLUME III: GEOTECHNICAL (GT)

CONTROLLED DOCUMENT  
VOLUME IV: SURFACE WATER (SW)

VOLUME V: ECOLOGY (EE)

EC&G — ROCKY FLATS ENVIRONMENTAL  
VOLUME VI: AIR (AP)

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FOR VOLUME III: GEOTECHNICAL

<u>New Proc. No.</u>	<u>Old Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective : Date</u>
GT.01	3.1	Logging Alluvial and Bedrock Material	1	8/30/91
GT.02	3.2	Drilling and Sampling Using Hollow Stem Auger Techniques	1	8/30/91
DCN 91.01		Unconsolidated core samples need not be peeled before sampling	1	10/29/91
GT.03	3.3	Isolating Bedrock From the Alluvium with Grouted Surface Casing	1	8/30/91
DCN 91.01		Change in criteria for cement grouting	1	10/02/91
DCN 91.02		Grout procedure clarification	1	10/28/91
GT.04	3.4	Rotary Drilling and Rock Coring	1	8/30/91
DCN 91.01		Core barrel decontamination	1	10/22/91
DCN 91.02		Clarification of measuring tape decontamination requirements	1	10/29/91
GT.05	3.5	Plugging and Abandonment of Boreholes	1	8/30/91
DCN 91.01		Surface casing classification	1	10/22/91

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**5-21000-OPS-GT  
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Environmental Management**

<u>New Proc. No.</u>	<u>Old Proc. No.</u>	<u>Title</u>	<u>Rev. No.</u>	<u>Effective Date</u>
GT.06	3.6	Monitoring Wells and Piezometer Installation	1	8/30/91
DCN 91.01		Industry Standard is 1 foot into Bedrock	1	10/15/91
DCN 91.02		For the Sitewide Program, Claystone Smearing does not seem to be a problem	1	10/15/91
GT.07	3.7	Logging and Sampling of Test Pits and Trenches	1	8/30/91
GT.08	3.8	Surface Soil Sampling	1	8/30/91
GT.09	3.9	Soil Gas Sampling and Field Analysis	1	8/30/91
GT.10	3.10	Borehole Clearing	1	8/30/91
GT.11	3.11	Plugging and Abandonment of Wells	1	8/30/91
GT.15	3.15	Geophysical Borehole Logging	1	8/30/91
DCN 91.01		No Hole will be left Unlogged at the end of the day	1	10/15/91
GT.17	3.17	Land Surveying	1	8/30/91
GT.18	3.18	Surface Geophysical Surveys	1	8/30/91
GT.19	3.19	Field Gas Chromatographs	1	8/30/91
GT.20	3.20	Procedures for Soil Interstitial Water Sampling and Sampler Installation	1	8/30/91

# ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

This is a  
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EG&G - ROCKY MOUNTAIN  
ENVIRONMENTAL

Title <b>Rotary Drilling and Rock Coring</b>	Date <b>10-28-91</b>	DCN Number <b>5-21000-OPS-GT.4 91-02</b>
Expires <u>1-30-91</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>Sitewide Geologic</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	8 of 10	6.0 paragraph 1	Add the following to the end of the paragraph: "When coring bedrock using water as a circulating medium, no decontamination of measuring tapes is necessary between coring runs. The measuring tapes will be decontaminated after each boring is complete."

**Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)**

The potentially contaminated alluvium has already been isolated from the bedrock. In addition, the borehole is filled with liquid and there is constant communication between the drilling fluid, the exposed borehole and the measuring tape.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>Harry M. Grogan</i>	QAPM	X	10/29/91	<i>DL Pinner</i>	User	X	10/29/91

Approval of Responsible Manager <i>J. W. L. [Signature]</i>	Date <i>10/29/91</i>	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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# ENVIRONMENTAL MANAGEMENT DOCUMENT CHANGE NOTICE (DCN)

Procedure Number 5-21000-OPS-GT.2, Rev. 1

This is a  
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Title <b>Drilling and Sampling Using Hollow-Stem Auger Techniques</b>	Date <b>10-28-91</b>	DCN Number <b>5-21000-OPS-GT.2 91-01</b>
Expires <u>1-30-91</u> Procedure Revision Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Scope Limitation <u>none</u>		

Item Number	Page	Step or Paragraph	Changes (Use DCN CONTINUATION SHEET for Additional Space)
1	9 of 14	5.3.1 paragraph 1	Add to end of first paragraph: "Unconsolidated core samples need not be peeled before sampling."

**Justification (Reason for Change – Provide Numbers To Reference Corresponding Items Above)**

It is not possible to peel unconsolidated samples. It is also not possible to state that any part of an unconsolidated sample was or was not in contact with the sampler at any given time.

Concurrence	Organization	Req	Date	Concurrence	Organization	Req	Date
<i>Larry M. Long</i>	QAPM	X	10/28/91	<i>A. H. Quinn</i>	User	X	10/28/91
				<i>CB Fee</i>			10/29/91

Approval of Responsible Manager <i>J. W. Lawrence</i>	Date <i>10/28/91</i>	Is Posting Req'd? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, By What Date?	Date Posted
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