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JUL 11 1994

22765 R F 94 States Government

Department of Energy  
Rocky Flats Field Office

# Memorandum

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ER NC 07030

Approval to Commence Field Work For Background Soils Characterization Program

Sue Stiger, Associate General Manager  
Environmental Restoration Management  
EG&G Rocky Flats, Inc

On June 13, 1994, the U S Environmental Protection Agency (EPA), Region VIII, transmitted comments on the Draft Background Soils Characterization Program Work Plan

Enclosed please find EPA's comments. The majority of their comments involve issues associated with the appropriate detection limits and the standardization of laboratory methods. These issues need to be resolved before samples are analyzed. The other aspects of the field sampling program are acceptable and therefore, the field work should proceed as soon as possible.

Also, comments provided by the U S Department of Energy/Rocky Flats Field office (DOE/RFFO) must be resolved and incorporated into the Work Plan.

Due to the five week delay in receiving comments from the regulatory agencies, the DOE/RFFO requests that your organization summarize any impacts that may have been associated with the delay such as planned integration, and schedule conflicts.

If you should have any questions related to this matter, please contact Norma I Castaneda at 966-4226.

Jessie Roberson  
Acting Assistant Manager for  
Environmental Restoration

CORRES CONTROL	X	X
ADMIN RECORD/080	X	2
PATS/T130G		

Reviewed for Addressee  
Corres Control RFP

7/14/94 R/100  
DATE BY

Ref Ltr #

DOE ORDER # 5400.1

ADMIN RECORD

SW-SW-A-02991

• S G Stiger  
94-DOE-07030

2

Enclosure

cc w/enclosure

G Konwinski, EG&G

S Jaunajis, EG&G

J Whiting, EG&G

cc w/o enclosure

J Crocco, EM-453 1, HQ

M Guillaume, Aguirre, RFFO

W Busby, EG&G

DOE/RFFO Comments

SUBJECT    Review of the Background Soils Characterization Program Work Plan

This memo transmits my technical review of the Background Soils Characterization Program Workplan (produced by Dames & Moore for EG&G), dated 4/14/94 and received by me on 4/29/94

General Comments

My overall impression is that this workplan (and the included field sampling plan) are suitable for characterizing our background soils. The workplan is logically organized and clearly written. The Background Soil Program has come a very long way in the last year under the direction of Jim Whiting and Sig Jaunarajs and they are to be commended for doing some fine work.

Specific Comments

Figure 2-4 This color geologic map is nice, but it has been reduced to the point where the map legend is unreadable. Drafting readable unit names and symbols on the legend would be helpful.

Figure 3-1 It is assumed that this figure will be color in the final report in order to make the legend readable.

Page 3-13 and Table 3-6 The text says that Table 3-6 contains basic statistics for nuclides in Rock Creek soil samples, but does not reference the source of the statistics or how the 99/99 UTLs were computed. This is significant since the computed tolerance factors in Table 3-6 disagree with those that were spot checked against page 120 of Beyer (ed), 1991, *Standard Probability and Statistics Tables and Formulae*, CRC Press

Comparison of 99/99 tolerance factors	<u>N</u>	<u>Table 3-6</u>	<u>CRC Reference</u>
	15	4.22	4.60
	10	5.07	5.59
	19	3.89	4.23

Table 3-8 What is the value of the metals statistics in Table 3-8 when they are based on data from both background and potentially contaminated OUs (as explained at the bottom of page 3-13)? If you must use the OU data it would be better to present two separate tables of stats so the reader could compare OU and background stats for a given analyte. Since Table 3-9 splits out the background soil stats, why not regenerate table 3-8 to exclude the Rock Creek data and present only soils from the OUs?

Page 3-24 The last bullet says that the RFP and CDH methods of soil sampling produced comparable Pu concentrations. You should provide a reference to this "fact"

# REVIEW COMMENT SHEET

Time Spent on Review \_\_\_\_\_ hrs

Return to \_\_\_\_\_

If questions on content, please call the SME

FAX \_\_\_\_\_ Name \_\_\_\_\_ Ext \_\_\_\_\_ Location \_\_\_\_\_ Name \_\_\_\_\_ Ext \_\_\_\_\_ Page 1 of 1

Please review the attached procedure \_\_\_\_\_ Number \_\_\_\_\_ Rev \_\_\_\_\_ Draft \_\_\_\_\_ Title \_\_\_\_\_  
 Background Soils Characterization Program Work Plan

Comment Due Date \_\_\_\_\_

Internal Review     Parallel Review     Verification     Validation     Revalidation

General (G) comments require resolution but do not require resolution acceptance    Mandatory (M) comments require resolution and resolution acceptance  
 1-A03-PPG-004 provides complete definitions of General and Mandatory comments

TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INIT/DATE
G			<p>The Background Soils Characterization Program Work Plan is an excellent example of how work should be performed at RFP. There has obviously been a considerable amount of work devoted to the undersaturation of the project. The detailed review of previous investigations and the development of DOOs is excellent. Also the Field Sampling Plan and Data and Interpretation and Reporting sections give me confidence that implementation of the project will be as effective as the development of this plan.</p> <p>I suggest that the process Jim Whilling and Sig Juantraja used to generate this work plan should be set as an example for future ER work.</p>		
1 to resolution) need to concur				Resolutions Accepted	
			_____ Initials	_____ Date	

U S DEPARTMENT OF ENERGY  
ROCKY FLATS OFFICE

**RF REVIEW COMMENT RECORD**

Page 1 of 2

2 Document Reviewed (Title, Number, Revision and Date)  
Background Soils Characterization Program  
Work Plan, Rocky Flats Plant, DRAFT,  
April 14, 1994

3  
Sig,  
Ort,  
Loc:

4 Agreement with dispositions

Date \_\_\_\_\_

Reviewer \_\_\_\_\_

Document Preparer \_\_\_\_\_

7 Comments (include suggested changes)

8 Disposition

5 Comment No	6 Comment Type	7 Comments (include suggested changes)	8 Disposition
1	S	Suggest that there be some statement in addition to the criteria shown on 5-7, indicating that prior to sampling, the remote sampling sites will be assessed (eg historical documents, adjacent industrial activities etc ) for possible external influences not typical of the "background" region as a whole Examples Highway 285/hogback roadcut area (and downwind) where there was past uranium mining activity, and around and downwind from the Lyons cement works where plutonium was found in the kiln ash	
2	NON-C	Section 5 4 Since we are dealing with "background" sampling, there should be some field blanks incorporated into the program in order to demonstrate that the deionized water, preservatives, bottles, and non-equipment handling are free from contamination, or that any resultant contamination is accounted for in the data validation and statistical analyses Also, for the remote offsite locations (fallout locations) include a trip blank to account for any contamination due to the offsite travel, etc Although these samples have been waived for much of the sampling, the need to account for discrepancies in the data set(s) which will probably have a high number of nondetects or very low values, as well as the added quality assurance derived from these samples once the data is analyzed statistically is well worth the extra 2 or 3 samples	
3	S	Section 5 3 2, last sentence Reference the authority or permission to dispose of decon water on the ground Also, state the minimum distance from the trench where this dumping will be allowed in order to prevent any cross contamination of the trench	

Comment Type

E-Essential comment (agreement must be documented for other than verbatim incorporation) S-Suggested comment NON-C-Nonconcurrency based upon the following comment

U S DEPARTMENT OF ENERGY  
ROCKY FLATS OFFICE

**RF REVIEW COMMENT RECORD**

2 Document Reviewed (Title, Number, Revision and Date)		3 I	4 Agreement with dispositions	
Background Soils Characterization Program Work Plan, Rocky Flats Plant, DRAFT, April 14, 1994		Sigr Org. Locc	Page <u>2</u> of <u>2</u>	
5 Comment No	6 Comment Type	7 Comments (include suggested changes)		
4	E	Section 6 2 1, bullets Reference the "procedures" for these items as these can't be found in the ER procedures		
5	E	Section 6 2 1 2, para 2, last sentence Add that the discussion of the replacement techniques will be incorporated into the final report		
6	E	Section 6 2 1 4 For any outliers, their identification, disposition, justification of disposition, and statistical impact should be reported somewhere, regardless of whether the data point is excluded This is required under QAPP, Section 15, Control of Nonconformances		
7	E	Section 7 2 1 Attach or specifically reference the training matrix mentioned in this section		
		8 Disposition		
		Date _____ Reviewer _____ Document Preparer _____		

Comment Type  
E-Essential comment (agreement must be documented for other than verbal incorporation) S-Suggested comment NON C-Nonconcurrency based upon the following comment