



John Rampe  
July 15, 1998  
98-RF-03598  
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We concur that characterization techniques identified in these manuals can be applied to our SNM, D&D and Environmental Restoration/Waste Management (ER/WM) Program and are currently preparing the Kaiser-Hill Site/Facility Characterization Manual to implement such techniques through the DQO process.

This Manual will provide guidance regarding key characterization processes and the development of characterization procedures, a set of DQO's and decision rules for various characterization requirements, and the decision process for Types 1, 2 and 3 facilities. Examples of how to apply the DQO process and organizational roles and responsibilities will also be included.

The Kaiser-Hill D&D Projects Organization has lead responsibility for preparing the Manual, and has formed an integrated team with representatives from Safe Sites Of Colorado (SSOC) and Rocky Mountain Remediation Services (RMRS) to support it's development. We intend to submit this Manual for your use by September 1, 1998. In addition, I am including with this letter, our Action Plan for implementing the requirements of the Manual, the outline of the Manual, and our specific response to subject comments.

No response is required; although please feel free to contact me if you have any questions.



Brian W. Mathis  
Division Manager  
D&D Projects  
Kaiser-Hill Company, L.L.C.

RTS:pmm

Attachments:  
As Stated

Orig. and 1 cc - J. J. Rampe

cc:  
William Fitch  
Fred Gerdeman  
Keith Klein  
David Nickless  
Gary Schuetz

**RESPONSE TO COMMENTS REGARDING CHARACTERIZATION AND SURVEYS  
FOR DEACTIVATION AND DECOMMISSIONING PROJECTS DATED JUNE 03, 1998**

The Kaiser-Hill D&D Projects Organization has completed a review of the current sampling, characterization, and survey program at the RFETS. Due to inconsistencies in the number and frequency of sampling and characterizations across the Site, we concur with your comments regarding the need for consistency across our Programs and are preparing the Kaiser-Hill Site/Facility Characterization Manual to provide guidance regarding such characterizations. Our response to your comments reflects the need for such guidance.

**1. COMMENT**

Comprehensive roadmap directing the project team to the requirements for all D&D characterizations and surveys for radiation, hazardous chemicals (including but not limited to polychlorinated biphenyls, beryllium, lead, and asbestos), and physical;

**RESPONSE**

We concur with the comment. The development of the Kaiser-Hill Site/Facility Characterization Manual will provide guidance to the requirements for all D&D characterizations and surveys;

**2. COMMENT**

A comprehensive quality assurance plan for D&D sampling and analysis;

**RESPONSE**

We concur with the comment. A Quality Assurance Plan is included as a section in the Kaiser-Hill Site/Facility Characterization Manual.

**3. COMMENT**

Preparation of consistent characterization and survey documents from project to project;

**RESPONSE**

We concur with the comment. Implementing Procedures/Protocols will be prepared to document and implement the requirements for consistent characterization and survey from project to project.

**4. COMMENT**

Site implementation (as appropriate) of the Multi-Agency Radiation Survey and Site Investigation Manual (MARRSSIM) and the Multi-Agency Radiation Laboratory Protocols (MARLAP) Manual.

**RESPONSE**

We concur with the comment. MARRSIM is the approach we are using for planning, performing, and assessing the characterization and survey requirements for Type 1, 2, and 3 Facilities. This approach is an integral part of our Kaiser-Hill Site/Facility Characterization Manual.

**5. COMMENT**

Application of the DQO process to all D&D projects, and where applicable, to SNM projects;

**RESPONSE**

We concur with the comment. The DQO process, is our approach to defining the process of ensuring that characterization and survey results are of sufficient quality and quantity to support our decommissioning decisions for Type 1,2, and 3 Facilities. The DQO Process is the baseline for defining the characterization and survey requirements in our Kaiser-Hill Site/Facility Characterization Manual.

**6. COMMENT**

Establish background levels or standard methods for determining them;

**RESPONSE**

We concur with the comment. As part of our action plan, development of the Reference Area Background Procedure is planned for first quarter FY99.

**7. COMMENT**

Response to attached comments;

**RESPONSE**

A response matrix and an annotated outline is included which defines the DOE and EPA comments and where, in the Kaiser-Hill Site/Facility Characterization Manual, the comments will be address. Specific comments to each protocol will addressed on a case by case basis and resubmitted per the attached Action Plan.

**8. COMMENT**

The dates by which each of the above elements will be incorporated in approved procedures, as appropriate and fully implemented.;

**RESPONSE**

Our Kaiser-Hill Site/Facility Characterization Manual will be provided to DOE, RFFO September 1, 1998. Specific procedures identified in our Action Plan will be completed and implemented per the action plan.

Comment/Section	Comment Summary	Char. Manual Section
#1 - General	Rewrite document	All Sections & Appendices
#1 - General	Delete NUREG reference; replace with MARSSIM	2.3
#2 - Appendix A-F	Specify quantity of samples	Appendix B
#3 - Appendix G	Address in project-specific documents	2.3.6, 4.1, 5.1.3
#4 - General	Reflect scope in title	2.2, 2.3, Title
#5 - General	State characterization drivers	1.0, 2.2,3.2
#6 - General	Define purpose and implementation of the DQO process	3
#7 - Section 1	Discuss when RLC plan is required	2.2
#8 - Section 1-3	Expand scope of protocols	1.0, 2.2, 2.3
#9 - Section 4	Expand discussion on characterization	2.3, 4.0, 5.0, Appendix B
#10 - Section 4	State decision logic for characterization phases	2.3
#11 - Section 4.5 -2nd Sentence	Edit	4.1, 5.1.3
#12 - Section 5 to End	Edit	3.2
#13 - Section 5.2	List characterization documents for Admin. Record	6
#14 - Section 6	Expand discussion on characterization matrix	3.2, 4.2, 5.2, 6.0
#15 - Table 6-1	Define terms in table	4.2, 5.2, Appendix B
#16 - Section 7	Expand QA section	6
#17 - Section 7.10	Follow DQO process to determine QC sample requirements	3.0, 4.0, 5.0
#18 - Section 8	Add references	7
#19 - Appendices	Reference standards and decision documents	Appendix C
#20 - Appendices	Include discussion on waste characterization and property release	4.1, 5.1
#21 - Appendix B	List metals	4.1, 5.1
#22 - Appendices	Use DQOs and data quality assessment process	4.1, 4.2, 5.1, 5.2
#23 - Appendix E	Edit	4.1.5, 5.1, Appendix C
#24 - Appendix G, Section 2	Cite release criteria	4.1.5, 5.1
#25 - Appendix G, Section 2	Expand discussion	4.1.5, 5.1
#26 - Appendix G, Section 3	Clarify discussion of independent verification	2.3, 4.1, 5.1
#27 - Attachment 1.0	Make into an appendix	Appendix C

## EPA COMMENT RESOLUTION MATRIX

Comment/Section	Comment Summary	Char. Manual Section
Purpose and Scope	Approach needs to be consistent with objectives; need to reference	All Sections & Appendices
Approach and Method	Use latest references	3.0, 4.0, 5.0, Appendix C
Characterization Phases	Need DQOs for the various phases	2.2, 2.3, 3.0
Editorial	Need to edit	All Sections
Section 2.0	Use DQOs	3.2
Section 3.0	Discuss/incorporate data life cycle	3.2, Appendix B
Section 4.0	Discuss MARSSIM scoping characterization	2.3.3
Section 4.1	Discuss safety characterization	2.3
Section 4.2	Discuss scoping characterization	2.3.3
Section 4.3	Discuss reconnaissance level characterization	2.3.4
Section 4.4	Discuss in-process characterization	2.3.5
Section 4.5	Discuss final status survey	2.3.6
Section 4.6	Discuss verification of final status survey	2.3.8
Section 5.0	Expand DQO discussion	2, 3, 4, 5
Section 5 - The Problem	Expand DQO discussion	3, 4, 5
Section 5 - Inputs to the decision	Expand DQO discussion	3, 4, 5
Section 5 - Project Boundaries	Expand DQO discussion	3, 4, 5
Section 5 - Decision Rules and Error Limits	Expand DQO discussion	3, 4, 5
Section 5 - Optimization of Design	Expand DQO discussion	3, 4, 5
Section 5.1	Expand discussion of sampling requirements	2.3, 3.2, 4.1, 5.1
Section 5.2	Expand discussion of documentation requirements	3.2, 4.2, 5.2, 6.0
Section 6.0	Discuss characterization document control	6
Section 7.0	Expand discussion of QA requirements	6
Section 7.10	Expand discussion of QC requirements	6
Section 8.0	Provide more complete reference list	7
Appendix A - G	Expand details on radiological requirements	Appendix C

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## APPENDICES

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GLOSSARY

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**ACTION PLAN FOR SITE / FACILITY CHARACTERIZATION MANUAL**

<b><u>ACTIVITIES AND TASKS</u></b>	<b><u>SCHEDULE</u></b>
<b>KAISER-HILL SITE/FACILITY CHARACTERIZATION MANUAL</b>	
DRAFT ANNOTATED OUTLINE	<b>COMPLETED</b>
FINAL ANNOTATED OUTLINE COMPLETE	<b>COMPLETED</b>
MARSSIM MANUAL REVIEW	<b>10-Jul-98</b>
MARLAP MANUAL REVIEW	<b>TBD</b>
DRAFT MANUAL ISSUED FOR INTERNAL TEAM REVIEW	<b>20-Jul-98</b>
DRAFT MANUAL ISSUED FOR INTERNAL REVIEW-KH, SSOC, RMRS	<b>6-Aug-98</b>
REVISED MANUAL ISSUED TO DOE FOR USE	<b>1-Sep-98</b>
FINAL MANUAL ISSUED BY KH FOR IMPLEMENTATION	<b>15-Sep-98</b>
INITIATE ONSITE BRIEFINGS	<b>5-Oct-98</b>
<b>CHARACTERIZATION PROTOCOLS</b>	
FORMAL RESPONSE TO COMMENTS TO DOE	<b>15-Jul-98</b>
DRAFT PROTOCOLS REVIEWED AND REVISED, AS APPROPRIATE	<b>14-Aug-98</b>
BERYLLIUM CHARACTERIZATION PROTOCOL	
METALS AND LEAD CHARACTERIZATION PROTOCOL	
ASBESTOS CHARACTERIZATION PROTOCOL	
CHEMICAL AND LIQUID CHARACTERIZATION PROTOCOL	
POLYCHLORINATED BIPHENYL CHARACTERIZATION PROTOCOL	
RADIOLOGICAL CHARACTERIZATION PROTOCOL	
FINAL RADIATION SURVEY AND SITE RELEASE PROTOCOL	
ADDITIONAL PROTOCOLS DEFINED (AS APPROPRIATE)	<b>14-Aug-98</b>
REFERENCE AREA BACKGROUND PROTOCOL	
CONCRETE CORE SAMPLING PROTOCOL	
MEDIA TCLP PROTOCOL	
ROOFING MATERIAL SAMPLING PROTOCOL	
SUMP AND TANK SAMPLING PROTOCOL	
ROLL - OFF CONTAINER SOIL SAMPLING PROTOCOL	
GEOPROBE SAMPLING PROTOCOL	
<b>PROGRAM IMPLEMENTATION</b>	
PROGRAMMATIC/ORGANIZATION INTERFACES IDENTIFIED, GUIDANCE ISSUED	<b>15-Sep-98</b>
THE FDMP REVIEWED AND REVISED TO REFLECT THE KAISER-HILL CHARACTERIZATION MANUAL	<b>14-Aug-98</b>