

4D103

ER/WM& DDT



000060593

Source/Driver. (Name & Number from ISP, IAG milestone, Mgmt Action, Corres Control, etc)

Closure # (Outgoing Correspondence Control #, if applicable)

Due Date

Mark Buddy
Originator Name

R S Luker 11/16/95

QA Approval

Alan Parker
Contractor Manager(s)

Steve Hahn
Kaiser-Hill Program Manager(s)

DOCUMENT CLASSIFICATION
RE
CLAS
4 1/25 PER
ON OFFICE

T G Hedahl
Kaiser-Hill Director

Document Subject

TRANSMITTAL OF PROPOSAL TITLED "PLUTONIUM LOADING IN OPERABLE UNIT 3 OFFSITE AREAS" - AMP-165-95

11/15/95

95-RM-ER-0179-KH

Discussion and/or Comments

The enclosed proposal, "Plutonium Loading in Operable Unit 3 Offsite Areas" is submitted in response to the Department of Energy/Rocky Flats Field Office's (DOE/RFFO's) written comments on the Operable Unit 3 Preliminary Draft RCRA (Resource Conservation & Recovery Act) Facility Investigation/Remedial Investigation report and DOE/RFFO's verbal request for additional soil samples to be sent to the Los Alamos National Labs for isotopic fingerprinting. It is estimated that an additional \$144,000 will be required to meet these requests. This estimate is detailed on the enclosed Cost Summary Estimate spreadsheet and reflects labor hours, subcontract costs and all associated burdens.

In addition to the proposal the following documents are enclosed

- Baseline Change Proposal (BCP)
- Estimate Cost Summary spreadsheet
- Operable Unit 3 Offsite Areas Work Package with changes (see redlines)

Rocky Mountain Remediation Services, L L C recommends that this proposal be forwarded to DOE/RFFO for approval and funding authorization

Please contact Mark Buddy at extension 4138 if you have any questions

cc					
M	S	Buddy	-	RMRS	- w/o encl T893A
R	J	Denike	-	RMRS	- w/o encl T893A
S	J	Hahn	-	Kaiser-Hill	- w/o encl T130C
J	E	Law	-	RMRS	- w/o encl T893A
A	M	Parker	-	RMRS	- w/o encl T893B

RMRS Records
ER Project File (2)
22 041 F



ADMIN RECCRD

1/22

DRAFT

November 15, 1995

95-KH-ER-00XXX-DOE

Jessie M Roberson
Assistant Manager
Environmental Restoration
DOE/RFFO

Attn

PLUTONIUM LOADING IN OPERABLE UNIT 3 OFFSITE AREAS – XXX-XXX-95

Action Request approval and funding authorization

The enclosed proposal, "Plutonium Loading in Operable Unit 3 Offsite Areas" is submitted in response to the Department of Energy/Rocky Flats Field Office's (DOE/RFFO's) written comments on the Operable Unit 3 Preliminary Draft RCRA (Resource Conservation & Recovery Act) Facility Investigation/Remedial Investigation report and DOE/RFFO's verbal request for additional soil samples to be sent to the Los Alamos National Labs for isotopic fingerprinting. It is estimated that an additional \$144,000 will be required to meet these requests. This estimate is detailed on the enclosed Cost Summary Estimate spreadsheet and reflects labor hours, subcontract costs and all associated burdens.

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Kaiser-Hill, L L C recommends that this proposal be considered for approval and funding authorization

Please contact _____ at extension _____ if you have any questions

Tim G Hedahl
Director, ER/WM&I Operations

MSB bli

Enclosures
As Stated

Plutonium Loading in Operable Unit 3 Offsite Areas

Proposal Submitted in Support of the Operable Unit 3 Remedial Investigation

To

Kaiser-Hill/ Rocky Flats Environmental Technology Site

By

Rocky Mountain Remediation Services L L C
Rocky Flats Technology Site

November 10, 1995

Introduction

DOE comments on the Preliminary Draft RFI/RI report for OU 3 requested that a Pu inventory and an interpretation of the results of the Los Alamos Isotope Study be included as part of the RFI/RI report, or issued as a separate report. Additionally, DOE has requested that OU 3 surficial soil samples not originally sent to the Los Alamos National Laboratory for isotopic ratio studies be sent so that their results may be incorporated with the original data set. This proposal covers the level of effort and anticipated expenses associated with sending the remaining samples to Los Alamos National Laboratory, interpreting the results, and providing an estimate of the Pu inventory in the offsite soils.

Statement of Problems

The purpose of the Los Alamos study was to provide information regarding the impact of RFETS on the surrounding area. The study sought to characterize the Pu^{240}/Pu^{239} ratio for global fallout in the vicinity of RFETS, and characterize the Pu^{240}/Pu^{239} ratio for RFETS produced plutonium. To date, results of the Isotope study have been inconclusive. While isotopic fingerprinting of RFETS and global fallout plutonium has been accomplished in the Los Alamos study, the relationship to spatial distribution, and nature and extent of contamination is not as clear as hoped when the study was initiated. The final utility of the study is to provide data sufficient to estimate the amount of RFETS produced plutonium in the soils surrounding the site. These results have implications regarding nature and extent of contamination in OU 3, and may provide the basis for liability reduction in the event of future litigation.

Proposed Work

To complete the Pu isotope ratio analysis, RMRS proposes to identify which samples have not been previously sent to Los Alamos. This will be accomplished by checking the chain of custody forms against the sample results returned from Los Alamos. An RFEDS query will also be performed to cross check laboratory sample numbers against OU 3 RI sample plot numbers to determine the spatial distribution of results received to date.

Once it is determined which samples are to be sent to Los Alamos, they will be located in the soil sample storage conex and removed for shipping. These samples are in a processed condition as returned from the laboratories after initial analysis. They are fractionated as muffled, sieved, and material retained on the sieve. The material that will be sent to Los Alamos will be the sieved portion of the material. There does not appear to be any unprocessed material available for additional analysis. The sieved fraction will allow Los Alamos to complete sample processing as required for their analysis.

Upon receipt of the complete analysis from Los Alamos, the results will be used to determine the spatial extent of Rocky Flats related plutonium. A Pu^{240}/Pu^{239} ratio of 0.169 represents global fallout in Colorado, whereas a Pu^{240}/Pu^{239} ratio of 0.065 represents weapons grade plutonium manufactured at Rocky Flats. Ratios that fall between these two extremes represent some mixture of global fallout and Rocky Flats plutonium. The spatial continuity of Pu^{240}/Pu^{239} ratios within the soils east and southeast of Rocky Flats will be determined using variography techniques. The spatial extent of Pu^{240}/Pu^{239} ratios will be determined using stochastic simulation methodologies. Simulation differs from the kriging algorithms used in the OU 3

nature and extent evaluation in two fundamental aspects

- Kriging algorithms provide a "best" local estimate of $Pu^*(u)$ of each unsampled value at location (u) taken one at a time without specific attention to the resulting spatial statistics. In simulation, the resulting global features and statistics of the simulated values are the major goal of the analysis. For the purpose of this study, the reproduction of these spatial features is considered more important than local accuracy.
- For a given set of conditional cumulative distribution functions (ccdf) of $Pu^{240+239}$ over a given area, kriging used as an interpolation algorithm produces a single numerical model. This model is "best" for local accuracy purposes. Simulation provides many alternative models each of which is a good representation of reality in a global sense. The differences among these alternative models, also known as realizations, provide a measure of joint spatial uncertainty. The quantification of this uncertainty is the main motive for using stochastic simulation in assessing the spatial extent of Pu^{240}/Pu^{239} ratios within the soils of OU 3.

The most straightforward algorithm for generating realizations of Pu^{240}/Pu^{239} ratios is a sequential Gaussian simulation (sGs). In brief, each ratio is simulated sequentially following its ccdf using a simple kriging (SK) system of equations. The conditioning data consists of all original data and all previously simulated values found within a neighborhood of the location being simulated. The simulation will proceed as follows:

- Using the cdf for Pu^{240}/Pu^{239} ratio, the normal score transform of Pu data will be transformed to Y data with a standard normal cdf,
- The bivariate normality of the normal score y -data will be assessed. If the multivariate Gaussian model can not be retained, alternative models such as indicator based algorithms will be considered.
- If a multivariate Gaussian model can be adapted, the sGs will be executed.

The steps involved in sGs are as follows:

- A random path that visits each node is defined. At each node (u) a specified number of neighboring conditioning data including both original y -data and previously simulated grid node y -values are defined,
- SK system of equations is employed coupled with the normal score variogram model to compute the mean and the variance of the ccdf of the Pu^{240}/Pu^{239} ratio at location (u),
- A simulated value $Pu^{(1)}(u)$ will be generated from that ccdf,
- That simulated value is added to the data set,
- The next node will be visited until all nodes are simulated,
- The simulated normal values will be back transformed for the original variable. During post processing analysis, interpolation of within-class and extrapolation of the lower

and upper tails will be performed

The results of the above simulations will be converted into an uncertainty map of the $\text{Pu}^{240}/\text{Pu}^{239}$ ratio in OU 3. This uncertainty map will provide the most definitive answer regarding the extent of Rocky Flats plutonium in the soils of OU 3.

The overall loading (inventory) of Pu in OU 3 will be computed using the above discussed map and the 11 soil pits excavated in OU 3. These pits provide the vertical distribution of $\text{Pu}^{239+240}$ with depth. Additional information regarding Pu distribution with depth will be gleaned from the study conducted by Webb et al (1994).

The results of these studies will be compiled in a detailed report submitted to Kaiser-Hill and DOE. Past experience indicates that presentation of these results to the regulatory agencies and the public may be useful in generating public support of these findings.

Project Schedule

Samples will be sent to Los Alamos within 1 week of approval of proposal and BCP.

Spatial analysis and Pu loading study will be completed within 4 months of receiving the sample results from Los Alamos.

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References Cited

Webb, S B , J M Stone, S A Ibrahim, and F W Whicker, 1994, The spatial distribution of Plutonium in soil near the Rocky Flats Plant, Preliminary Draft, November 21, 1994, Colorado State University, Department of Radiological Health Sciences, Fort Collins, Colorado



Baseline Change Proposal (BCP)
WORK PACKAGE (WP) DETAIL

BCP No _____
CRP Yes No

1 BCP Title OU Plutonium Loading Proposal
Cost Acct Mgr S Hahn Ext/Bldg T130C-9888 Date _____
K-H PP&C Rep M McElroy Ext/Bldg T130F-2033 Date _____

2 Baseline Impact(s) *Change(s) to the Work Package (WP) Section(s)*

CAD-WP ID	Work Package Title	WP Mgr Name/Init	Circle WP Section(s) Changed
DFA - 12331	OU 3 Offsite Areas Closeout	Law, J <i>[Signature]</i>	3, 5, 6, 7, 8
			3, 5, 6, 7, 8
			3, 5, 6, 7, 8
			3, 5, 6, 7, 8

3 Funding Baseline Impact(s) \$=000 *Include changes to Contractor Encumbrances and/or K-H Unallocated Reserves*

WP ID	Rev 0 Baseline	Current Baseline	BCP Change	Proposed Baseline	ADS Number	B&R Code
DFA-12331	510,000	510,000	143,541	653,541	1011	EW2010301
?	?		-143,154	-143,154	?	?

4 Description of Change(s) *Provide a summary explanation of the change(s) to each WP Section listed in Block 2 Attach the revised WP Section(s) and continuation page(s), if necessary, for Block 4*

Scope The scope of this proposal will complete the Pu isotope ratio analysis as requested by RFFO in their comments to the preliminary draft RFI/RI report. Activities will include the identification of samples that have not been forwarded to LANL. This will be accomplished through the comparison of the chain of custody forms vs sample result forms previously received from LANL. A query of RFETS will then be initiated to cross check laboratory sample numbers against OU 3 RI sample plot numbers. Upon completion of the records search a sample search will be initiated and all located soil samples will be shipped to LANL for analysis. Upon receipt of all sample results RMRS will determine spatial extent of Rocky Flats related plutonium. The results of this evaluation will be converted into an uncertainty map detailing the probability of RFP Pu vs Fallout Pu at a given location. Additionally, a Pu inventory will be prepared from these results the results of vertical sampling profiles. Results of these studies will be compiled in a detailed report submitted to K-H and DOE and included into the Final RFI/RI report. (Refer to attach proposal)

Milestones No CAD Milestones will be added

5 Justification of Change and Impact if Not Approved

If this change is not approved the RFFO comments to the preliminary draft RFI/RI Report will not be properly addressed

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Baseline Proposal (BCP)
WORK PACKAGE (WP) DETAIL

BCP No _____

4 Description of Changes (cont) *Provide a summary explanation of change(s) to each WP Section listed in Block 2 Attached the revised WP Section(s) and continuation page(s) if necessary for Block 4*

Performance Measures - No impact on performance measures

Cost	Determination of sample requirements	\$4,509
	Subcontract support for sample search/location, shipping preparation and sample shipping	\$740
	Subcontract Spatial Analysis and Pu Loading & Consultant Services on Spatial analysis & Pu in soil issues	\$125,980
	GIS support for development and printing of maps and plots	\$7,642
	Admin/Technical Management costs	<u>\$4,670</u>
	Total Requested Funding	\$143,541

**For a complete description, see the attached
"Plutonium Loading in Operable Unit 3 Offsite Areas -
Proposal Submitted in Support of the Operational
Unit 3 Remedial Investigation"**

Notes

- 1) All costs estimates have been adjusted to include all RFP burdens as calculated on the QWP_Rv6p XLs spreadsheet
- 2) Currently all Environmental Institute contracts carry a support burden There is the potential that this burden may be removed resulting in an approximate 38% reduction in the Environmental Institute costs

R 0 10/1/96

Work Package Number 12331 FY96
 Work Package Title OU 3 PLUTONIUM LOADING PROPOSAL

Subtask #	Description	AS CO #	AS CO %	AS CO	ASH	205		3145		A5C		A5J		A5K		A5L		A5M		A5N		A5O		TOTAL BURDENED \$		
						Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate		Hours	Rate
	Cost Center					205	3145																			
	Labor Rate					\$22.40	\$24.90																			
	Labor Fringe & Burden					\$54.02	\$57.51																			
	Burdened Lab					\$76.42	\$82.41																			
	TTI Hours					205																				
	TTI Bur'd \$					143,538																				
	Subtask #	Description	AS CO #	AS CO %	AS CO	ASH	Drillers	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate			
		CHAIN OF CUSTODY INVEST.	R	10.00%				37																	2,827	
		PHYSICAL PREP	R	10.00%				18																	1,378	
		LIBRARY	R	10.00%				4																	308	
		SOIL SAMPLE SEARCH	R	10.00%				128																	244	
		SOIL SAMPLE SHIPPING PREP	R	10.00%				160																	305	
		SOIL SAMPLE SHIPPING COSTS	R	10.00%				100																	191	
		SPATIAL ANALYSIS AND FOLLOWING	R	10.00%																						
		ANALYZE RESULTS	R	10.00%				47,219																	90,098	
		PUBLIC PRESENTATION SUPPORT	R	10.00%				11,805																	22,525	
		COMPUTER LEASE	R	10.00%				6,400																	12,212	
		MISC SUPPLIES	R	10.00%				100																	191	
		TRAVEL	R	10.00%				500																	954	
		GIS SUPPORT	R	10.00%				100																	7,642	
		NONTECH SUPPORT	R	10.00%																						
		PROJECT MANAGEMENT	R	10.00%				18																	1,223	
		ISOPREP	R	10.00%				14																	2,224	
		PROJECT SUPPORT	R	10.00%				18																	1,223	
		Total						56,412																	143,538	

Subtask #	Description	AS CO #	AS CO %	AS CO	ASH	Drillers	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Hours	Rate	Total Burdened \$	
	Labor						4,592	349	0																0	
	Labor Fringe & Burden						11,074	805	0																	143,538
	Non Labor						1800																		0	
	Non Labor Burden						60,308																			143,538
	TTI nonlab						126,720																			0
	Nonlabor Escalation (0%)						0																			0
	Total Escalated Nonlabor						126,720																			0

Environmental Protection
 4,592 349 0
 11,074 805 0
 15,666 1,154 0 Total FTE
 FTEs 0.1 0.0 0.0 0.1

Company # (Incl Leased Labor CC) Amt in PCS
 # Company % G.A.
 D DynCorp 3.75% PCS OH
 I Kaiser Hill 0.00% PCS OH
 L LATA 16.81% PCS OH
 S RWS 16.00% PCS OH
 S SSO 9.00% PCS OH

Site Address
 Site Support 38.00%
 Site G.A. 13.80%
 Curr Site sub 57.04%
 Prev budget 0
 Change 143,538

Q List items which are not subject to Encumbrment Address in this column
 A List Direct Basecost items in this column (e.g Sampling Costs(ASG) Media Arts(ASE) etc)

Changes are in Bolded letters

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Kaiser-Hill
MCS Doc 002 (Rev 0)

Page 1

WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

COST ACCOUNT DFA - Characterization & Analysis

WP MGR J. Law - Sitewide Actions

CA MGR J. S. Hahn - DOE

1 B&R CODE (9 DIGIT) EW2010301 ADS NO 1011

2 WORK PACKAGE APPROVALS

WP MANAGER _____ Date _____

CA MANAGER _____ Date _____

3 STATEMENT OF WORK TO BE PERFORMED IN FY96

Closeout OU3 during FY 1996 based upon an anticipated No Action Record of Decision. It is assumed that the Draft RFI/RI Report will be submitted to the regulatory agencies in early FY 96.

RCRA Facility Investigation/Remedial Investigation (RFI/RI) Phase

The purpose of the RFI/RI is to determine the nature and extent of contamination present in OU 3. The objective of the nature and extent assessment is to collect the information necessary for the assessment of risk posed by contaminants in OU 3 to both human health and the environment. Determination of this risk provides a basis for making remedial action or risk management decisions.

Topics addressed in the Draft/Final RFI/RI include the following:

- Site description
- Field investigations
- Surface Soil sampling program results
- Subsurface Soil sampling program results
- Surface Water sampling program results
- Sediment sampling program results
- Groundwater sampling program results

WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

- Air sampling program results
 - Fate and Transport results
 - Human Health Risk Assessment
 - Ecological Risk Assessment
- Activities and tasks associated with the Draft RFI/RI report to be performed during FY 96 include
- Revision of the RI document incorporating DOE/KH/RMRS comments
 - Document Production
 - RI presentation preparation
 - RI presentation to the regulatory agencies
 - Transmittal to the agencies
 - EPA/CDPHE RI Review
 - Round Table Review Session

Air monitoring will to be conducted, in support of the final RI, to collect air samples to assess the level of plutonium, americium, or uranium via three ultra high-volume air monitoring stations located offsite in the vicinity of Standley Lake Analytical results will be used to support the Human Health Risk Assessment portion of the Final RI report Activities and tasks associated with the Air Sampling during FY 96 include

- Modeling
- Development of the final RI air sampling section
- Dismantle one Meteorological Monitoring Station and three Air Monitoring Stations

Activities and tasks associated with the Final RFI/RI report that are to be performed during FY 96 include

- Development of regulatory agency comment responses and resolution of the Draft RFI/RI report
- Revision of the text and figures for incorporation into the final RFI/RI report
- Conduct internal and Quality Assurance review
- Produce the Final RFI/RI document (est 1500 pages @ 30 copies)
- Transmit the Final RFI/RI Report

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WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

Remedial Action Plan (RAP) - Proposed Plan Phase (PP)

The PP presents the site remediation/preferred alternative, and announces the Public Hearing and the Public Comment Period schedule. The PP encourages public involvement and requests community attendance at the Public Hearing and further requests submission of public comments on the information presented in the PP.

The Remedial Action - Proposed Plan phase is scheduled to continue into FY 96. It is assumed that the ARARs will be approved in late FY 95 and that working sessions for the PP will have taken place and that the Draft PP will be in the final phases of preparation for submittal to the agencies.

Activities and tasks associated with the Draft Remedial Action Proposed Plan to be performed during FY 96 include

- Production of the final draft PP
- Transmittal/Submittal of the draft PP to regulatory agencies
- Review of the draft PP by EPA/CDPHE/DOE/RMRS & K-H
- Compiling of comments
- Draft PP comment resolution meeting
- Revise the Draft PP

Activities and tasks associated with the final Remedial Action Proposed Plan to be performed during FY 96 include

- Final PP document production (est 20 pages @ 30 copies)
- Transmit the Final PP to K-H

Activities and tasks associated with the Public Comment Meeting to be performed during FY 96 include

- Arrange for meeting room & court reporter
- Develop public presentation
- Produce GIS graphics for use in the public presentation
- Conduct public PP presentation/meeting
- Receive public verbal comments
- Compile and develop responses to verbal comments

Activities and tasks associated with the Draft Responsiveness Summary to be

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WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

performed during FY 96 include

- Receive public written comments
- DOE/EPA/CDPHE agree on PP comments
- Resolve and incorporate PP Public Hearing comments into the Draft Responsiveness Summary (RS)
- Produce the Draft Responsiveness Summary
- Transmit the Draft RS to K-H
- Resolve and incorporate draft RS comments into the Final RS
- Transmit the Final RS

Corrective Action Decision (CAD) /Record of Decision (ROD) Phase

The ROD document presents the selected remedial action for OU3. The selected remedial action will be chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Re-authorization Act (SARA), of 1986, and the Colorado Hazardous Waste Act (CHWA)

Activities and tasks associated with the draft CAD/ROD that are to be performed during FY 96 include

- Development of a preliminary Draft CAD/ROD
- Conduct a review and strategy meeting with DOE and Regulatory Agencies
- Resolve and incorporate DOE and Regulatory Agencies comments into the Draft CAD/ROD
- Conduct an internal & QA review of the preliminary draft ROD
- Prepare a final draft ROD incorporating all review comments
- Transmit & submit ROD to the EPA/CDPHE
- Receive comments from regulatory agencies
- Compile and determine resolution to agencies comments

Activities and tasks associated with the final CAD/ROD that are to be performed during FY 96 include

- Incorporate Draft CAD/ROD comments into the Final CAD/ROD
- Conduct final team review
- Incorporate final team review comments

WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

- Final CAD/ROD document production (est 30 pages @ 30 copies)
- Transmit & submit the Final CAD/ROD
- Incorporate agency comments
- Obtain Agency Approval
- Release ROD/RS to the Public

Plutonium Loading

Isotope ratio analysis will be re-activated and completed. In this phase soil samples that have not been previously analyzed by LANL, will be identified. Identification of unanalyzed soil samples will be achieved through a comparison review of chain of custody forms, the LANL surface soil sample report, RFEDS soil sample identification database and the OU3 RI sample plot identification numbers. Once the unanalyzed soil samples have been identified they will be located in the storage area and prepared for shipment and shipped to LANL for processing as required for their analysis. When results are received from LANL they will be used to determine the spatial extent of Rocky Flats related plutonium vs global fallout. The results will be then converted into an uncertainty map and a Pu inventory map. These maps will provide the most definitive answer regarding the extent of Rocky Flats plutonium in soils of OU3.

The results of the plutonium loading study will be compiled in a detailed report that will be forwarded to Kaiser-Hill and DOE.

Activities and tasks associated with the final CAD/ROD that are to be performed during FY 96 include:

- Determination of sample requirements
- sample search
- locate soil samples
- shipping preparation of soil samples
- soil sample shipment
- spatial analysis and Pu loading determination
- Admin/Tech, GIS, and managements costs

4 DRIVERS SUPPORTING THE STATEMENT OF WORK

(Type R = Regulatory, D = DOE Orders/Guidance)

Driver Type(s)Description of driver/CAD relationship

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WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

- | | | | |
|---|------------|---|---|
| a | IAG 1320-2 | R | Interagency Agreement - established a legal enforceable contract among the U S Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), and the U S Department of Energy (DOE) that facilitates coordination of the cleanup, oversight, and standardization of the cleanup requirements Specific OU3 requirements include 1) Submission of the Draft Phase I RFI/RI Report - 10/30/95, 2) Submission of the Final Phase I RFI/RI Report - 7/11/96 |
| b | RCRA | R | Resource Conservation and Recovery Act - regulates generation storage, treatment and disposal of hazardous waste |
| c | CERCLA | R | Comprehensive Environmental Response, Compensation and Liability Act - governs Superfund investigation and remedial activities at abandoned hazardous waste sites Rocky Flats Environmental Technology Site (RFETS) was added to the Superfund National Priorities List during 1989 (40 CFR 300, 302, 300.175, 310, 350, 355, 370, 372, 11) |

5 BASIS AND ASSUMPTIONS SUPPORTING THE STATEMENT OF WORK

The FY 96 performance (stretch) objective goal for the offsite areas is to closeout Operable Unit 3

Assumptions include

- Development and production of all documents will be completed by RMRS personnel
- There will be no COCs in addition to those previously identified in OU 3
- Development and preparation of the draft RFI/RI proceeded prior to receiving regulatory agency approvals of the following documents

WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

- CDPHE Conservative Screen COC Selection Letter Report
- Technical Memorandum (TM) #5 Human Health Risk Assessment (HHRA) Toxicity Assessment
- TM # 4 HHRA Model Selection
- Ecological Evaluation Report

The risk exists that the draft RFI/RI report will not be approved by the regulatory agencies without approval of the above documents

- Proceeding without agency approval of the preliminary documents will not impact the approval of the Draft RFI/RI
- RFCA will not commit the project to scope outside the current IAG
- Five source areas will be evaluated The Risk assessment calculations based on the supplied data aggregation approach will generally coincide with the four IHSS designations and Remedial Lands
- No added groundwater issues will be addressed in the Phase I RFI/RI
- TM #2 will not require revision and re-submittal
- Since a No Action ROD is anticipated, a Feasibility Study will not be conducted ARARs will be addressed in the PP
- It is assumed that the ARARs will be approved in late FY 95 and that working sessions for the Proposed Plan (PP) will have taken place and that the Draft PP will be in the final phases of acceptance into early FY 96
- RMRS/K-H/DOE/regulatory agencies will commit to an integrated review effort (isolated location) for presentation and discussion of submitted documents
- Stakeholders will attend presentations to provide project information to facilitate acceptance and approval These presentations will be in parallel to scheduled activities
- RMRS/K-H/DOE reviews will be done in parallel
- The PP and ROD will be developed in a team effort with RMRS/K-H/DOE/regulatory agencies
- Upper management and legal counsel will support the No Action ROD to ensure success in the accelerated schedule
- RMRS/K-H/DOE/regulatory agencies can agree on comments and resolutions within the schedule constraints
- Agencies & DOE will have appropriate staff available to support scheduled reviews and activities
- Funding Level will be static for the FY
- It is assumed that no external audits will be performed on the OU3 Offsite Project, therefore no funding has be requested
- All previous QA Audit findings have been satisfactorily resolved and require no further actions

WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

- Comments made on documents submitted for review will consist of reasonable and constructive remarks with workable solutions
- The volume of comments made on document submitted for review will not impact the current schedule
- This project budget and schedule is based on the premise that all stakeholders are actively supportive of the accelerated closeout of Operable Unit 3. This means that reviews and approvals will be timely, and that the agencies and DOE will exhibit a willingness to commit to a No Action ROD
- No FY 1995 charges will be carried into FY 1996
- Full funding will be made available to fund the Isotope Study/Plutonium Loading analysis as described in the "Plutonium Loading in Operable Unit 3 Offsite Areas Proposal Submitted in Support of the Operable Unit 3 Remedial Investigation" dated November 10, 1995
- DOE will ensure that LANL will be fully funded to analyze OU 3 isotope soil samples

6 MILESTONES TO BE ACHIEVED IN FY96

<u>ACT#MILESTONE TITLE/DESCRIPTION</u>	<u>BASELINE DATE</u>	<u>HQ MILE Y/N</u>
Submit Draft RFI/RI Report to Regulatory Agencies	10/19/95* 10/30/95**	Y
Submit Draft Proposed Remedial Action Plan to Regulatory Agencies	10/19/95*	N
Submit Final RFI/RI Report to Regulatory Agencies	03/05/96* 07/11/96**	Y
Submit Final Proposed Remedial Action Plan to Regulatory Agencies	03/05/96*	N
Public Hearing	03/26/96*	N
Public Comment Period Concludes	04/02/96*	N
Submit Draft Responsiveness Summary to Regulatory Agencies	06/04/96*	N

* Schedule Milestone Date
** IAG Milestone Date

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WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

Submit Final Responsiveness Summary to Regulatory Agencies	06/26/96* N
Submit Draft Record of Decision to Regulatory Agencies	05/08/96* N
Submit Final Record of Decision to Regulatory Agencies	07/22/95* N
Ship Isotope soil samples	(TBD) 1 wk after BCP approval
Receive Spatial Analysis & Pu Loading Study	(TBD) 4 months after receipt of LANL analysis report

7 PERFORMANCE MEASURES SPECIFIC TO THIS WORK PACKAGE

<u>PERFORMANCE MEASURE</u>	<u>MEASUREMENT CRITERIA</u>
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8 FY96 BASELINE COST PLAN (\$000) (FOR CAPITAL PROJECTS WORK PACKAGES ATTACH SUPPLEMENT TO DELINEATE EACH PROJECT - B/A AND B/O)

<u>B&R</u>	<u>ADS</u>	<u>FY96 (\$000)</u>
EW2010301	1011	\$654

9 OUTYEAR PLANNING BASIS

a SCOPE OF WORK (FY97-2001)

None - It is anticipated that this work package will be closed-out in FY96

b MAJOR MILESTONES (FY97-2001)

* Schedule Milestone Date
** IAG Milestone Date

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WORK PACKAGE

WORK PACKAGE 12331 - OU3 OFFSITE AREAS CLOSEOUT

<u>ACT#</u>	<u>MILESTONE TITLE/DESCRIPTION</u>	<u>BASELINE DATE</u>	<u>HQ MILE Y/N</u>
NA	None		

10 OUTYEAR COST ESTIMATE BASIS (ATTACH SUPPLEMENTAL B/A - B/O PLAN FOR EACH CAPITAL PROJECT)

	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
NA	None	None	None	None	None

11 UNFUNDED ACTIVITIES

<u>UNFUNDED ITEM</u>	<u>TECH OR FUNDING SHORTFALL</u>	<u>SHORTFALL AMOUNT \$K</u>
Pu Isotope Study	Funding	88K
Consultant Services	Funding	20K

12 RESOURCE LOADED SCHEDULE

See attached project schedule and resource activities

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