

4224 RF 93



Department of Energy

ROCKY FLATS OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

SEP 23 7 05 AM '93

DUE DATE

ACTION	DIST	LTR	ENC
BENEDETTI, R.L.			
BENJAMIN, A.			
BERMAN, H.S.			
CARNIVAL, G.J.			
COPP, R.D.			
CORDOVA, R.C.			
DAVIS, J.G.			
FERRERA, D.W.			
FRANZ, W.A.			
HANNI, B.J.			
HEALY, T.J.			
HEDAHL, T.G.			
HILBIG, J.G.			
KIRBY, W.A.			
KUESTER, A.W.			
MANN, H.P.			
MARX, G.E.			
McKENNA, F.G.			
MORGAN, R.V.			
PIZZUTO, V.M.			
POTTER, G.L.			
RILEY, J.H.			
SANDLIN, N.B.			
SATTERWHITE, D.G.			
SCHUBERT, A.L.			
SETLOCK, G.H.			
SULLIVAN, M.T.			
SWANSON, E.R.			
WILKINSON, R.B.			
WILSON, J.M.			

SEP 17 1993

EG&G
ROCKY FLATS PLANT 93-DOE-10270
CORRESPONDENCE CONTROL

Mr. Gary Baughman
Hazardous Waste Facilities Unit Leader
Colorado Department of Health
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Gentlemen:

The DOE is submitting material as agreed by the Operable Unit (OU) 4 (Solar Ponds) Extension of Dispute and Process for Resolution agreement (Draft and Final Phase I RFI/RI Report) signed August 13, 1993. Per this agreement the DOE has undertaken cooperative analysis and discussion efforts with members of your staff and the Environmental Protection Agency (EPA). The results of this effort are provided for your approval as agreed. Also, the DOE is forwarding as a separate letter, a proposal to address the Phase II aspects of the current OU4 IAG milestones. This action is to meet your mutual commitment from the August 13, 1993, agreement to attempt to resolve the Phase II issue concurrent with the dispute resolution.

1) Annotated Table of Contents for Interim Measure/Interim Remedial Action (IM/IRA) Decision Document - this describes methodology for incorporating aspects of the RFI/RI Report into the IM/IRA Decision Document (IM/IRA DD), as well as performance monitoring and further characterization efforts (formerly Phase II investigation) and the pilot decontamination and decommissioning of Building 788.

- 2) Revised IAG Milestones -
- Submit Draft Phase I RFI/RI Report None
 - Submit Final Phase I RFI/RI Report None
 - Submit Draft Proposed IM/IRA DD (with Enhanced Conceptual Design) 4/14/94
 - Submit Proposed IM/IRA DD 6/24/94
 - Submit IM Design Workplan (replaced with in-process Design Review during August 1994) None
 - Submit IM/IRA Responsiveness Summary 11/1/94
 - Submit Final IM/IRA DD and Resp. Summary 1/13/95
 - Submit IM/IRA Implementation Document (combined with Title II Design submittal) None
 - Submit Final IM/IRA Title II Design 3/10/95
 - All Solar Ponds emptied of water and sludge 1/20/95
 - Begin IM/IRA Construction 11/22/95

The development of these proposed new milestones has required significant analysis. Precursor activities such as decontamination and decommissioning of Building 788 as a "pilot" IM/IRA have also been considered. For your review in determining the validity of these milestones the following supporting scope definition and schedules are provided as attachments:

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

CORRES CONTROL	x	x
PATS/T130G		

Reviewed for Addressee
Corres. Control RFP

9-23-93
DATE BY

Ref Ltr. #

DOE ORDER # 5400

SEP 17 1993

G. Baughman
93-DOE-10270

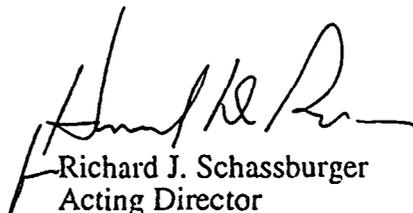
2

- 1) IAG Milestones with definitions (Attachment 1.1)
- 2) Accelerated Sludge Removal Project schedule assumptions (Attachments 2.1 and 2.2)
- 3) Proposed OU4 IM Commitment Schedule with assumptions (Attachments 3.1 and 3.2)
- 4) Operable Unit 4 IM/IRA Program Draft Annotated Outline of IM/IRA (Attachment 3.3)

The material above reflects a cooperatively developed approach to technical and regulatory process actions which allows an acceleration of the IM/IRA start of construction by 15 months. However, the revised technical approach and accelerated schedules are also linked with changes in the budget profile of the solar pond project. Acceleration of considerable design and construction work into fiscal years 1995 and 1996 from 1997 and 1998 exceeds the original budget targets for the solar pond project. As you know, our environmental restoration budget profile under the new administration is limited to at a modest 3% growth rate at best. Therefore, completion of the actions and milestones above will require use of Environmental Restoration Division funds in FY96 which were formerly planned for other IAG activities. We have attached a budget profile (Attachments 4.1 and 4.2) which shows the impact of the OU4 acceleration and also a list of potential target areas (Attachment 4.3) which could be used to redistribute FY96 funds to support the OU4 acceleration. Resolution of the exact IAG areas which may be reduced in FY96 to support OU4 acceleration is not necessary to resolve this dispute. However, it is necessary for all parties to acknowledge that the shifting of funds between fiscal years to allow acceleration of OU4 will necessarily create a delay in some other IAG tasks, representing good cause for schedule extensions for those tasks as prescribed in Part 42 of the IAG.

The DOE would like to acknowledge the effort of all parties in developing this dispute resolution strategy, a strategy which streamlines our regulatory and technical processes to promote cleanup over paperwork. We look forward to continued cooperative efforts which will continue to improve the overall performance of our environmental restoration effort. Any specific questions relative to this material should be directed to Frazer Lockhart at 966-7846.

Sincerely,



Richard J. Schassburger
Acting Director
Environmental Restoration Division

Enclosure

SEP 17 1993

G. Baughman
93-DOE-10270

3

cc w/Enclosure:
H. Belencan, EM-453
J. Hartman, AMTER, RFO
M. Hestmark, EPA

cc w/o Enclosure:
R. Greenberg, EM-453
A. Rampertaap, EM-453
A. Pauole, OOM, RFO
K. Izell, OCC, RFO
N. Hutchins, EG&G
J. Keith, BOR

IAG MILESTONES

<u>DESCRIPTION</u>	<u>CURRENT DATE</u>	<u>PROPOSED DATE</u>
Submit draft Phase I RFI/RI Report	N/A	Delete
Submit final Phase I RFI/RI Report	N/A	Delete
Submit draft Proposed IM/IRA DD (with enhanced conceptual design)	4/14/94	4/14/94
Submit Proposed IM/IRA DD	9/12/94	6/24/94
Submit IM Design Workplan (replaced with in-process design review)	5/24/95	Delete
Submit IM/IRA Responsiveness Summary	1/25/95	11/1/94
Submit Final IM/IRA DD and Resp. Summary	4/24/95	1/13/95
Submit IM/IRA Implementation Document (combined with Title II Design Submittal)	2/26/96	Delete
Submit final IM/IRA Title II Design	6/24/96	3/10/95
All Solar Ponds emptied of water and sludge	New	1/20/95
Begin Phase I IM/IRA Construction (Award of IM/IRA construction contract)	1/28/97	10/20/95

IAG MILESTONES

Dates proposed are DOE's due-dates to CDH and EPA. DOE will have already reviewed these deliverables and EG&G's response to DOE comments from those reviews. These DOE review loops are being included in the accelerated IM schedule. EG&G expects to deliver the DOE-approved document to the regulators on the dates shown. DOE will provide the corresponding transmittal letters to EG&G prior to or on the due-date.

Draft Phase I RFI/RI Report:

Proposed: delete IAG: 5/21/93

Final Phase I RFI/RI Report:

Proposed: delete IAG: 10/18/93

(1) Draft Phase I Proposed IM/IRA DD:

Proposed: 4/14/94 IAG: 4/14/94

This deliverable will include all items described in the draft annotated outline for the IM/IRA Decision Document, which is attached. The options to be included in the document will be established through interactive meetings of EG&G, DOE, EPA, and CDH staff; these meetings will be documented for the Administrative record through meeting minutes or other appropriate means. A 40% design is included in the draft. Unvalidated data will be used. Comments on the submittal are intended to improve clarity for review by the public. All substantive regulator input was presented in the round table review loop, and this set of comments will be editorial in nature. (WBS 71721)

Any additional investigation data, such as from vertical drilling through Pond 207C, and evaluation of that data will be incorporated into the DD as an amendment at a later time. (EG&G may include such data in the DD if the data is available in time for inclusion without impacting the DD schedule). The amendment schedule will not be specified in the dispute resolution. (WBS 71732)

The 40% design component of the DD will include:

- 1) A description of the selected alternative
- 2) A preliminary set of drawings which will include:
 - a. site plan showing the structures that will be removed
 - b. site plan showing utilities that will be removed and utilities that will be re-routed
 - c. site plan showing the extent of the engineered cover
 - d. cross section of the engineered cover
- 3) Waste management plan
 - a. waste flow diagram
 - b. If a waste storage facility is required, then the following drawings will be included:
 1. civil site plan

2. facility section and details
3. facility plan

c. If a waste treatment facility is required, then the following drawings will be included:

1. process flow diagram
2. facility layout (not equipment arrangement)
3. materials and equipment list

d. Identification and description of any required engineering/treatment studies

e. Construction quality assurance plan

- 4) An outline of the specification package
- 5) A preliminary project construction schedule
- 6) A preliminary cost estimate (50% contingency)
 - a. capital cost
 - b. operating costs

(2) Phase I Proposed IM/IRA DD:

Proposed: 6/24/94

IAG: 9/12/94

DD with revisions based on comments from DOE, EPA, and CDH reviews of the draft Phase I Proposed IM/IRA DD and a 40% design. Approximately 30% data validation will be included for the RFI report data. This document is the version to be submitted to the public for their review and comment.

(3) IM/IRA Responsiveness Summary:

Proposed: 11/1/94

IAG: 1/25/95

Response to the public comments. A single response may be used for a group of related comments. (WBS 71742)

(4) Final IM/IRA & Final Responsiveness Summary:

Proposed: 11/13/95

IAG: 4/24/95

DD with revisions based on the responses to public comments and agency review of the IM/IRA Responsiveness Summary. While revisions to the design necessitated by public comment will be included, the design will be at the 40% level. A revised Responsiveness Summary, based on CDH and EPA review of the IM/IRA Responsiveness Summary, will be included in the DD. (WBS 71752)

IM Design Work Plan:

Proposed: Delete

IAG: 5/24/95

(5) Final IM Title II Design:

Proposed: 3/10/95

IAG: 6/24/96

The document will present the final Title II design package of drawings, specifications, design analyses as appropriate, and the cost estimate will be included with the implementation document in the same deliverable. The document is intended for implementation by a knowledgeable subcontractor, and does not include introductions or other narratives. (WBS 83100)

IM/IRA Implementation Document:

Proposed: Delete

IAG: 2/26/96

(*) Solar Ponds Emptied of Water & Sludge

Proposed: 1/20/95

IAG: None

Waste water and sludge removed from ponds, ponds rinsed and dry of other than incidental rain water. This work is being performed as part of the Accelerated Sludge Removal Project.

(6) Award of Construction Contract:

Proposed: 10/20/95

IAG: 1/28/97

Award of construction contract commences the construction phase of the project. The selected contractor will immediately commence preparation of required safety plan, site-specific training of employees, material and services procurement, and mobilization. (WBS 25000)

September 9/14/93

Rev 4

ACTIVITY ID	ACTIVITY DESCRIPTION	ORIG	START	DUR	RESP	FINISH	ACTIVITY BAR/EARLY DATE	CRITICAL ACTIVITY	PROGRAM BAR	MILESTONING ACTIVITY
EARLY	EARLY	EARLY	EARLY	EARLY	EARLY	EARLY	5/93			
5300-	DOE Approval for Operations	DOE	0	6	APR94					
8130-	Tent 6 Tankage Installation of 18 Tanks	RDC/COL	12	7	FEB94	22FEB94				
CONSTRUCTION - TANK INSTALLATION										
OPERATIONS APPROVED										
OPERATIONAL PLANNING										
5155-	Administrative & Project Management	RLB/KEI	369	11	JAN94	29JUN95				
5160-	Operational Planning - Processing	TGH/MOR	20	11	JAN94	7FEB94				
5170-	Operational Planning - Procedures	RLB/KEI	20	11	JAN94	7FEB94				
5175-	Operational Planning - Procedures Approval	RLB/KEI	0	8	FEB94					
5180-	Operational Planning-Develop Classroom Training	AMK/SAH	23	25	JAN94	24FEB94				
5182-	Operational Planning-Finalize Classroom Training	AMK/SAH	3	25	FEB94	1MAR94				
5184-	Operat Planning-Approval of Training Materials	AMK/SAH	3	2	MAR94	4MAR94				
5186-	Operational Planning - Conduct Training	AMK/SAH	2	7	MAR94	8MAR94				
5187-	OJT & Qual	WASTE	9	9	MAR94	21MAR94				
5190-	Operational Planning - Security Considerations	TGH/MOR	20	8	FEB94	7MAR94				
5210-	Operational Planning - Review & Comments	RLB/KEI	10	22	MAR94	5APR94				
5220-	Modify MSRIC	TGH/SCH	17	7	DEC93	6JAN94				
5240-	05A	RLB/KEI	8	7	DEC93	16DEC93				
5250-	Modify H&S Plan	RLB/KEI	7	7	DEC93	15DEC93				
5260-	Modify Emergency Preparedness Plan	RLB/KEI	10	7	DEC93	20DEC93				
6710-	Execute 50 Vent Test for Tent 3	RLB/KEI	5	4	FEB94	10FEB94				
6720-	Execute 50 I&C Test for Tent 3	RLB/KEI	5	4	FEB94	10FEB94				
6730-	Pre-Operational - Tent 3 Readiness Assessment	RLB/BRD	10	11	FEB94	24FEB94				
6740-	Pre-Operational - Tent 3 Review & Comment	RLB/KEI	5	25	FEB94	3MAR94				
6750-	Tent 3 Tankage Operational	RLB/KEI	0	3	MAR94					
6760-	Execute 50 Vent Test for Tent 4	RLB/KEI	5	22	FEB94	28FEB94				
6770-	Execute 50 I&C Test for Tent 4	RLB/KEI	5	22	FEB94	28FEB94				
6780-	Pre-Operational - Tent 4 Readiness Assessment	RLB/BRD	10	1	MAR94	14MAR94				
6790-	Pre-Operational - Tent 4 Review & Comment	RLB/KEI	2	15	MAR94	16MAR94				
6810-	Tent 4 Tankage Operational	RLB/KEI	0	16	MAR94					
6820-	Execute 50 Vent Test for Tent 6	RLB/KEI	5	23	FEB94	1MAR94				
6830-	Execute 50 I&C Test for Tent 6	RLB/KEI	5	23	FEB94	1MAR94				
6840-	Pre-Operational - Tent 6 Readiness Assessment	RLB/BRD	10	2	MAR94	13MAR94				
6850-	Pre-Operational - Tent 6 Review & Comment	RLB/KEI	2	16	MAR94	17MAR94				
6860-	Tent 6 Tankage Operational	RLB/KEI	0	17	MAR94					
7022-	Pre-Operational - B Pond Construction Power Test	RLB/KEI	2	15	MAR94	16MAR94				
7024-	Pre-Operational - B Pond Construction Press Test	RLB/KEI	2	15	MAR94	16MAR94				
7025-	Pre-Operational - B Pond Const Readiness Assess	RLB/BRD	10	17	MAR94	30MAR94				
PRE-OPERATION - TENTS/TANKAGE										
PRE-OPERATION - POND/CLARIFIER										
<p>ACCELERATED SLUDGE REMOVAL PROJECT</p> <p>EG&G ROCKY FLATS</p> <p>MASTER SCHEDULE</p>										
<p>Plot Date 12SEP93</p> <p>Data Date 1JUN93</p> <p>Project Start 1JUN93</p> <p>Project Finish 18JUN95</p> <p>(c) Primavera Systems, Inc.</p>										
<p>Activity Bar/Early Date</p> <p>Critical Activity</p> <p>Program Bar</p> <p>Milestoning Activity</p>										
<p>Sheet 4 of 5</p> <p>DATE - 10-SEP-93</p> <p>Checked Approved</p>										

ASSUMPTIONS FOR THE ACCELERATED POND SLUDGE REMOVAL SCHEDULE

- Organizations external to EG&G will complete their activities in accordance with the schedule. Examples are:
 - DOE will complete the NEPA process before equipment is ready to be ordered.
 - CDH will grant the permit changes in a timely manner.
 - DOE will approve the BCP in a timely manner.
- No formal Readiness Review is required. The CCCP will provide control equivalent to an ORR proportional to need.
- Title II Design & Engineering will be performed by an MTS sub contractor. EG&G Engineering & Technology will approve all Design and Engineering products
- Review durations are based on Safety Category 3, Quality Level 3 procurements.
- EG&G will give project top priority in terms of resources.
- A graded approach will be used for any work to be performed (I.E. IWCP Packages).
- Sprinklers will not be required for the tents even though the cost of tents and tanks exceeds the \$1M limit for structures without fire protection.
- The current HNUS piping design is acceptable from a seismic standpoint.
- The 5 foot main aisles provided in the tents will be suitable for all RCRA inspections (I.E. personnel will not have to circle each tank as part of the daily RCRA inspection.)
- No endangered species of plants or animals will be discovered that impact the schedule.
- No winter (11/1-4/1) pumping operations (external to the tents) are required.

Assumptions

Procedural

Department of Energy

The DOE will commit to a high degree of interaction with EG&G and the Regulators in order to achieve the accelerated review schedule.

The DOE will authorize commitment and expenditure of funds in a timely manner. Funds will appear in the FIN plan on or before the dates needed.

The DOE will provide guidance for and approval of deferral of effort on other OUs made necessary by acceleration of effort on OU4, since funding for the ER program is fixed.

The DOE will reach closure with the Regulators regarding the above-mentioned deferral of effort on other OUs within a period of time that allows reallocation of funds within the ER program to support PCCB action in accordance with the schedule.

The DOE will support EG&G in obtaining timely and cost effective support from Wackenhut, Inc., and from the DOE security staff.

The DOE will negotiate a contract with a commercial waste disposal facility for disposal of wastes generated during the conduct of this project. Specifically, the use of Envirocare in Utah is assumed. The DOE will grant an Order waiver to allow waste disposal at a commercial facility.

The DOE will authorize early bidder qualification for all applicable procurements, especially for the construction contractor(s).

The DOE will provide, within the period defined in the schedule, authorization from the Secretary for award of the construction contract.

The DOE will authorize EG&G to proceed at Key Decision Points 2 and 3 (KD2 and KD3).

The DOE has granted approval of KD0 and will formalize that approval no later than September 20, 1993.

The DOE will either waive KD1 or will combine KD1 and KD2 at or before the time that authorization is required to proceed with Title II design.

The DOE will agree with an appropriate graded approach to safety review and documentation.

The DOE will concur in and approve hazard classification of the remediation of OU4 to be Category III.

The DOE, HQ will delegate approval authority of Category III Safety Analysis Reviews (SAR) to DOE, RFO or will approve the project SAR, if required, within the period described in the schedule.

The DOE will approve, within 2 weeks of notification, the Baseline Change Proposal (BCP).

The DOE will provide early concurrence and direction regarding the proper level of NEPA documentation to be prepared and will commit to scheduled review durations for the NEPA process.

The DOE will authorize performance of Title II design prior to issuance of the Finding of No Significant Impact (FONSI).

The DOE will provide early notification of deficiencies in the NEPA submittals such that the limited period included in the schedule to include new issues is not exceeded.

The DOE will expeditiously review and approve all standards, criteria, policies, procedures, and other such documentation necessary to conduct D&D activities on the OU4 site.

The DOE will provide funding adequate to support D&D activities on the OU4 site.

The DOE will reach agreement with the Regulators, by the time indicated on the schedule, regarding integration of closure of OU9 with this project.

The DOE will provide guidance, by the time indicated on the schedule, regarding the land use assumption required for the closure process.

The DOE will come to closure, by the time indicated on the schedule, with the Regulators regarding the current dispute resolution and will document all formal and informal agreements involved in that resolution.

The DOE will provide transmittal authorization and action for the various deliverables.

The DOE will provide authorization as required to allow long-lead procurement and authorization to supply materials so procured to contractors as Government Furnished Equipment (GFE).

The DOE will seek adjustment of the applicable IAG milestones in the event that the remediation method/system used for the planning baseline is rejected by the Regulator or the Public or is otherwise not implemented.

Regulatory Agencies

The Regulatory Agencies will consider significant deviation from the planning baseline, driven by failure of the Regulators or the Public to approve the remediation methodology described therein, to be justification for modification of applicable IAG milestone dates and/or descriptions.

The Regulators will reach agreement with the DOE regarding deferral of effort on other OUs made necessary by acceleration of effort on OU4 within a period of time that allows reallocation of funds within the ER program to support PCCB action in accordance with the schedule.

The Regulators will provide approval of necessary permits in accordance with the applicable periods described in the schedule and will consider failure of approval to be justification for modification of subsequent IAG milestone dates and/or descriptions.

Participation of the regulatory agencies in the joint development and review process for the identification and selection of the remedial alternative will be consistent and continuous over the required periods. Substantive technical input will be completed by the end of the joint process.

Durations of agency review periods will be as previously asserted by the agencies and as shown on the schedule.

Duration of public comments period will be no more than 60 calendar days.

Technical

A hybrid landfill closure (dirty closure) of the ponds is used as the planning baseline. In the event that a substantially different option is selected, then the potential impacts on the design planning, costs, and schedules will require evaluation/revision. The baseline remediation scenario has the following principal features relative to development of the IM/IRA Decision Document:

Sludges will be removed from the ponds prior to pond closure activities. Further, it is assumed that residual radiation and hazardous contaminant levels will be reduced to acceptable worker levels.

A single RCRA-equivalent cover will be placed over the Solar Evaporation Ponds. The cover will incorporate composite design features utilizing geo-membranes and synthetic liner materials, clay or compacted clays that meet the hydraulic conductivity requirements outlined in the RCRA regulations, and soil and vegetative components. Local clay will be sufficient.

It is assumed that, prior to installation of the cover, the top-most 6 inches of pond structure will be removed and disposed of as waste.

The cover design will incorporate drainage features to prevent run-on/run-off and to provide erosion control.

The cover will be sized and implemented to encompass the RCRA-designated waste zone (IHSS 101 Boundary).

Information on piping, utilities, and other below-grade structures has not been reviewed as part of this strategy. The remedial design will specify the removal or relocation of underground structures and utilities where appropriate based on plant drawings and other information.

Gradient control of shallow ground water will not be required. Encapsulation of the pond areas using slurry walls, grout curtains, or any other construction is not included in this schedule assumptions/baseline.

Planning

No additional funding will be provided by DOE to EG&G to support accelerated solar ponds closure. Funding for this task must be reallocated from within the planned Rocky Flats environmental restoration budget. Such reallocation will necessarily cause delays in other IAG tasks, representing good cause for schedule extensions for those tasks. Further, it is assumed that such funding is made available by DOE in a timely manner such that work dependent upon the funding can proceed in accordance with the schedule. Specifically, it is assumed that, in the case in which award of the prime construction contract and actual commencement of work under the contract fall in different fiscal years, full authority to obligate the contract funding is available at the time of contract award.

This schedule assumes a request will be granted by EPA and CDH to delete several IAG Table 6 Milestones as follows: "IM Design Work Plan", "IM/IRA Implementation Document", "Draft Phase I RFI/RI Report", "Final Phase I RFI/RI Report".

EPA, CDH, DOE, and EG&G agree to review various aspects of all documentation generated concurrently to facilitate expediting this schedule.

Public, agency, and DOE review periods will not exceed, in quantity or duration, those scheduled.

Building 788, located between Pond 207C and Pond 207A, will be removed prior to closure of the solar ponds and adequate funding will be made available to support this and other required D&D activities.

Building 788 will be closed and razed under the authority of the IM/IRA DD for closure of the solar ponds.

Sludge removal, treatment, handling, storage and disposal are outside the scope of this Phase I IM/IRA DD and schedule, and thus are not included in them.

Initial issue of Decision Document does not include the C-Pond and B-South-Pond Remedial Investigation. The C-Pond and B-South Pond Remedial Investigation will be included, through amendment of the IM/IRA, when available, and is excluded from the deliverable-commitments for IAG milestones.

A single subcontract will be let for the Building 788 demolition and Solar Pond closure construction.

The Proposed IM/IRA Decision Document will not differ significantly from the Draft Proposed IM/IRA Decision Document. Only minor changes in organization, clarification, format, or terminology will be required.

NEPA

The scope of NEPA activities will be an Environmental Assessment only (an Environmental Impact Statement will not be required).

DOE will find FONSI applies.

DOE will commit to completing their review per the schedule.

DOE will authorize Title II Design and construction-subcontracting up to the award of the subcontract to proceed prior to FONSI issuance.

EG&G Ecology and NEPA Division (END) has in-hand all necessary environmental data/background information.

EG&G Solar Pond Projects (SPP) has in-hand all necessary RI data.

NEPA document for disposal at Envirocare is in place.

Planning Baseline

Since the project scope includes definition of the remediation system to be implemented as well as its design and actual implementation, it is necessary to pre-define a baseline system so that planning of the project activities that follow the definition can proceed. The planning baseline developed includes removal of all pond structures and other existing facilities from the site; removal of minimal amounts of soil from beneath the ponds and from the site in general;

packaging of pond structures and soil in approved waste containers and disposal at a commercial waste disposal facility; decontamination of D&D rubble to comply with waste minimization objectives; packaging of contaminated D&D rubble in approved waste containers and disposal at a commercial waste disposal facility; and construction of a single RCRA-compliant cap extending, nominally, to the boundaries of existing IHSS 101.

**OPERABLE UNIT 4 IM/IRA PROGRAM
DRAFT ANNOTATED OUTLINE OF IM/IRA DD**

OBJECTIVE (2 pages)

Concise statement of objective for the remedy.

INTRODUCTION (25 pages)

General information describing the Rocky Flats Plant and location, the intent of the IM/IRA project, the uniqueness of this project, dispute resolution process and chronology of events, regulatory criteria/issues associated with the Interagency Agreement (IAG) and the Solar Evaporation Ponds (SEP).

BACKGROUND (20 pages)

Information specifically pertaining to the SEP and possibly RFP, if appropriate/needed. This section will describe the overall use of the ponds, when they were constructed, the construction chronology, construction material, types of waste streams and constituents.

PART I

RCRA FACILITIES INVESTIGATION/REMEDIAL INVESTIGATION

Site Investigation (30-35 pages)

The OU 4 site investigation will describe the objectives/rationale for drilling, sampling, geophysical surveys, radiological surveys, vadose zone equipment installation, surficial soil sampling, analytical methodologies, etc.

Summary of the Phase I RFI/RI Data (40-45 pages)

This section will present, in a summary format, the data from the OU 4 Phase I RFI/RI Program. Various data will include, but may not be limited to, radiological characterization, geophysical characterization, surficial and subsurface characterization, geologic characterization, and vadose zone characterization. The "raw" data will be incorporated into appendices.

Nature and Extent of Contamination for Source and Soils (20-25 pages)

This section will be our interpretations of the data. This section will only discuss the nature and extent of contamination associated with the source and soils, as required in the IAG. Hazardous substance areas showing risk levels in excess of 10⁻⁶ will be identified.

Contaminant Transport and Fate (60-80 pages)

This section will present a conceptual model, contaminant behavior and mobility, and contaminant migration pathways.

Summary and Conclusions (20 pages)

This section will summarize our understanding/interpretations of the nature and extent of contamination associated with the Solar Evaporation Ponds/Operable Unit 4.

PART II

INTERIM MEASURE/INTERIM REMEDIAL ACTION DECISION DOCUMENT

Analysis of Dirty Closure vs Clean Closure/Hybrid Closure (30 pages)

This section will discuss the feasibility of clean closure and dirty closure from a regulatory, technical, and cost perspective. Also, this section will provide the rationale for the selected closure option (clean vs dirty). In general, this section will be the "bridge" from the Phase I RFI/RI to the Phase I IM/IRA.

Remedial Options Selection Criteria (20 pages)

This section will establish the criteria which will be utilized in for evaluation of the remedial options and in selecting the proposed remedy.

Remedial Options Analysis (100 pages)

This section will be the "core" of the IM/IRA DD. This section will present the remedial options evaluated against the selection criteria.

Selected Remedy (20 pages)

This section will present the selected remedy for closure of the ponds and provide the basis and justification for the selected alternative. This section may also include quantitative/qualitative modelling in support of defining the effectiveness of the selected alternative, and explanation of how the selected remedy will be consistent with Phase II for OU 4.

Identification and analysis of ARARs (20-25 pages)

This section will present the ARARs which are directly relevant, if appropriate, to the selected alternative.

Risk Assessment (70-80 pages)

This section will present a methodology and results associated with the risk of the selected remedy. In general, a risk analysis will be conducted for the selected remedy. Areas with risk levels above 10⁻⁶ will be addressed.

PART III

CONCEPTUAL DESIGN

Design Components (30 pages)

This section will present the "engineering" components associated with the selected alternative, ie., geomembrane, clay material, sand material, etc.

Conceptual Design (50 pages)

This section will be the first stage in the engineering drawings for the selected alternative. This will eliminate the IM Design Work Plan and the Title I as separate packages, and provide a 10% design level in the draft and 40% design level in the final IM/IRA DD.

PART IV

PERFORMANCE MONITORING and FURTHER EVALUATION

Performance Monitoring and Assessment of Selected Alternative

This subsection will describe the general content and requirements of the performance monitoring and assessment program for the recommended alternative. Precise locations for the actual monitoring equipment will not be able to be provided prior to completion of the final design.

Evaluation of the Effectiveness of the ITS (35 pages)

This section will present a historical overview of the ITS, the ITS configuration, design, and storage capacity available water balance data, analysis of ITS water balance, and evaluation of system efficiency.

Data Evaluation (100-150 pages)

This section will present the data, in summary format, which was evaluated in support of designing the field sampling plan. The data which is expected to be evaluated includes the RCRA ground water monitoring data, Phase I RFI/RI data, historical data, etc. This section will include a summary of the OU 4

previous investigations with the purpose of identifying data gaps needed to complete a ROD.

Data Quality Objectives (20 pages)

This section will define the OU 4 data-gaps and provide a rationale for the data quality objectives for subsequent characterization.

Field Sampling Plan (200 pages)

This section will present the methodologies utilized for supporting "plume delineation" associated with the alluvial ground water system and bedrock ground water system. It will include the standard requirements for collecting ground water samples, possible pumping tests, tracer tests, analytical methodologies, etc.

Baseline Risk Assessment Work Plan (80 pages)

This section will include the standard BRA WP requirements for a complete BRA. However, the BRA WP will be for the HHRA and not the ecology.

Quality Assurance/Quality Control (20 pages)

Standard QA/QC section required for all field activities.

PART V

D&D of Building 788

This section will describe work needed to close the two RCRA units in B788, decontaminate the structure if necessary, and demolish the structure. Support structures such as the clarifier tank and cement silos are included in the effort. The potential for decontaminating the structure to allow disposal of the rubble as non-hazardous waste will be included as appropriate

Note: The number of pages are only an estimate and do not include figures, tables, graphs, charts, etc.

Appendix A - Analytical Data

Appendix B - Applicable or Relevant and Appropriate Requirements

Chemical Specific Requirements

Location Specific Requirements

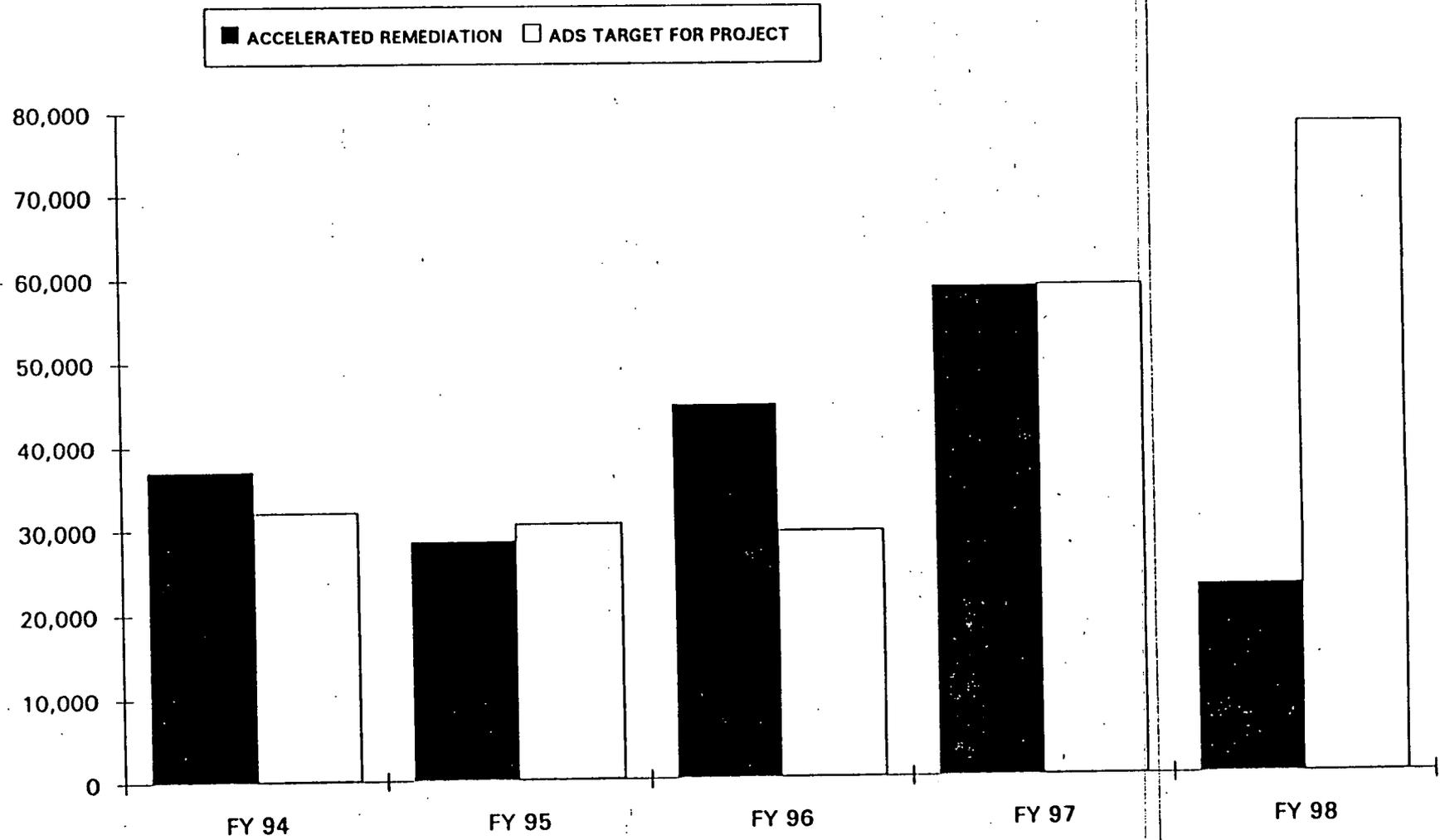
Action Specific Requirements

Appendix C - Toxicological Profiles for the Contaminants of Concern
Appendix D - Risk Analysis Calculations (selected remedy)
Appendix E - Design Sketches (enhanced conceptual)
Appendix F - Outline Specifications
Appendix G - Cost Estimate Details
Appendix H - Performance Monitoring and Assessment Conceptual Plan
Appendix I - Reserved for supplemental information on potential environmental impacts
Attachment 1 - Combined IM/IRA and NEPA Responsiveness Summary (Final Only)

List of Tables/Figures
List of Acronyms and Abbreviations

September 14, 1993
4:00 P. M.

OU-4 ACCELERATED REMEDIATION



OU-4 ACCELERATED REMEDIATION					
COST COMPARISON (\$M)					
	FY 94	FY 95	FY 96	FY 97	FY 98
ACCELERATED REMEDIATION	37,020	28,552	44,739	58,761	22,528
ADS TARGET FOR PROJECT	32,000	30,500	29,500	59,000	78,400
D&D COSTS FOR OU-4 ARE INCLUDED					
CONSTRUCTION STARTS FY 95					

ACTIVITY	FY94	FY95	FY96	FY97	FY98	FY99
ON SITE H2O	4,100	13,000	14,315	6,935	6,663	6,535
OFF SITDE H2O	10,000	25,200	10,600	0	0	0
OU-1 IM/IRA	1,580	1,227	1,068	0	0	0
OU-2 IM/IRA *	2,274	2,328	1,565	1,687	398	0
OU-6 IM/IRA	2,394	3,920	2,920	3,420	3,920	1,920
OU-8	2,679	640	2,291	6,334	26	653
OU-9	2,747	5,496	6,210	11,024	6,703	12,693
OU-10	2,019	1,633	207	1,127	1,276	356
OU-12	2,021	0	0	2,463	1,094	1,190
OU-13	2,035	0	0	0	8,449	1,193
OU-14	2,786	0	0	1,646	2,910	95
O/IRAP **	1,363	11,740	29,201	2,766	0	0
INTEGRATED OU'S TOTAL	15,650	19,509	37,909	25,360	20,458	16,180
SITEWIDE TREATABILITY	3,126	4,344	4,444	4,539	3,093	0
MOBIL LAB	1,991	0	0	0	0	0
FIELD LAB	0	1,593	762	762	762	762
D&D	500	16,100	16,523	16,548	17,044	17,446
TOTAL	57,265	106,730	128,015	84,611	72,796	59,023
* SOIL VAPOR EXTRATION EXCLUDED						
** INCLUDES ACCELLERATED CLEANUP						