

20: Dale Hedges
MS 62355
HMLP

See pocket 12 for
encl.

OUTGOING LTR. NO.
30568 R1
INCOMING LTR. NO.

ACTION

REPLY DUE

CIST

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Gimera, R.J.

Graham, R.S.

Holmes, R.E.

Knight, R.E.

Larson, M.P.

Levenson, P.G.

Reed, R.J.

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Rockwell
International

86 JUN -9 P12:59

May 14, 1986

In reply, refer to letter 30568, R1

WM Record File

101

WM Project

10

Docket No.

PDR

LPDR

Distribution:

Hedges

REB

(Return to WM, 623-SS)

Lynehan

Hildenbrand

Mr. R. D. Larson, Director
Procurement Division
Department of Energy
Richland Operations Office
Richland, Washington 99352

Dear Mr. Larson:

BASALT WASTE ISOLATION PROJECT WORK EVALUATION
(Contract DE-AC06-77RL01030)

From: R. Cook, NRC

Reference: Letter, May 1, 1986, R. D. Larson to General Manager,
Rockwell Hanford Operations, same subject

Rockwell Hanford Operations (Rockwell) has completed the initial activities necessary to comply with the direction provided in the reference letter. Specifically, all project activities at the work package level have been reviewed for applicability in the general Stop Work Order (SWO) as directed. The Rockwell SWO of Enclosure 1 to this letter has been prepared to promulgate the actions directed by the reference letter.

Enclosure 2 contains a Plan of Action (POA). This POA has been defined with specific tasks, priorities and scheduling to be incorporated in two parts as follows:

Part A - Work Stoppage Process - To define the management of a listing of work packages excepted from the SWO using the six criteria of the referenced letter, and a listing of work package subject to stoppage. The details provide summary justification for the exceptions and were written to address the instruction in the reference letter as modified by verbal direction given to Mr. R. J. Gimera by Mr. O. L. Olson on May 6, 1986.

Part A, the Work Stoppage Process, addresses two separate areas of management. The first of these is executing the SWO as directed. This includes the orderly shutdown of all work, whether performed by Rockwell or by other contractors and subcontractors. The second area is the management of excepted work. The Work Stoppage Process will assure that any work excepted from the SWO is properly controlled to minimize management risk and thereby provide the requisite level of quality in the work.

8607010201 860514
PDR WASTE
WM-10 PDR

1859

BCC 514

DATE 5/14/86
34-4000-117 (1-85)



Rockwell
International

*rec'd 6/9/86 with
letter of 5/14/86 to
R.D. Larson, Richland,
Washington 101*

Pocket 12

Mr. R. D. Larson
Page 2
May 14, 1986

Part B - Recovery Process - To define the management of a recovery process for work packages subject to stoppage. The recovery process will reflect the implementation of the necessary management and technical prerequisites stated in the SWO for the work packages stopped to support their re-instatement to active status. These same prerequisites apply to the early finalization review of the list of exempt work packages.

Enclosure 3 contains a summary of the work package activities stopped and those to continue, as well as all of the Work Analysis Sheets upon which the summary is based.

Enclosure 4 contains a list of contractors and work packages recommended to be stopped in response to the SWO.

Rockwell is now proceeding with this action plan, and completion of the shutdown of activities at Rockwell and the other project participants is a primary near-term objective.

The reference letter requested estimates of the cost and schedule impacts of the SWO. Due to the broad nature of the SWO, no such estimates can be made at this time. The planning functions of the restart effort of Enclosure 2 will produce these estimates for submittal to the Department of Energy-Richland Operations Office by July 18, 1986. These cost and schedule estimates will then be used in reconciliation to the Work Package Authorization Summary (WPAS). Two key milestones of the replanning and budgeting process will be preserved. These milestones are "Issue Site Characterization Plan to Public" during December 1986, and "Start Exploratory Shaft Construction," May 1, 1987.

The effects of this general SWO are project-wide. In the near-term, virtually every project activity will be affected by the recovery process in Part B of Enclosure 2. Enclosure 2 defines the activities needed to re-start work as well as those activities necessary to demonstrate that on-going work results will be acceptable. Completion of the final actions of the process will be the subject of reviews to ensure requisite level of quality in the work and traceability to approved requirements.



Rockwell
International

Mr. R. D. Larson

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May 14, 1986

In summary, this response defines the work activities which will be stopped and those that will continue for all BWIP contractors. It also describes the recovery process for those stopped-work activities. Rockwell is committed to complete all work activity prerequisites necessary to begin site characterization activities on the schedules defined in the fiscal year (FY) 1988 WPAS submission. For those site characterization activities scheduled to begin at the beginning of FY 1987, all prerequisites will be in place by September 30, 1986.

Please contact me or Mr. L. R. Fitch (6-6846) should you have any questions on this matter.

Very truly yours,

P. G. Lorenzin
Vice President and General Manager

PGL/WGK/cch

Enclosures

cc:	J. H. Anttonen	- DOE-RL
	E. S. Goldberg	- DOE-RL
	O. L. Olson	- DOE-RL
	R. P. Saget	- DOE-RL
	J. P. Knight	- DOE-HQ
	R. Stein	- DOE-HQ

Enclosure 1

BASALT WASTE ISOLATION PROJECT

ROCKWELL HANFORD OPERATIONS

STOP WORK ORDER

STOP WORK ORDER (SWO)

SWO Number

BSWO-86-004

Page 1 of 2

Applicable Area/Activity/Location STOP all Basalt Waste Isolation Project (BWIP) work activities that are categorized by WBS Number under the STOP column of the attached STOP WORK ANALYSIS SHEETS (Attachment 1) in accordance with the orderly shutdown provisions of the Rockwell Plan of Action (POA) described in Part A (Attachment 2).

Existing Condition Recent Department of Energy - Richland Operations Office (DOE-RL) and Rockwell assessments of the BWIP's ongoing work have disclosed that management and technical control systems do not appropriately provide the means to plan, direct and control project activities.

R. T. Johnson
Manager, BWIP Quality Assurance

5/13/86
Date

CORRECTIVE ACTION

Assess each work activity affected by this Stop Work Order (SWO) and identify the necessary management and technical prerequisites that must be in place to satisfactorily support each activity. Such prerequisites must include such considerations as:

- 1) management and technical procedures to control the work
- 2) quality assurance programs and procedures to control the work
- 3) approved requirements traceable to project needs with appropriate performance allocation
- 4) personnel training and qualification
- 5) equipment/facility records, checkout, qualification and certification
- 6) assessment of impact of open deficiencies on work and resolution of deficiencies which impact work to be started.

Receipt Acknowledged

L. R. P. U. C. H.
Director, BWIP

5/13/86
Date

Released: Corrective Action has been verified and stop work order lifted. Work identified on this SWO may proceed.

R. T. Johnson

Manager, BWIP Quality Assurance

Date

CORRECTIVE ACTION

(continued)

Develop controls to successfully manage a Recovery Process that reflects documented implementation of the necessary management and technical prerequisite considerations previously enumerated for each work package stopped, to support its re-instatement to active status. Additionally, apply these same prerequisites to the exempt work packages also identified in the STOP WORK ANALYSIS sheets.

Enclosure 2

BASALT WASTE ISOLATION PROJECT

**PLAN OF ACTION
TO
RESTART PROJECT ACTIVITY**

PLAN OF ACTION

CONTENTS

PREFACE

PART A - WORK STOPPAGE PROCESS

PART B - RECOVERY PROCESS

PREFACE

This Plan of Action (POA) is in response to the Department of Energy letter dated May 1, 1986. The letter directs the execution of a general Stop Work Order (SWO).

This POA has been defined with specific tasks, priorities and scheduling to be incorporated in two parts as follows:

Part A - To define the management of a listing of work packages excepted from the SWO using the six criteria, and a listing of work packages subject to stoppage. The details provide summary justification for the exceptions and were written to address the instruction in the reference letter as modified by verbal direction given to Mr. R. J. Gimera by Mr. O. L. Olson on May 6, 1986.

Within Part A, the exempt work packages will first be subject to a finalization review to determine the adequacy of quality and therefore possibly be subject to the recovery process. The stopped work packages are to be issued through appropriate contractual channels for orderly stoppage of work by the individual contractors.

Part B - To define the management of a recovery process for work packages subject to stoppage.

The recovery process in Part B will reflect the implementation of the necessary management and technical prerequisites stated in the SWO for the work packages stopped to support their re-instatement to active status. These same prerequisites apply to the above finalization review of the list of exempt work packages.

Enclosure 2.

PLAN OF ACTION

PART A

WORK STOPPAGE PROCESS

PART A
TABLE OF CONTENTS

I INTRODUCTION

II STOPPING OUTGOING WORK

III MANAGEMENT ASSESSMENT OF WORK EXCEPTED FROM THE SWO

IV PLAN AND SCHEDULE

FIGURES

PART A - WORK STOPPAGE PROCESS

I. INTRODUCTION

This process describes those actions necessary to stop all ongoing work in an orderly manner so that adverse cost and schedule impact is minimized. In addition, this process details the activities that comprise the management assessment of all of the work packages excluded from the general Stop Work Order (SWO).

The completion of this process thus results in all affected work stopping, and a complete documented management assessment of the excepted work in the project records. These records are for later use when the excepted work is integrated into the recovery process for the balance of the work that was stopped earlier.

II. STOPPING OUTGOING WORK

There are two categories of work to be stopped. There are those work packages performed by Rockwell Hanford Operations (Rockwell) personnel, and those work packages performed by contractors and subcontractors. Work stoppages will be coordinated and monitored by a single individual, the Work Stoppage Coordinator. This individual will be supported by a specialist in the discipline of contract administration for the stoppage of work performed by contractors and subcontractors. This second individual is the Contract Coordinator.

The Work Stoppage Coordinator will be selected by the Project Director. The Work Stoppage Coordinator will be responsible for assuring that all work performed by Rockwell is shut down in a controlled manner and that the management information system being developed under Section A.III below contains the necessary data on each work package stopped.

The Contract Coordinator has been selected and will report for support to the Basalt Waste Isolation Project (BWIP) on May 14, 1986. This individual will be the focus for all communications between Rockwell BWIP personnel and the project participants under contract. The Contract Coordinator will assure that consistent communications occur, and that the subcontractors are shut down in a controlled manner with minimum impact. The Contract Coordinator will serve as long as necessary to resolve any contract administration problems that arise during the work stoppage, as well as to support the restart effort.

The Work Stoppage Coordinator will prepare a letter for the Project Director which will direct Rockwell management to commence or complete the shutdown of all work packages performed by Rockwell personnel. This action is projected for the end of the week beginning May 12, 1986. In parallel with this activity, the Contract Coordinator will finalize the instructions for Rockwell management to issue stop work directives to all subcontractors affected by the SWO. These instructions will

Enclosure 2

assure that complete, consistent directions are issued by Rockwell for its subcontractors and that Department of Energy-Richland Operations Office (DOE-RL) receives adequate input for its directives to the direct-funded contractors. These instructions will become a Project Procedure to assure consistency in case future contractor work stoppages are identified.

III. MANAGEMENT ASSESSMENT OF WORK EXCEPTED FROM THE SWO

There is the need to capture a large body of data relative to each work package excepted from the general SWO. This data will provide the objective evidence that the six categories of work to be excepted were properly and consistently interpreted and applied during the period immediately following the receipt of the May 1, 1986, general SWO letter. This data will prove valuable in the months to come when the products from these excepted work packages are to be incorporated into the project activities stopped and restarted. This assessment will also address any miscellaneous open items from the initial review.

The SWO Coordinator will assess the work packages excepted from the SWO utilizing additional personnel. The first of these is the SWO Administrator who will be selected early in the week beginning May 12, 1986. The SWO Administrator will establish and maintain a data base on all BWIP work packages and contractors so that SWO status as well as other information is immediately available to project personnel.

The SWO Coordinator will be supported by a team to finalize the work package review performed by the various Rockwell managers during early May 1986. This team will contact the cognizant manager for each of these work packages and have the initial review revised as necessary and entered into the data base described above. Once this task is complete, this team will be disbanded.

The major task of this portion of Part A of the Action Plan is the management assessment of all work packages excepted from the SWO. One or more assessment teams will be established for this task, and the Assessment Team Leader will prepare a Project Procedure for performing and documenting the assessments. Then each work package will be reviewed by the cognizant manager and an assessment team utilizing the procedure and a formal list of required management controls and other prerequisites. As a result, each excepted work package will proceed under adequate control, with proper resources of personnel and equipment, or management corrective action will be mandated while the work continues. The reports of this effort will become part of the project records, and will be the objective evidence that the excepted work packages were properly managed.

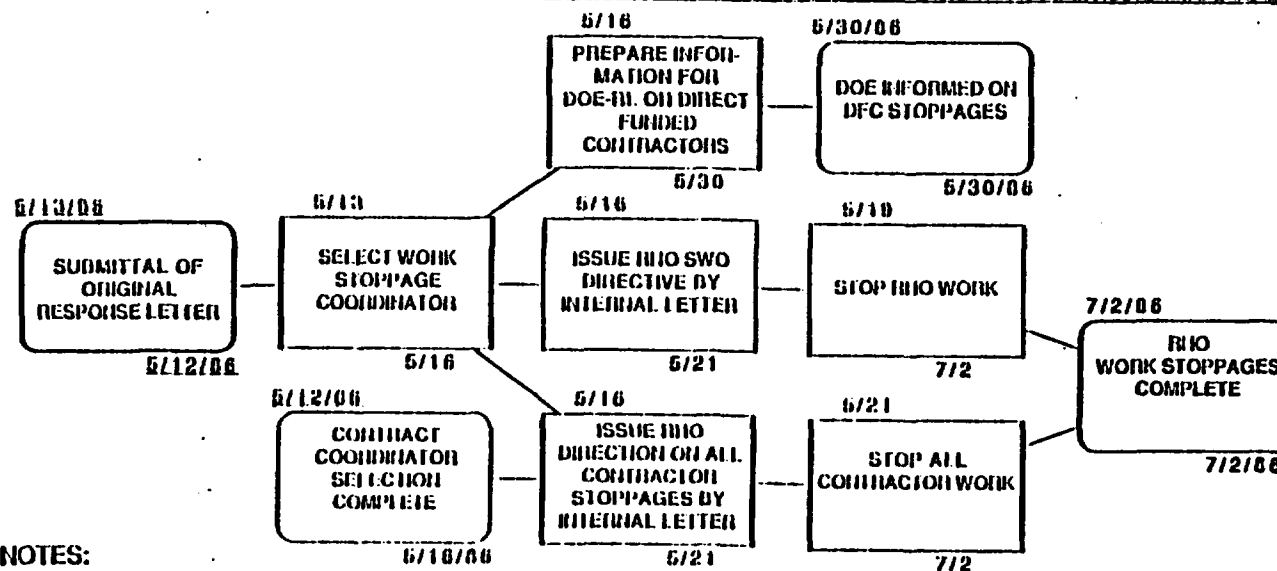
Thus, the result of this management assessment of excepted work will be to allow it to continue as is, to allow it to continue while prerequisites are prepared in parallel, or to stop that work.

IV. PLAN AND SCHEDULE

Initial schedules for the two sections of Part A of this Action Plan are presented as schedule charts and bar charts on the following pages. These are the original schedule revisions and will be updated and revised as necessary as the action plan is implemented.

SCHEDULE CHART - PLAN OF ACTION A

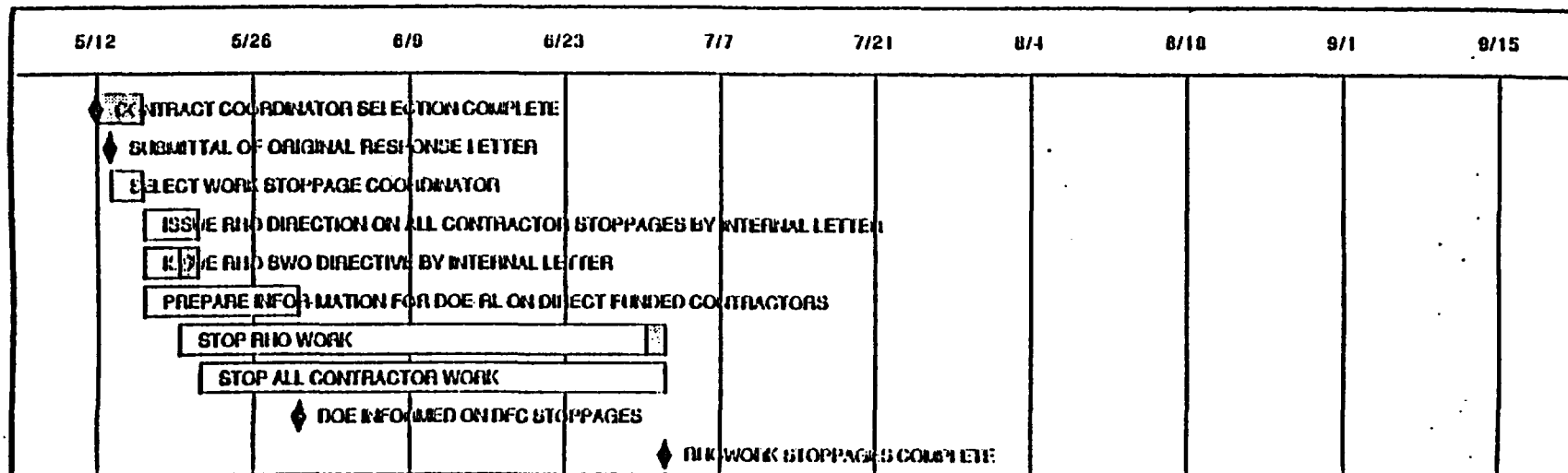
PART ONE - STOPPING ONGOING WORK



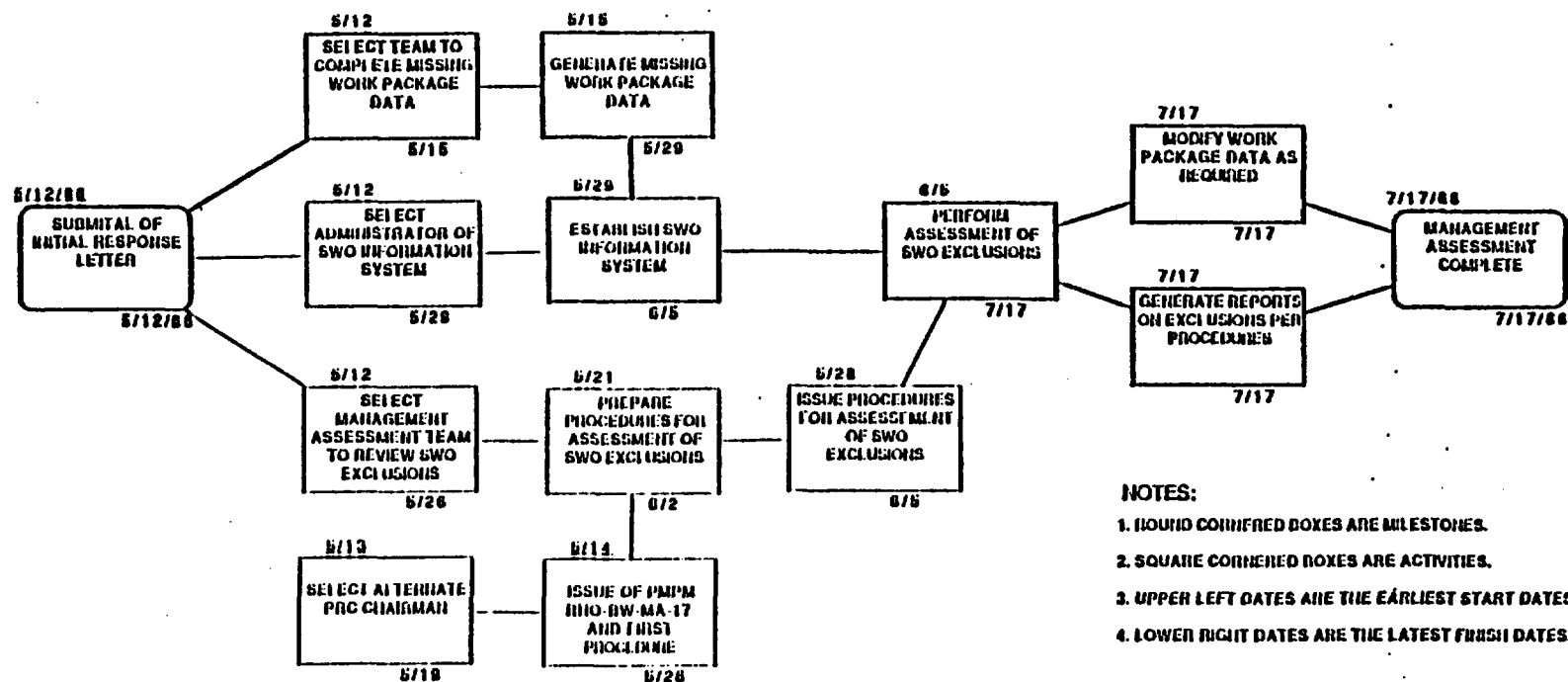
NOTES:

1. ROUND CORNERED BOXES ARE MILESTONES.
2. SQUARE CORNERED BOXES ARE ACTIVITIES.
3. UPPER LEFT DATES ARE THE EARLIEST START DATES.
4. LOWER RIGHT DATES ARE THE LATEST FINISH DATES.

WGK
5/13/86



SCHEDULE CHART - PLAN OF ACTION A PART TWO - ASSESSMENT OF WORK



WOK
8/11/88

[illegible]

PLAN OF ACTION

PART B
RECOVERY PROCESS

PART B

TABLE OF CONTENTS

- I INTRODUCTION
- II RECOVERY PURPOSE
- III APPROACH TO THE RECOVERY PROCESS
- IV PROCESS ACTIVITIES
- V RESPONSIBILITIES
- VI SCHEDULE
- VII ADMINISTRATIVE

FIGURES

- 1. BWIP STOP-WORK RECOVERY PROCESS
- 2. SPECIAL SUPPORT PROCESS TO EXPLORATORY SHAFT

I. RECOVERY PROCESS PURPOSE

The purpose of the recovery process is to plan and conduct those activities that produce a definition of how all technical work is to be performed to fulfill the Basalt Waste Isolation Project (BWIP) mission. Further, it is to define how that technical work is to be directed through supporting control systems that result in effective management that demonstrates compliance with the BWIP quality assurance requirements.

II. INTRODUCTION

The basis on which this recovery plan has been received is that technical conclusions reached at the end of the formal site characterization phase will be acceptable only if: (a) all technical work has been well defined a priori and established as credible for the intended objective, and (b) the conduct of the technical work was controlled relative to the approved plans as well as to all applicable management directives and quality assurance requirements.

A recovery process that satisfies these two conditions has been developed for those work packages subject to stoppage. This process also satisfies the prerequisites of the Stop Work Order (SWO) which must be in place to support excepted work. As such, this process becomes the vehicle for correcting deficiencies in the conduct of all work across the project, stopped work as well as excepted work. In response to the need for an aggressive schedule to return to normal operations, the process has been designed for concurrent preparation of project documents and procedures. As important elements to the complete recovery process effort reach completion, those existing procedures controlling the excepted work packages will be reviewed for either upgrading or be retired and replaced.

The following paragraphs describe this approach more fully and identify the activities in the forthcoming work plan.

III. APPROACH TO THE RECOVERY PROCESS

In order for the project to recover as quickly as possible, a concurrency approach has been developed that permits the elements of both the technical effort as well as the supporting management and administrative systems to be defined almost simultaneously. This approach reflects direct involvement of the Project Director and his immediate staff in selecting how the work in each major area and sub-area of the project is to be performed. An experienced facilitator in management and technical methods for complex projects will direct a three or four person group in developing process flows -- similar to the logic network -- that define how a function is to be performed. The term function is used here to mean the project element, such as system verification, or design of the waste package. Each process flow developed will portray, as an example, how quality assurance will be performed by all project participants, as well as the subfunctions to be performed (i.e., audits, surveillances, inspections). This definition will be developed to lower levels of detail until the conduct of the complete project is included.

Enclosure 2

This approach has been developed to meet the following recovery process goals:

- o Thoroughness. Lower level documentation remains constrained by the guidance established in higher tiers. Further, no essential function is overlooked, and all functions are tailored to the specific role allocated by the higher level process.
- o Ensures Management Control. A high level of visibility and clarity is maintained on how every facet of the project is conducted with a minimum of supporting explanatory text.
- o The method is familiar. While orientation briefings and written ground rules will be provided to all participants to assure consistency, this method is very similar to that used to develop strategies for issue resolution, as well as that used to develop the current activity logics.
- o Aggressive Schedule. It permits documentation to be developed concurrently by simply adding explanatory text to the process flows. Lower level tiers of documents, such as procedures, need not await the publication of the parent tier of documents, provided a process flow has been approved for the lower level document and consistency is maintained with higher level process flows. All work is to be cross-checked when the completed documents become available and are reconciled.

This approach is shown in Figure 1. Following the development of the project documentation, the Basalt Waste Isolation Division of the DOE-RL, the integrating contractor, and each participating contractor will prepare implementing procedural documentation to direct their personnel in carrying out their assigned role.

As the work planning and control process flows are completed and the corresponding documents are being developed, the detailed activity logics developed for the Work Package Authorization Summary (WPAS) will be reconciled with the approved guidance represented by the process flows. Upon completion of reconciliation, realistic estimates of both technical and programmatic risk can be made of essential work that may be curtailed to match directed budget and milestone limitations.

As the figure also shows, the total complement of project documentation defining the project's technical work, together with the tiers of policy and procedural documentation that describe how the work will be controlled, constitute the prerequisites to resuming normal project operations. Each work area, by work package, will be examined for compliance with predetermined work resumption criteria. Resumption status will be tracked and reported.

Enclosure 2

Special Support Areas. Part A of this Plan has described how the work packages excepted from this SWO will be managed and controlled in the interim while the primary recovery work is being completed. This excepted work includes one of the principal WPAS directives, namely the release of the Site Characterization Plan (SCP) in December. The other is the preservation of the May 1987 date for start of construction of the exploratory shaft. To be responsive to both of these milestones and still maintain an acceptable level of management control and quality, a special provision has been developed in the recovery plan by way of interim procedures.

For only those technical and writing tasks which must be completed before release of the SCP or start of Exploratory Shaft (ES) construction, interim procedures will be developed without the top-level guidance defined through the top-down process flows described above. Figure 2 depicts a process that depends upon judging what management and control support will be needed and will be adequate for the specific activities involved. Procedure-level process flows will still be required on which to base the text of the procedure. The extent to which completeness and procedural compatibility is traded against support of these milestones will be the responsibility of Project Management in concurrence with DOE-RL.

Retirement of Interim Documentation. The Process Activities Section includes a description of how existing Project and Rockwell Hanford Operations (Rockwell) documentation will be utilized, as much as possible, to avoid unnecessary rewriting. Should any interim documentation created to support those activities excepted from this SWO, or created to preserve the SCP or ES schedule prove to be unacceptable relative to the work-resumption criteria or the ground rules of this plan, they will be rescinded and replaced.

The Issue Resolution and Strategy Development Process. One of the strengths of this Recovery approach is its flexibility to accommodate variations in technical or management method desired in the conduct of work. This is exemplified by the issue resolution strategies currently under development. As these strategies are completed, they will be utilized to depict the "process" to be utilized in their respective technical subject areas. Lower-level processes may have to be defined to reach the point where needed technical procedures are identified.

Process Activities. The remaining sections contain general descriptions of the tasks to be conducted. The specific tasks remain to be identified and fully defined by the assigned staff member.

Qualification and Training. An important element of this Recovery Plan is the enhancement of understanding and communication of directives to project personnel through a well structured and aggressively implemented training program. This Plan involves three phases:

- o A basic orientation in system management principles as applied to the project.

- o Specific instruction in the conduct of the BWIP for the duration of the stop work period, particularly with respect to the performance of activities described in this Plan.
- o Implementation of the BWIP Qualification and Training Program as one of the essential project functions for which process flows and documentation will be developed as part of this Plan's activities.

Ground Rules for Development of the Process Flows. To contain a description of the step-by-step method to be used in the development of all process flows. The method is depicted in Figure 1.

Compatibility Integration of Process Flows. Process flows will be reconciled at each level before proceeding to the next level of development. Reconciliation will be accomplished by the Facilitators. Policy differences will be resolved by the affected staff representatives of the Director.

Packaging of Process Flows Into Specific Documentation. The BWIP Hierarchy will be reviewed and revised based upon the packaging advantages and options selected from the resulting groupings that emerge from the process flows as well as the Documentation System process flows developed in the Information Management area.

Reconciliation With the Work Breakdown Structure, activity logics, and WPAS guidance. To contain a description of the ground rules for reconciliation.

Development of Work-Resumption Criteria. A criterion will be defined for use in judging the readiness of work package for transfer to active status.

Determination of Acceptability of Site Investigation Phase Data. Following the resumption of all stopped work, a review will be undertaken of that portion of existing data expected to be utilized in any of the site suitability work or in the design. The purpose of the review will be to determine if the data conforms to the management control and quality standards established in the Recovery Process. A specific plan of action will be prepared at the time for that work.

V. RESPONSIBILITIES

Organization.

To be developed.

Responsibilities.

To be finalized with complete definition and relationships identified.

Name Assignments.

Individuals for the role of facilitators to be selected.

VI. SCHEDULE

A detailed schedule will be prepared to define the Plan of Action tasks.

VII. ADMINISTRATIVE

Work Authorization Control and Contracting Actions

Selection of cost accounts will be made to authorize and collect costs for the recovery period.

Recovery Activities Charge Codes.

Cost Account charge codes to be defined as noted above.
Recovery activity costs will be accumulated.

Emergency Procurement of Recovery Program Support Services.

The contract administrator for the recovery period is to define any emergency measures.

Recovery Activity Statusing and Reporting.

A description of the reporting on all activity is to be developed.

Recovery Action Item Tracking.

A tracking method to evaluate program will be formulated for all action items developed during the recovery period.

BWIP STOP-WORK RECOVERY PROCESS

DEVELOPMENT OF PROCESS FLOWS WILL DEFINE HOW EACH FUNCTION IS TO BE PERFORMED. THIS IS DONE AS FOLLOWS:

CONFIRM THAT ALL TOP-LEVEL TECHNICAL & MANAGEMENT FUNCTIONS ESSENTIAL TO THE PROJECT HAVE BEEN IDENTIFIED.

CONFIRM THAT ALL REGULATIONS, DIRECTIVES AND CODES HAVE BEEN IDENTIFIED THAT CONSTRAIN HOW THE PROJECT FUNCTIONS ARE TO BE PERFORMED.

DEVELOP THE PROCESS THAT CLEARLY DEFINES HOW EACH FUNCTION IS TO BE PERFORMED.
to provide special support to preserve start date of ES construction.

DEVELOP PROCESS FLOWS FOR EACH SUBFUNCTION IDENTIFIED AS ESSENTIAL TO THE PRECEDING PROCESS.

COMPARE PROCESS FLOWS TO ELIMINATE INCOMPATIBILITIES.

CONCURRENT PREPARATION OF PROJECT DOCUMENTATION IS CONDUCTED USING GUIDANCE IN PROCESS FLOWS

PROJECT GUIDANCE

examples:

- Project Plan
- Project Mgt Plan
- System Eng Mgt Plan
- Mgt & Integration Plan
- Design & Develop Plan

SITE-SPECIFIC REQUIREMENTS

examples:

- BOARD
- MGDS RMTSDOC

PROJECT WORK PLANNING & CONTROL DOCUMENTS

examples:

- Repository engineering
- Waste plg engineering
- Site investigations
- Performance assessment
- Test facility management
- Interficial interaction
- Quality Assurance Plan

PROJECT IMPLEMENTING PROCEDURES

examples:

- Facility & test equipment and operating procedures
- Test & analysis performance procedures
- Project management procedures

RECONCILE FINISHED DOCUMENTS

PREPARE INTEGRATING & PARTICIPATING CONTRACTORS' MANAGEMENT PLANS AND IMPLEMENTING PROCEDURES FROM GUIDANCE IN PROJECT DOCUMENTATION

POSITIVE MANAGEMENT CONTROL

VERIFY TECHNICAL CREDIBILITY & MANAGEMENT CONTROL ADEQUACY PRIOR TO WORK RESUMPTION

RECONCILE WITH ACTIVITY LOGS, WPAS MILESTONES, & BUDGET

OBTAIN APPROVAL & BASELINE REDEFINED PROJECT

ESTABLISH RESTART CRITERIA & PREPAREDNESS REVIEW PROCESS

CONDUCT PEER REVIEWS FOR TECHNICAL ADEQUACY & PREPAREDNESS REVIEWS FOR MANAGEMENT CONTROL

RESUMED WORK

WORK STOPPAGE PROCESS

SPECIAL SUPPORT TO PRESERVE START OF ES CONSTRUCTION

RECOVERY PROCESS

ONGOING WORK EXCEPTED FROM SWO

REVIEW OF EXISTING PROCEDURES TO SUPPORT EXCEPTED WORK

Figure 1 - Stop-Work Recovery Process

SPECIAL SUPPORT PROCESS TO PRESERVE START DATE OF ES CONSTRUCTION

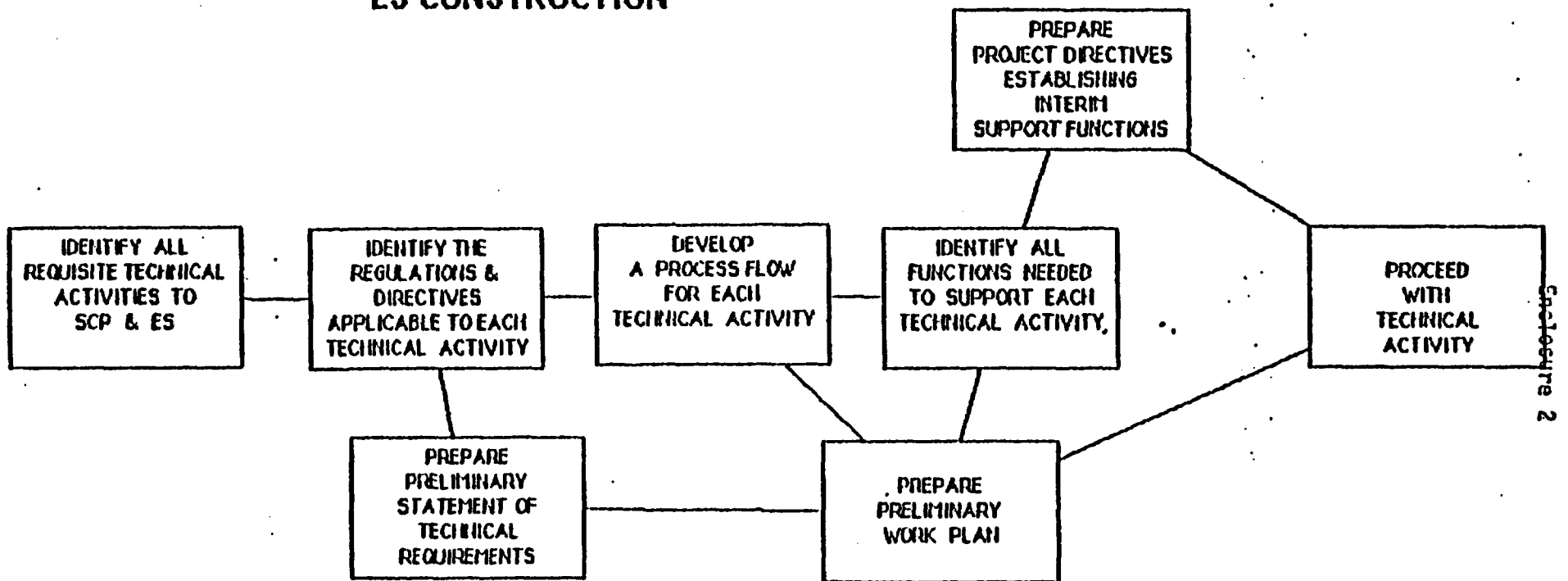


Figure 2 - Special Support Process to Exploratory Shaft

TABLE OF PROJECT ACTIVITIES
BY WORK PACKAGESUMMARY TABLE

Work Packages to be Stopped	329
Work Packages Excepted from SWO by Justification*:	
1. Data Gathering Activities	20
2. Project Management Program Support Activities	44
3. Personnel Safety and Maintenance Activities	61
4. Administrative Activities	118
5. SCP Preparation Activities	46
6. Essential Activities/Imprudent to Stop	61
7. Categories Require Clarification	141
Total Work Packages Excepted from SWO	501
<u>Total Project Work Packages</u>	830

*Complete definitions of the six justifications for excluding work from the general Stop Work Order are given on Pages 1 and 2 of a letter dated May 1, 1986, from R. D. Larson to General Manager, Rockwell Hanford Operations titled, "Basalt Waste Isolation Project Work Evaluation."

STOP WORK ANALYSIS

J. Graham-NE
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/TW12		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L1E4A	Preclosure Safety Analysis						
	a) Develop Preclosure Safety Assessment methodology for the Site Characterization Plan (SCP).	X		5		X	Part of Site Characterization Plan preparation activities. Licensing Decision Memorandum Procedure.
	b) Provide Q-List for SCP and SCP-CDR.	X		5		X	Part of Site Characterization Plan preparation activities. Q-List Procedure to be prepared by Engineering Department.
	c) Provide design guidance through Preclosure Performance Allocation (being done for Item b)	X		5		X	Part of Site Characterization Plan preparation activities. Issue Resolution Procedure (Denver Process).
	d) Preclosure Safety Assessment Issue Resolution Process for SCP.	X		5		X	Part of Site Characterization Plan preparation activities. Issue Resolution Procedure (Denver Process).
	e) Westinghouse Hanford Company Energy Assessment and Failure Mode and Effects Analysis Project.	X		3		X	Part of existing safety program. Approved Westinghouse Hanford Company Quality Assurance Program required by Statement of Work.
	f) Pacific Northwest Laboratory's Accident Statistics Report.	X		3		X	Part of existing safety program. Approved Pacific Northwest Laboratory Quality Assurance Program required by Statement of Work.
	g) Identify spectrum of possible accident initiators (being done for Items b and d).	X		5		X	Part of Site Characterization Plan preparation activities. Issue Resolution Procedure (Denver Process).

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L1A1A	Business Management - Plans, Schedules, Budgets	X		4			X	Administrative activity, specifically exempt
L1C1A	Update Project Plan	X		2			X	Top project planning document upgrade based on DOE-HQ schedule and financial guidance.
L1C1C	Update PMP/SEMP - Issuing PMP revision based on DOE-RL comments and PMP Task Force input. - Initiating revision of SEMP/PHP to implement QA requirements. Due to lack of available Rockwell manpower, sub-contractor (BDH) support is required. - Developing and issuing of Project Glossary.	X		2			X	Top project policy documents.
L1C1D	Transition planning/ training support to implement SEHP/PMP, monitor transition process.	X		2			X	Implementation of upgraded management policy.
L1C1E	Prepare Management and Integration Plan.	X		2			X	Planning document for upgraded management system.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L1C1F	Develop Upgraded Management System. Includes: - Stop-work recovery plan development - Developing Project Management Procedures - Developing data prioritization methodology as well as data closure methodology, incorporating into SEMP, and preparing procedures. Subcontractor (BDM) support is required due to lack of Rockwell available manpower. - Developing system verification concept and program plan - Planning QA implementation in lower level documents - Coordinating and integrating development and implementation of project-level management and technical plans - Assist in establishing technical procedures system	X		2		X	Key activities for development and implementation of upgraded management system. Data prioritization and data closure methodology are prerequisites for SCP completion.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL



WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
LICIF, cont.	<ul style="list-style-type: none">- Preparing and issuing Science/Engineering Plan preparation procedure and detailed format guidance- Preparing and issuing "Transmittal of Data & Documentation to BRMC" procedure (formerly "Data Acquisition Package"- Project Hierarchy Revision and reap-approval Preparing explanatory text Issuing as PMP annex- Maintaining higher level project logics					
LICIH	Develop Decision Support System. Includes: <ul style="list-style-type: none">- Developing Life Cycle Cost capability. Sub-contractor (BDM) support is required due to lack of available Rockwell manpower.- Decision analysis method for project- Technical performance measurement- Programmatic risk assessment and mitigation program- Trade Study program- Linkage with future project Management Information Systems	X	2		X	Upgrades decision support system,

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

JUSTIFICATION FOR
EXCEPTION

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12 Y N (1-6) Y N				
L1C1J	Prepare MGDS Requirements Document. Includes: <ul style="list-style-type: none"> - Finalizing general and Repository sections - Initiating Waste Package section - Developing Site section now being reviewed by Site Department - Planning requirements definition efforts for all project functions - Reformatting requirements document to OGR format. Due to lack of available Rockwell manpower, subcontractor (BDM) support is required - Issuing of Information Needs and Data Analysis Document 	X	2		X	Requirements will form basis for future engineering and site activities - under preparation per OGR direction
L1C1K	Assist in development of Science, Engineering, Test Facility Operating, Performance Assessment Plans, etc.	X	2		X	Supports implementation of upgraded management system per SEMP

STOP WORK ANALYSIS


END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/TW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L1C1L	Prepare Baseline System and Subsystem Description Documents. Subcontractor (BDM) support is required due to lack of available Rockwell manpower.		X	2		X	Descriptions of current system/subsystem as required in SEMP AS basis for technical changes.
L1C1H	Administrative/Clerical Support		X	4		X	Administrative activity, specifically exempt
L5C1L	SCP Support		X	5		X	SCP preparation, specifically exempt

STOP WORK ANALYSIS JA THIES

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC BTOPZ CAT ITS/ITW12 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
	Integration Group Cost Accounts					
L1C2A	Disposal System - Internal Interfaces	X	2&5		X	Integrate Internal System Interfaces Among Planning, S.C.P. and other excepted activities, <i>PLANNING/MGT ONLY</i>
L1C2C	Disposal System - External Interfaces	X	4		X	Integrate External Interfaces of BWIP with Hanford Site (e.g. Facility Planning, RRL Protection) and DOE Coordination Groups (e.g. Transportation).
L1C2D	Revising/Operating Science Engineering Plans, etc.	X			X	Work not started. Initial issue of plans under L1C1K.
L1C2E	Maintain Baseline Disposal System Document	X			X	Work not started. Initial issue of BSD..under L1C1L.
L1C2F	Technical Integration Reviews		X 4		X	Review Planning and Other Excepted Documents for Systems Approval.
L1C2B	Trade Studies	X			X	No work planned prior to re-start.
L1C2H	Perform Special Internal Studies and Reviews	X			X	No work planned prior to re-start.
L1C2J	Provide Administrative/ Clerical support		X 4		X	Provide Administrative/Clerical support for excepted activities of Integration Group.

To John Thies

Per your request

cc: W. Heilman

W. Heilman
5/8/86

STOP WORK ANALYSIS *JA THIES*

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP1 Y N	CAT (1-6)	ITS/TWL2 Y N		
L1E1A	Update Performance Assessment Plan, Update as necessary and appropriate.		N	2,5	WI	Planning document for upgraded management system. Also required to support SCP.
L1E1C	Perform three-dimensional analyses of ground water flow concepts.	Y			WI	Not subject to any listed exclusion.
L1E1D	Conduct parametric/uncertainty modeling studies to support Engineered Barriers activities.	Y			WI	DOE reportable milestone of 9/30/86 for report on sensitivity and uncertainty studies for Advanced Waste Package Design will be delayed. Not subject to any listed exclusion.
L1E1E	Assist Site Department in regional groundwater modeling.	Y			WI	Not subject to any listed exclusion.
L1E1F	Parametric modeling studies assists Site Department in analysis of large-scale tests.	Y			WI	Not subject to any listed exclusion.
L1E1G	General Performance Assessment Management.		N	4	WI	Administrative activities; <i>USED TO COLLECT TIME CHARGES ONLY,</i>
L1E2A	Computer code development, including KEYNUC, PCMSTAT, REPSTAT, PORFLO-3D, REPREL, FECTRA-3D.	Y			WI	Not subject to any listed exclusion.
	Computer code documentation including KEYNUC, PCMSTAT, REPSTAT, REPREL, FECTRA-3D, MAGNUM-3D, PATH-3D, PATH-2D, PORMC-SF and major supporting codes.		N	2	WI	Code documentation corrects quality assurance deficiencies and supports adequate implementation of quality assurance program including code specific procedures. Emphasis shifts to software control implementation support.

STOP WORK ANALYSIS

JA TIES
 END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L1E2A (Con't)	Installation of codes from Prime computers to LANL CRAY computers.		N	2	WI		Needed to adequately determine code specific software control procedures on the LANL CRAY computers. Emphasis shifted from implementing tools for analysis to software quality assurance support.
	Continue code maintenance and software quality assurance for performance assessment.		N	2	WI		Activities which are needed to support corrective action.
	Verification of CHAINT	Y			WI		Not subject to any listed exclusion.
	Development of PORFLO-3D	Y			WI		Not subject to any listed exclusion.
L1E2C	Validation plan for CHAINT and MAGNUM-2D.	Y			WI		DOE reportable milestone of 9/26/86 will be delayed. Not subject to any listed exclusion.
L1E3A	Update Performance Assessment reference data source documents for Waste Package and Site subsystems.	Y			WI		DOE reportable milestone of 8/30/86 will be delayed. Not subject to any listed exclusion.
L1E3C	Develop and evaluate methodology for total system performance disruptive scenarios.	Y			WI		Not subject to any listed exclusion.
L4G2A	Provide assistance with parametric/sensitivity analysis of shaft seal performance.	Y			WI		Not subject to any listed exclusion.
L6J17	Review computational briefs for Exploratory Shaft Design Basis Study to determine ground water inflows and methane release.	Y			WI		Work stopped under separate DOE-RL directive to stop all peer review activities until peer review procedures are approved and implemented.

STOP WORK ANALYSIS

JATHIES

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP2	CAT	ITS/ITW12		
		Y	N	(1-6)	Y	N
L1A3A	Support HYDROCOIN benchmarking study and attend meeting in Tokyo, May 26-30, 1986.		N	* 6	WI	Participation in international HYDROCOIN code review group required by DOE/HQ. * Special exclusion assumed.
	Technical position paper on discrete fracture flow.	Y			WI	DOE reportable milestone of 6/30/86 will be delayed. Not subject to any listed exclusion.

STOP WORK ANALYSIS

JA. TAMES

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW/1		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
LICIP	This work package covers the planning and administration of both the manual and automated resources used on the BWIP. For the remainder of FY86, the activities of this work package are dedicated to the production of the following plans:							
	Information Resource Mgmt. Plan	X		2			X	These plans are essential to the implementation of improved management programs and in various parts directly related to implementation of quality assurance requirements.
	Documentation System Plan	X		2			X	
	Data Management Plan	X		2	X			
	Information Process Management Plan	X		2			X	
	Software Management Plan	X		2	X			
	Computer Systems and Telecommunications Plan	X		2			X	
	IRM Facilities Plan	X		2			X	

Revised 5/16/86
 JEN TOW
 R. M. M.

STOP WORK ANALYSIS

RE MAY
 END FUNCTION MGT APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT 11S/11W12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
LIC3A	<u>CONFIGURATION MANAGEMENT</u>					
	- DESIGN REVIEW	X		2	X	GOVERNING PROCEDURE - QAPP 3-302, "DESIGN REVIEW REQUIREMENTS." SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 MANUAL BY 5/23/86.
	- DOCUMENT REVIEW	X		2	X	GOVERNING PROCEDURE - QAPP 3-301, "TECHNICAL DOCUMENT REVIEW." SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 MANUAL BY 5/23/86.
	- ENGINEERING RELEASE	X		2	N	GOVERNING PROCEDURES - QAPP 3-403, "RECORD OF DESIGN/ FIELD CHANGE PROCESSING," QAPP 6-103 "ENGINEERING ORDER SYSTEM," QAPP 6-104 "SUPPORTING DOCUMENT DESCRIPTION," AND AG 4-204 "CONTROL OF DRAWING ORIGINALS" SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 MANUAL BY 5/23/86, 5/26/86, 5/26/86, AND 5/28/86 RESPECTIVELY.
	- CHANGE CONTROL	X		2	N	GOVERNING PROCEDURE - AG 1-103 "CHANGE PROPOSAL PROCESSING," SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 MANUAL BY 6/2/86.
LTD3A	<u>TECHNICAL SERVICES</u>					
	- DOCUMENT CONTROL	X		2	N	GOVERNING PROCEDURES - QAPP 7-402 "CONTROL OF SUPPLIER GENERATED DOCUMENTS," AG 4-203 "REVIEW COORDINATION OF NON-BWIP ROCKWELL DOCUMENTS" AND QAPP 3-301 "TECHNICAL DOCUMENT REVIEW." SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 BY 6/30/86, 5/16/86, AND 5/23/86 RESPECTIVELY.
	- PROCEDURES ADMINISTRATION	X		2	N	GOVERNING PROCEDURES - QAPP 6-101 "CONTROL AND DISTRIBUTION OF PROJECT PROCEDURES," AND QAPP 6-102 "TECHNICAL PROCEDURE CONTROL." SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 MANUAL BY 5/16/86 AND 5/28/86 RESPECTIVELY.
	- CORRESPONDENCE CONTROL	X		2	N	GOVERNING PROCEDURE - AG 3-201 "PROJECT CORRESPONDENCE CONTROL." SCHEDULED FOR CONVERSION TO THE RHIO-BW-MA-17 MANUAL BY 5/16/86.

STOP WORK ANALYSIS RE MAY

END FUNCTION MGMT APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT		ILS/ILWZ		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N
LIDIA	ADMINISTER BRMC, PUBLIC RELEASE, DATA ENTRY, ARCHIVING	X		2		N
(D11F)	PROCURE MICROFICH READER/ PRINTER					
(D116)	PROCURE HIGH SPEED DUPLICATOR					
LIDIC	ADMINISTRATIVE SUPPORT; MAINTAIN PROCEDURES/DESK INSTRUCTIONS.	X		2		N
LIDID	PUBLIC READING ROOM SUPPORT	X		4		N
LIDIE	PICK-UP AND DELIVERY SERVICE, RHO TRANSPORTATION	X		3		N
LIDIF	PROVIDE EA/SCP MICROFICHED REFERENCES	X		5		N
LIDIG	MAINTENANCE COSTS IN SUPPORT OF GEOTECHNICAL LIBRARY	X		4		N
LIDIJ	MAINTENANCE AND REPAIR TO PURCHASED ADP EQUIPMENT	X		3		N
LIDIJ	MAINTENANCE AND REPAIR TO MICROCOMPUTER EQUIPMENT	X		3		N
LIDIK	CORE PHOTOGRAPHY	X		1		N

CONTROLLED BY RHO-BH-MA-14, 17-101, "RECORDS MGMT SYSTEM" AND RHO-BH-MA-16, 4-101, "CLEARANCE OF DOCUMENTATION FOR EXTERNAL DISTRIBUTION TO PROGRAM PARTICIPANTS. TO BE CONVERTED 5/26/86 AND 5/30/86 RESPECTIVELY, TO THE RHO-BH-MA-17 MANUAL.
(COMPLETED)
(COMPLETED)

PRESENTLY CONTROLLED BY RHO-BH-MA-16, 1-104, "DESK INSTRUCTIONS." TO BE CONVERTED TO RHO-BH-MA-17 BY 5/16/86.

CONTROLLED BY RHO-BH-MA-16, 4-101, "CLEARANCE OF DOCUMENTATION FOR EXTERNAL DISTRIBUTION TO PROGRAM PARTICIPANTS." TO BE CONVERTED TO RHO-BH-MA-17 BY 5/30/86.

SIMPLE CARRIER SERVICE

SIMPLE, REPETITIVE MICROFILMING

WORD ORDER SERVICES

WORD ORDER SERVICES

WORD ORDER SERVICES

WORD ORDER SERVICES (PNL) support to work pkg # L3 F2A (Records Gathering)

THIS WORK PACKAGE PROVIDES PNL SERVICES TO PHOTOGRAPH ALL ROCK CODE WHEN RECEIVED AT CODE STORAGE FACILITY PER LAPP 17-103. THIS WORK PACKAGE WILL ONLY BE USED IF CODE IS GENERATED UNDER ANOTHER WORK PACKAGE IN L3

STOP WORK ANALYSIS

RE MAY

END FUNCTION MGR APPROVAL

WDS WORK		BRIEF WORK		EXC		STOPZ CAT 115/1W12		JUSTIFICATION FOR EXCEPTION
PKG #	DESCRIPTION	Y	N	(1-6)	Y	N		
CONTRACTS								
LIDIA SA-987	CONTRACT SUPPORT IN WRITING RECORDS MANAGEMENT PLAN - (EFFECTIVE SOLUTIONS INC)		X	2		N		COVERED BY STATEMENT OF WORK IN SUPPORT OF RECORDS MANAGEMENT ACTIVITIES.
LIDIA HGO-S1B-399773	CONTRACT SUPPORT FOR VIDEO/ LASER DISK STUDY SUPPORTING PUBLIC RELEASE SYSTEM AND PUBLIC NOTICE PROGRAM		X	2		N		COVERED BY STATEMENT OF WORK IN SUPPORT OF THE PUBLIC RELEASE SYSTEM.
LIDIA (1B0)	CONTRACT SUPPORT FOR DEVELOPMENT OF COMPUTER REQUIREMENTS DOCUMENT. (WESTERN INSTITUTE OF SOFTWARE ENGINEERING)		X	2		N		COVERED BY STATEMENT OF WORK IN SUPPORT OF RECORDS DATABASE REQUIREMENTS. (IN APPROVAL CYCLE).

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L1A1C	PROVIDE DEPARTMENT SUPPORT TO QA PROGRAM ACTIVITIES		N	TBD		TBD		TO BE PROVIDED
1L1A1D	PROVIDE DEPARTMENT SUPPORT TO QA PROGRAM ACTIVITIES		N	TBD		TBD		TO BE PROVIDED
1L1A2A	PROVIDE INTERFACE WITH OCRWM, EXTERNAL AGENCIES, ETC. SUPPORT PRESENTATIONS TO NRC, USGS, ETC.		N	TBD		TBD		TO BE PROVIDED
1L1C1G	DEVELOP LIFE CYCLE COST ANALYTICAL & DESIGN CAPABILITY (MODEL & D-BASE) TO SUPPORT ACD & SYSTEM STUDY EFFORT. EVALUATE DESIGN-TO-COST APPLICABILITY	Y		TBD		TBD		TO BE PROVIDED
1L1C1V	COORDINATE AND INTEGRATE INFORMATION SYSTEMS REQUIREMENTS		N	TBD		TBD		TO BE PROVIDED
1L1C3C	PROVIDE IN-DEPTH ANALYSIS ON CHANGE REQUESTS FOR DOE, RKE-PB AND M-K		N	TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L1D1H	PROVIDE CONTINUED MAINTENANCE AND REPAIR TO PURCHASED ADP EQUIPMENT		N	TBD	TBD	TO BE PROVIDED
1L1D3C	PERFORM ANALYSIS OF BWIP'S QUALITY PROGRAM REQUIREMENTS AND IMPLEMENT/IMPROVE UPON SYSTEMS AS NECESSARY		N	TBD	TBD	TO BE PROVIDED

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2A1A	Provide waste package project control - Engineered Barriers Department	N	4	N	Administration of the waste package end function.
L2A1C	Provide waste package project control - Research Laboratory	N	4	N	Administration of the waste package end function.
L2A1D	Provide waste package project control - Near Field Geochemistry Group	N	4	N	Administration of the waste package end function. (CFM)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2A1E	Provide waste package project control - Eng Barriers Des, Dev, and Analysis Group	N	4	N		Administration of the waste package end function. (CFM)
L2A1F	Provide systems analyst support to waste package - BWIP Systems	N	4	N		Efforts will be directed to upgrading QA plans. (CFM)
L2A1J	Prepare waste package subsystem engineering/science plans - Engineered Barriers Dept	N	2,5	N		Engineering and science plans will guide project operation and must be prepared to support release of the SCP. (CFM)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2A1K	Apportioned effort to L2A1J engineering/science plans - Near Field Geochemistry Group	N	2,5	N	Engineering and science plans will guide project operation and must be prepared to support release of the SCP. (CFM)
L2A1L	Apportioned effort to L2A1J engineering/science plans - Eng Barriers Des, Dev, and Analysis Grp	N	2,5	N	Engineering and science plans will guide project operation and must be prepared to support release of the SCP. (CFM)
L2A2A	Provide effective institutional interactions relative to the waste package end function - Eng Barriers Dept	N	4	N	Reporting and administrative support to the waste package end function. (CFM)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
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L2A2D	Provide effective institutional interactions relative to the waste package end function - Near Field Geochemistry Group	N	4	N	Reporting and administrative support to the waste package end function. (CFM)
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L2A2E	Provide effective institutional interactions relative to the waste package end function - Eng Barr Des, Dev, & Analysis	N	4	N	Reporting and administrative support to the waste package end function. (CFM)
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STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2A3A	Provide level-of-effort support in responding to unplanned requests from DOE - Eng Barriers Dept	N	4	N	Technical / management / administrative and customer relations support to the DOE through the waste package end function. (CFM)
L2A3D	Provide level-of-effort support in responding to unplanned requests from DOE - Near Field Geochemistry Group	N	4	N	Technical / management / administrative and customer relations support to the DOE through the waste package end function. (CFM)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITWI/S?	JUSTIFICATION FOR EXEMPTION
L2A3E	Provide level-of-effort support in responding to unplanned requests from DOE - Eng Barr Des, Dev, & Analysis Group	N	4		N	Technical / management / administrative and customer relations support to the DOE through the waste package end function. (CFM)
L2A3F	Provide level-of-effort support in responding to unplanned requests from DOE - BWIP Systems	N	4		N	Technical / management / administrative and customer relations support to the DOE through the waste package end function. (CFM)
L2G1A	Evaluate effect of organic complexation on radionuclide solubility/sorption	Y		N/A	Y	Work deferred to fy 1987 to accommodate sump implementation through change request.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITWI/S?	JUSTIFICATION FOR EXEMPTION
L2C1C	a) Perform basalt/groundwater interaction studies - Temple (effects of copper on basalt/gw interactions)	N	6,4	Y	Termination at this point in the experiments would result in restart costs that exceed those of completion of project. In addition, the need for and requirements for this work have been identified in the draft BMTP and the draft SCP Chapter 8, the work is controlled in a documented traceable manner through these plans, the CAA and CAP, the SOW with Temple Univ. and the approved QA (includes training & calibration) program and procedures for the work being conducted there. Completion of the formal engineering plans for this work will not change scope or nature of ongoing work. Prior to the start of any new tests, the QA program should be reviewed by BWIP QA to ensure compatibility with the BQARD. Program planning, administration and data integration activities will continue.
L2C1C	b) Perform basalt/groundwater interaction studies - Temple (Icelandic natural analog study)	N	6,4	Y	Long term autoclave runs are in progress, and termination of runs would result in significant loss of data. In addition, the need for and requirements for this work have been identified in the draft BMTP and the draft SCP Chapter 8, the work is controlled in a documented traceable manner through these plans, the CAA and CAP, the SOW with Temple Univ. and the approved QA program (including training & calibration) and procedures for the work being conducted there. Completion of the formal engineering plans for this work will not change scope or nature of ongoing work. Prior to the start of any new tests, the QA program should be reviewed by BWIP QA to ensure compatibility with the BQARD. Program planning, administration and data integration activities will continue.
L2C1C	c) Perform basalt/groundwater interaction studies - Temple (determine redox capacity of basalt/gw system)	N	1,6,4	Y	Long term autoclave runs are in progress, and termination of runs would result in significant loss of data. Data are required for the waste package ACD. In addition, the need for and requirements for this work have been identified in the draft BMTP and the draft SCP Chapter 8, the work is controlled in a documented traceable manner through these plans, the CAA and CAP, the SOW with Temple Univ. and the approved QA program (includes training & calibration) and procedures for the work being conducted there. Completion of the formal engineering plans for this work will not change scope or nature of ongoing work. Prior to the start of any new tests, the QA program should be reviewed by BWIP QA to ensure compatibility with the BQARD. Program planning, administration and data integration activities will continue.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2C1C	d) Perform basalt/groundwater interaction studies - Temple (Investigate Cohassett basalt/Grande Ronde hydrothermal	N	6,4	Y	Long term autoclave runs are in progress, and termination of runs would result in significant loss of data. In addition, the need for and requirements for this work have been identified in the draft BMTP and the draft SCP Chapter 8, the work is controlled in a documented traceable manner through these plans, the CAA and CAP, the SOW with Temple Univ. and the approved QA program (includes training & calibration) and procedures for the work being conducted there. Completion of the formal engineering plans for this work will not change scope or nature of ongoing work. Prior to the start of any new tests, the QA program should be reviewed by BWIP QA to ensure compatibility with the BQARD. Program planning, administration and data integration activities will continue.
L2C1D	Investigate effects of gamma radiation on waste package materials performance - Argonne	N	2,6, 4	Y	Program and procedures for the work being conducted there are currently being prepared. A stop work would result in loss of contractor personnel and facilities with an associated impact on program schedule/costs. There are limited gamma testing facilities available in the US for this type of testing. Work is controlled in a documented, traceable manner through the draft BMTP, draft SCP Chapter 8, CAA's, the SOW with Argonne and an approved QA plan for the work. Completion of the formal engineering plans for this work will not change scope or nature of planned work for FY1986. Program planning, administration and data integration activities also will continue.
L2C1E	Investigate effects of alpha radiation on waste package performance - Argonne	N	2, 4,6	Y	Current ongoing contract work is development of QA program. Stop work would result in loss of subcontractor and considerable schedule/cost impact to restart as equipment-facility requirements are special. Planned work is strictly investigative—a technique is being sought for radionuclide speciation studies at low concentrations in dilute alkaline solutions. Work is not important to waste isolation at this developmental stage. In addition, the need for and requirements for this work have been identified in the draft BMTP and the draft SCP Chapter 8, the work is controlled in a documented traceable manner through these plans, the CAA and CAP, the SOW with Argonne. A QA program is under development appropriate to this research work. Completion of the formal engineering plans for this work will not change scope or nature of ongoing work. After development of the technique and before start of licensing testing, the QA program plan should be revised to reflect full implementation of NQA-1. Program planning, administration and data integration activities will continue.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
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L2C1H	Initiate field study and sampling of hydrothermally altered Grande Ronde basalt (Columbia River) - Portland State University	N	2, 4, 6	Y	The Portland State University Natural Analog Study was initiated at the specific direction of DOE-HQ and DOE-RL, and at least 1 year would be lost until a restart could occur. In addition, the need for and requirements for this work have been identified in the draft BMTP and the draft SCP Chapter 8, the work is controlled in a documented traceable manner through these plans, the CAA and CAP, and the SOW with Portland State University. The QA program plan (including training and calibration requirements) is approved and procedures are being prepared or are in place. Completion of the formal engineering plans for this work will not change scope or nature of ongoing work. Program planning, administration and data integration activities will continue.
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STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS # DESCRIPTION STOP? EX CAT ITW/S? JUSTIFICATION FOR EXEMPTION

L2C1N	a) Monitor environmental BMRL testing and integrate data - work instruction with BWIP lab to investigate H2O2 / break monitoring	N	4,6	N	Work is almost completed and stoppage would be significantly more costly than continuation. In addition, the work this year is strictly scoping in nature—to determine the magnitude of the problem in order to better plan testing for licensing. Work is controlled in a documented, traceable manner through CAA, CAPs and work instructions. The BMRL has an existing training program and procedures are available in MA-4. Existing equipment calibration is being used. Program planning, administration, data integration and documentation activities will continue.
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STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2C1N	b) Monitor environmental BMRL testing and integrate data - work instruction with BWIP lab for Eh/pH probe installation, procedure development	N	2	Y	Work consists of adding the probe system developed by PNL to existing permeameters for used in monitoring system Eh and pH during packing experiments. Procedures for the use of the probes as attached to the permeameters must be developed and written. This requires a limited amount of testing to ensure that the procedure is adequate. This work should continue. No tests for licensing should be initiated until after all procedures associated with the work and necessary management and QA programs are in place. Work is controlled through CAA's and CAP's. Program planning, administration, data integration and documentation will continue.
L2C1R	Develop procedures and determine reversibility of selected redox couples - Univ of Colorado (Runnells)	N	6, 4,2	Y	Stoppage of work would cost more than completion of planned work for FY1986. In addition, this work is strictly investigative- techniques are being evaluated for their usefulness in studying basalt groundwater redox reactions. Work is controlled in a documented, traceable manner through the SOW with the U. of Colorado, the approved QA program for this work, and CAA's. PhD qualified, recognized experts are conducting the work. The work/contract was directed by DOE-HQ.
L2C1T	Work order with RHO - HO3 production in near-field	N	6	Y	Extent of contract is small, and costs to interrupt / reinstate would be significantly greater than that to continue. Work is controlled through the BMTP, the draft SCP Chapter 8, CAA's, CAP's, the work order statement of work scientific notebooks, ect.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2C2C	Evaluate coupled geochemistry fluid-flow model for near-field environment analysis - Geo-Chem Research Associates	N	6,4	N	Evaluation study will be completed shortly, and interruption would result in significant restart costs. Work planned and performed this year is strictly a scoping study to determine if the code has potential for use in near-field geochemical modeling. Work need is identified in the BMTP and the draft SCP Chapter 8, and is controlled by the CAA, the SOW with Geochem Research Assoc, and the approved QA plan for that work. Work is being conducted by PhD qualified, recognized experts. Should the scoping study indicate the code is feasible for further studies, a more rigorous QA program will be implemented with the contractor. Administrative, planning, data integration and documentation activities will continue.
L2C2D	Conduct thermal-hydraulic environment model/resaturation analyses - D/F (PNL) SOW L2C2P	N	6,4	Y	Contract work is almost completed, and interrupt and restart would be significantly more costly than to permit the contract to terminate normally. Work need is identified in the BMTP and the draft SCP Chapter 8 and is controlled in a documented, traceable manner through CAA's, CAPs, the SOW with PNL and an approved QA program (includes training requirements and procedures for controlling work). Administrative, planning, data integration and documentation activities will continue.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2C2E	Apportioned effort to L2C2D thermal-hydraulic / resaturation analysis	N	6,4	Y	See L2C2D for justification.
L2C2F	Evaluate radiation fields and recalculate doses in waste package environment utilizing radiolytic models - D/F (WHC) COWI 1203111	Y		Y	Work has not yet started. Work will not be initiated until after the SOW and associated QA program plan are in place at WHC for this work.
L2C2G	Apportioned effort to L2C2J statistical analysis support for determining data distributions/ranges - DWIP Systems	Y		Y	See L2C2J for justification.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS # DESCRIPTION STOP? EX CAT ITWI/S? JUSTIFICATION FOR EXEMPTION

L2C2J	Conduct sensitivity analyses for waste package environmental parameters to prioritize data needs	Y		Y	Work activity will be redirected to accommodate preparation of software control procedures and other program requirements to ensure compatibility with the BOARD. Planning, administrative, data integration and documentation activities will continue.
L2C2K	a) Conduct geochemical modeling of hydrothermal reactions between basalt/groundwater using EQ3/EQ6	N	6,4,2	Y	Work scope for this fiscal year is strictly investigative/scoping in nature--the code is being evaluated as to its usefulness in modelling the basalt-groundwater system over the expected temperature range. This information is needed in order to support planning for future work for licensing. The work need is identified in the BMTP and in draft SCP Chapter 8 and is controlled in a documented manner through CAA's and CAP's and existing procedures (MA-14). PhD qualified experts are performing the work. Completion of the program engineering plans will not affect planned FY 86 work. A proportion of this effort will be redirected to initiated preparation of software control procedures for start of next years work with this code, assuming that it will be found suitable for further studies. Program administrative, planning, data integration and documentation activities will continue.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2C2K	b) Review and update EQ3/EQ6 data base	N	6,4	Y	This work supports L2C2K--see L2C2K for justification. In addition, this work is primarily a literature search and existing program controls (MA-14,16) adequately control this effort.
L2C2L	Perform additional coupled fluid/flow analyses - Geo-Chem or TBD (planning package)	N	4	Y	Planning is an administrative activity.
L2C2M	Provide input to waste package performance analysis engineering plan (see L2A1J) - Near-Field Geochemistry Group	N	2,5	N	Engineering and science plans will guide project operation and must be prepared to support release of SCP. (CFM)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2C2N	Provide input to waste package performance analysis engineering plan (see L2A1J) - Eng Barr Des, Dev, & Analysis Group	N	2,5	N	Engineering and science plans will guide project operation and must be prepared to support release of the SCP. (CFM)
L2D2A	a) Radiation shielding analysis for copper container report	N	1	Y	This work supports a major milestone to headquarters on the feasibility of copper as a container materials and is part of a joint effort with the Nevada program. It also supports the report DOE must prepare for Congress on copper container materials. Work stoppage would delay preparation of this report for DOE. Work is being performed by PhD qualified, experts under existing procedures (MA 14,16). Sufficient documentation of the analysis is being provided to enable one to reproduce the analyses at a later date or by other parties as necessary.
L2D31	Sorption-desorption studies (planning package)	N	4	N	Planning is an administrative activity. (GTH)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2D32	Purchase miscellaneous materials (planning package)	N	4	N	Planning is an administrative activity. (GTH)
L2D33	Purchase miscellaneous computer/software equipment (planning package)	N	4	N	Planning is an administrative activity. (GTH)
L2D34	a) Offsite computer time (planning package)	N	6	N	Offsite computer time is required to support ongoing activities. (CFM)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/IS?	JUSTIFICATION FOR EXEMPTION
L2D3G	Provide input to waste package science/engineering plans - Near-Field Geochemistry Group	N	5,2	N	The science and engineering plans must be completed to support the SCP. This task also provides QA interface support. (JFR)
L2D3H	Perform permeameter and triaxial swell pressure and shear strength tests and other physical properties tests	Y		Y	Testing will be terminated after conclusion of experiments currently in progress. These tests will be continued until their planned completion. No new tests will be initiated until adequate calibration capabilities are reestablished in the labs and MA-3 has been fully implemented. Work needs are identified in the BMTP and the draft SCP chapter 8 and work is controlled in a documented manner through CAA's, CAP's, work instructions and existing procedures (MA-4, MA-14). Ongoing tests will use existing calibration. A training program exists for the BMRL. Planning, administration, data integration and documentation activities will continue.
L2D3J	Expand 2101-M packing materials laboratory - J. A. Jones	N	3	N	Scheduled construction and maintenance for required facilities not impacting current testing activities. (AFN & JFR)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2D34	b) Offsite data analysis (planning package)	N		4	Y	Planning is an administrative activity. (GTH)
L2D3F	Perform hydraulic conductivity permeameter tests and measure effects of steam and hydrothermally altered rock material	N		1,6	Y	Long-term conductivity tests in progress. Termination would result in significant cost and schedule impact and loss of data. These tests will be continued until their planned completion. Data are required to resolve a design concern relative to the effect of steam on packing swelling properties required to control releases from the waste package. No new tests will be initiated until adequate calibration capabilities are reestablished in the labs and MA-3 has been fully implemented. Work needs are identified in the BMTP and the draft SCP chapter 8 and work is controlled in a documented manner through CAA's, CAP's, work instructions and existing procedures (MA-4, MA-14). Ongoing tests will use existing calibration. A training program exists for the BMRL. Planning, administration, data integration and documentation activities will continue.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITWI/S?	JUSTIFICATION FOR EXEMPTION
L2D3K	Perform selenium solubility tests with basalt + bentonite + GR-4	Y		Y	Testing will be terminated after conclusion of experiments currently in progress. No new tests will be initiated until adequate calibration capabilities are reestablished in the labs and MA-3 has been fully implemented. Work needs are identified in the BMTP and the draft SCP chapter 8 and work is controlled in a documented manner through CAA's, CAP's, work instructions and existing procedures (MA-4, MA-14). Ongoing test will use existing calibration. A training program exists for the BMRL. Planning, administration, data integration and documentation activities will continue.
L2D3L	a) Perform static diffusion cell experiments to measure key radionuclide transport parameters (222-S)	Y		Y	Ongoing experiments will continue to their planned completion in order to minimize schedule/cost impact and loss of data from these long duration experiments. No new tests will be initiated until adequate calibration capabilities are reestablished in the labs and MA-3 has been fully implemented. Work needs are identified in the BMTP and the draft SCP chapter 8 and work is controlled in a documented manner through CAA's, CAP's, work instructions and existing procedures (MA-4, MA-14). Ongoing tests will use existing calibration. A training program exists for the BMRL. Planning, administration, procurement, data integration and documentation activities will continue.
L2D3L	b) Perform flow-through experiments to measure key radionuclide transport parameters (222-S)	Y		Y	No licensing testing will be initiated until after the BMRL has implemented MA-3/BOARD requirements for this effort. However, program planning, procurement, administration, data integration and documentation activities will continue. In particular, work will continue in the area of developing the flow-through system for this testing. This effort will include a limited amount of testing to establish the proper procedures for operating the equipment and to check out the equipment. Work need is identified in the BMTP and the draft SCP chapter 8 and is controlled in a documented traceable manner through the CAA's, CAP's, work instructions, existing laboratory procedures (MA-4) and laboratory notebooks. This work effort is required to minimize impact to program testing schedule.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2D3W	Monitor packing materials BMRL testing and integrate data for design and performance requirements	N		4	Y	Integrating data and planning are the main tasks of this work package and are explicitly excluded from the stop work order. (JFR)

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2D3X	Perform chemical analyses to determine organic content of bentonite - D/F (PNL) SOW L2D3R	N	6	Y	Work is ongoing now and work stoppage would result in delays in program and potential loss of contractor and facilities. Work need is identified in the BMTP and the draft SCP chapter 8 and is controlled in a documented, traceable manner through the CAA's, the SOW to PNL, the approved QA plan, including training and calibration requirements, for this work, and laboratory notebooks.
L2D4A	Flow-Through Non-Radioactive Testing	N	2,3,6	Y	Data gathered is developmental. It is being used to develop procedures and techniques for flow-through testing of fully radioactive waste forms. Feedback to the inventor/supplier is important in the development of the hardware and are thus important for future safe operation of fully radiocative tests.No licensing testing will be initiated until after the BMRL has implemented MA-3/BOARD requirements for this effort. However, program planning, procurement, administration, data integration and documentation activities will continue. Work need is identified in the BMTP and the draft SCP chapter 8 and is controlled in a documented traceable manner through the CAA's, CAP's, work instructions, existing laboratory procedures (MA-4) and laboratory notebooks. This work effort is required to minimize impact to program testing schedule.
L2D4C	Gamma Radiation Effects on Packing	N	2,6	Y	See L2C1D for justification as this activity is part of that effort.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2D4E	Analyze Solid Run Products	N	6	Y	Products, once removed from the controlled environment of the test, may deteriorate when exposed to the oxic environment outside the vessel resulting in the need to repeat the entire experiment. See L2D4A for further justification as this effort supports that activity.
L2D4F	Develop Eh-H Sensors	N	2,6	N	This activity is strictly an investigative, research effort to develop a high temperature Eh-pH sensor for the hydrothermal materials testing program. It should be noted that this basic research can provide great benefit to the program, if successful, by allowing more accurate data gathering capability. The work need has been identified in the BMTP and the draft SCP chapter 8 and the work is controlled in a documented, traceable manner through CAA's, the SOW to PNL, the approved QA program plan for this work at PNL, including training and calibration requirements, and laboratory notebooks. This is a coordinated effort with L2C1N.
L2D4G	Assist Report Preparation	N	4	N	Normal administrative tasks.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITWI/S?	JUSTIFICATION FOR EXEMPTION
L2D4H	AdministerControl	N	4	N	Normal administrative tasks
L2D4J	Solutions Analysis In 222S	N	6	Y	See L2D4A for justification as this effort supports that activity.
L2D4K	Technical Support to Solution S	N	6	Y	See L2D4A for justification as this activity supports that work effort.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
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L2D4L	Operate Instruments in Room 1B	N	6	Y	See L2D4A for justification as this effort supports that activity.
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L2D4P	PNL Waste/Barrier/Rock Interactions Program	N	2,4,6	Y	Work stoppage would result in significant loss of data from ongoing long term experiments and potential loss of contractor and contractor facilities which have been modified for the BWIP testing program at considerable expense. Ongoing work at PNL includes hot cell program administration, data documentation, developmental testing and procedure development for the hot cell program, and spent fuel flow through testing. The need for this work has been identified in the BMTP and the draft SCP chapter 8 and is controlled in a documented and traceable manner through the CAA's, the SOW with PNL, the approved QA program plan for this work at PNL (including training and calibration requirements) , test matrices and laboratory notebooks.
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STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITWIS?	JUSTIFICATION FOR EXEMPTION
L2D4T	Electron Microscope Support	N	6	Y	Products, once removed from the controlled environment of the test, may deteriorate when exposed to the oxic environment outside the vessel resulting in the need to repeat the entire experiment. See L2D4A for further justification as this effort supports that activity. Work is controlled in a documented, traceable manner through CAA's, the SOW with PNL for the work, existing laboratory procedures, and laboratory notebooks.
L2D4W	Support and Operate Hot Cell	N	1,3,2	Y	Maintain and operate on-going waste/barrier/rock testing program. Long-term tests should be allowed to run to scheduled termination. Failure to do so will result in heavy cost impact and potential loss of contractor personnel and facilities. These are special facilities modified to accommodate the BWIP W/B/R Interactions testing program and would be expensive and difficult to find other facilities and trained personnel at a later time should this facility be lost. Work should not be stopped. The need for the testing has been identified in the BMTP and the draft SCP chapter 8 and the activity is controlled in a documented, traceable manner through the CAA, the SOW to WHC, the approved QA program plan, including training and calibration requirements, approved procedures, test matrices, laboratory notebooks and data sheets.
L2G2D	Monitor/Integrate DHLW Testing Program	N	4	N	This is strictly an administrative activity and is exempt from the stop work analysis.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITW/I/S?	JUSTIFICATION FOR EXEMPTION
L2G2G	Report Prep/QC support for DHLW testing	N		4,2	N	This is an administrative activity and a QA/QC support effort. Activities are directed at bringing the BMRL up to MA-3/BQARD specifications.
L2G2I	Laboratory Administration DHLW testing program	N		4	N	This is strictly an administrative activity and is exempt from the stop work order analyses.
L2G2W	DHLW Solids Analyses, WHC	N		6	Y	Once test is completed run products are removed from the physical and chemical environment of the test. They should be characterized within a reasonable amount of time to ensure that they do not deteriorate in the presence of oxic environment. Analyses of ongoing test products should be completed. Work is controlled in a documented, traceable manner through the CAA, the SOW with WHC, the approved QA program plan for this testing program, test matrices and laboratory notebooks and data sheets. See L2G2A for further justification.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
L2G2Y	Radiation protection for 222-S lab	N		3	N	Activity is required to ensure safety of personnel working in 222-S laboratory.
L5A11	SCP support - defense waste	N		5	N	SCP support is explicitly excepted from the stop work order. (CFM)
L5D22	EA support	N		6	N	Support required to meet scheduled release date for EA. (CFM)

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW/2		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L2A4A	P2/PCP TEST WORK PACKAGE		N	TBD		TBD		TO BE PROVIDED
1L2C1A	EVALUATE EFFECT OF ORGANIC COMPLEXATION ON RADIONUCLIDE SOLUBILITY/SORPTION-TBD	Y		TBD		TBD		TO BE PROVIDED
1L2C2A	CONSULTATION FOR IMPLEMENTING A GEOCHEMICAL MODEL (EQS/EQ6) FOR BASALT/GROUNDWATER INTERACTIONS-LAWRENCE LIVERMORE LABS (IN CONJUNCTION WITH L3/SITE)	Y		TBD		TBD		TO BE PROVIDED
1L2C2F	EVALUATE RADIATION FIELDS & RECALCULATE DOSES IN WASTE PACKAGE ENVIRONMENT UTILIZING RADIOLYTIC MODE LS-D/F (WHC) SOW L2C2	Y		TBD		TBD		TO BE PROVIDED
1L2C2G	APPORTIONED EFFORT TO 1L2C2J STATISTICAL ANALYSIS SUPPORT FOR DETERMINING DATA DISTRIBUTION/RANGES	Y		TBD		TBD		TO BE PROVIDED
1L2C2H	APPORTIONED EFFORT TO 1L2C2D COMPUTER CODE DEVELOPPMENT/CONVERSION SUPPORTY	Y		TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? CAT		EXC ITS/ITW1?		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
1L2C2J	CONDUCT SENSITIVITY ANALYSES FOR WASTE PACKAGE ENVIRONMENTAL PARAMETERS TO PRIORITIZE DATA NEEDS	Y			TBD	TBD	TO BE PROVIDED
1L2D1A	IDENTIFY AND OBTAIN INFORMATION ON DOE REFERENCE WASTE FORMS. MONITOR FAB, PREP, CHARACTER, OF WASTE FORM MATERIALS FOR BWIP TESTING-D/F (PNL) SOW L2D1	Y			TBD	TBD	TO BE PROVIDED
1L2D1C	DEVELOP WASTE FORM ACCTNG REQUIRE AND SPECS AND DEVELOP COMPLIANCE TESTS AND PROCEDURES-D/F (PNL) SOW L2D1R AND L2D1T		N		TBD	TBD	TO BE PROVIDED
1L2D1D	TECHNICAL SUPPORT FOR WASTE FORM ANALYSIS-TBD	Y			TBD	TBD	TO BE PROVIDED
1L2D1M	PURCHASE MISC. MATERIALS/COMPUTER EQUIPMENT AS REQUIRED		N		TBD	TBD	TO BE PROVIDED
1L2D2C	PERFORM PITTING KINETICS TESTS WITH AND WITHOUT GAMMA RADIATION ON (4) CANDIDATE CONTAINER MATERIALS-ROCKWELL SCIENCE CENTER		N		TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT	ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N	
1L2D2D	PERFORM CYCLIC AND STATIC-LOAD TESTING WITH AND WITHOUT GAMMA RADIATION ON (4) CANDIDATE CONTAINER MATERIALS-D/F (WHC) SOW L2D2X		N	TBD		TBD	TO BE PROVIDED
1L2D2E	DEVELOP MATERIALS CHARACTERIZATION CENTER LONG-TERM CORROSION TEST PROCEDURES-D/F (PNL-MCC) SOW L2D2P		N	TBD		TBD	TO BE PROVIDED
1L2D2F	PERFORM SLOW-STRAIN-RATE TESTING WITHOUT GAMMA RADIATION ON (2) COPPER-BASED CANDIDATE CONTAINER MATERIALS-D/F (PNL) SOW L2D2R		N	TBD		TBD	TO BE PROVIDED
1L2D2H	PROVIDE COMPUTER SUPPORT SERVICES AND DATA ANALYSIS		N	TBD		TBD	TO BE PROVIDED
1L2D2M	PURCHASE MISC. MATERIALS/COMPUTER EQUIPMENT AS REQUIRED		N	TBD		TBD	TO BE PROVIDED
1L2D41	PROVIDE TECHNICAL SUPPORT TO THE INTEGRATED TESTING PROGRAM AS REQUIRED (SCIENTIFIC SEARCH/GEOCHEMICAL MODELING)		N	TBD		TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L2D43	PROVIDE SUPPORT TO 2101-M LAB MODIFICATIONS		N	TBD		TBD		TO BE PROVIDED
1L2D44	PROVIDE ENGINEERING DESIGN SUPPORT TO 2101-M LAB MODIFICATION		N	TBD		TBD		TO BE PROVIDED
1L2D45	PROVIDE 2101-M LAB MODIFICATION SUPPORT		N	TBD		TBD		TO BE PROVIDED
1L2D4D	APPORTIONED EFFORT TO L2D4H D/F (PNL) SOW L2D4P AND (WIC) SOW L2D4W		N	TBD		TBD		TO BE PROVIDED
1L2D4V	PROVIDE SUPPORT TO 2101-M LAB MODIFICATIONS		N	TBD		TBD		TO BE PROVIDED
1L2E1A	PERFORM ENGINEERING TRADE STUDIES TO OPTIMIZE CONTAINER SIZE, HEAT LOAD, WASTE PACKAGE ASSEMBLY & IN-TUNNEL EMPLACEMENT	Y		TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L2E1C	DEVELOP STANDARD FOR WASTE PACKAGE STRUCTURAL DESIGN CRITERIA		N	TBD		TBD		TO BE PROVIDED
1L2E1E	DEVELOP ADVANCED CONCEPTUAL DESIGN FOR 6 REMAINING WASTE FORMS/DEVELOP ALTERNATIVE DESIGNS/EVALUATE COMPATIBILITY OF OVERPACK CONCEPT	Y		TBD		TBD		TO BE PROVIDED
1L2E1M	PURCHASE MISC. MATERIALS/COMPUTER EQUIPMENT AS REQUIRED		N	TBD		TBD		TO BE PROVIDED
1L2E1X	PROVIDE FUNDING FOR FY 1985 CARRYOVER DESIGN EFFORT		N	TBD		TBD		TO BE PROVIDED
1L2E2C	PERFORM PRELIMINARY TESTING ON IRON AND COPPER CONTAINER CLOSURE AND NON-DESTRUCTIVE EXAMINATION METHODS-D/F (WHIC OR PNL) SOW L2E2X OR L2E2R		N	TBD		TBD		TO BE PROVIDED
1L2E2D	DESIGN AND CONSTRUCT PACKING MATERIAL FABRICATION PROCESS AND CONTAINER EMPLACEMENT DEMONSTRATION PHYSICAL MODEL	Y		TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L2E2E	DEVELOP DETAILED TEST PLAN FOR STRUCTURAL DESIGN CONFIRMATION TESTS-D/F (WHC OR PNL) SOW L2E2W OR L2E2P		N	TBD		TBD		TO BE PROVIDED
1L2E2H	INTEGRATE DATA FROM DEVELOPMENT STUDIES FOR INPUT TO ENGINEERING PLANS AND TO CONFIRM CONCEPTUAL DESIGNS		N	TBD		TBD		TO BE PROVIDED
1L2E3A	PERFORM PRE-TEST ANALYSES OF EXPERIMENTS-D/F (WHC) SOW L2E3X OR (PNL) SOW L2E3P-INTEGRATE RESULTS OF PA INTO TEST PLANNING AND ENGR. PLAN		N	TBD		TBD		TO BE PROVIDED
1L2E3C	DESIGN AND FABRICATE TWO BENCH-SCALE TEST SYSTEMS FOR PACKING SATURATION AND CONTAINER CORROSION TESTING-D/F (WHC) SOW L2E3W	Y		TBD		TBD		TO BE PROVIDED
1L2E3M	PURCHASE MISC. MATERIALS		N	TBD		TBD		TO BE PROVIDED
1L2F13	COMPLETE WASTE PACKAGE PRELIMINARY RELIABILITY REPORT (FY 1985 CARRYOVER WORK)		N	TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L2F1A	ACQUIRE FINITE ELEMENT MESH GENERATOR FOR W/P DESIGN ANALYSIS	Y		TBD	TBD	TO BE PROVIDED
1L2F1C	SELECT/DEVELOP IMPACT STRESS AND FRACTURE MECHANICS MODEL FOR CANISTER AND CONTAINER HANDLING ACCIDENT CONDITIONS	Y		TBD	TBD	TO BE PROVIDED
1L2F1D	CONDUCT PARAMETER SENSITIVITY AND DATA UNCERTAINTY ANALYSES FOR W/P PERFORMANCE MODELS TO PRIORITIZE DATA NEEDS		N	TBD	TBD	TO BE PROVIDED
1L2F1E	SELECT SUITABLE CODES/USE MATHEMATICAL FORMULATION AND COMPUTER PROGRAMMING (MODELS) TO STIMULATE WASTE PACKAGE PROCESSES	Y		TBD	TBD	TO BE PROVIDED
1L2F1H	APPORTIONED EFFORT TO 1L2F1E CODE DEVELOPMENT/CONVERSION SUPPORT/DATA ANALYSES	Y		TBD	TBD	TO BE PROVIDED
1L2F1J	APPORTIONED EFFORT TO 1L2F1D SENSITIVITY AND UNCERTAINTY ANALYSIS		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		CAT (1-6)	EXC ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
1L2E1C	DEVELOP STANDARD FOR WASTE PACKAGE STRUCTURAL DESIGN CRITERIA		N	TBD	TBD		TO BE PROVIDED
1L2E1E	DEVELOP ADVANCED CONCEPTUAL DESIGN FOR 6 REMAINING WASTE FORMS/DEVELOP ALTERNATIVE DESIGNS/EVALUATE COMPATIBILITY OF OVERPACK CONCEPT	Y		TBD	TBD		TO BE PROVIDED
1L2E1M	PURCHASE MISC. MATERIALS/COMPUTER EQUIPMENT AS REQUIRED		N	TBD	TBD		TO BE PROVIDED
1L2E1X	PROVIDE FUNDING FOR FY 1985 CARRYOVER DESIGN EFFORT		N	TBD	TBD		TO BE PROVIDED
1L2E2C	PERFORM PRELIMINARY TESTING ON IRON AND COPPER CONTAINER CLOSURE AND NON-DESTRUCTIVE EXAMINATION METHODS-D/F (WHIC OR PNL) SOW L2E2X OR L2E2R		N	TBD	TBD		TO BE PROVIDED
1L2E2D	DESIGN AND CONSTRUCT PACKING MATERIAL FABRICATION PROCESS AND CONTAINER EMPLACEMENT DEMONSTRATION PHYSICAL MODEL	Y		TBD	TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L2F1K	PERFORM RISK ASSESSMENT OF COMMERCIAL WASTE FORMS	Y			TBD	TBD		TO BE PROVIDED
1L2F1M	PURCHASE MISC. MATERIALS		N		TBD	TBD		TO BE PROVIDED
1L2G1A	OBTAIN INFO ON DOE REF. DHLW FORMS & MONITOR D/W FORM CHARACTERIZATION TESTING-D/F (PNL) SOW L2GIP		N		TBD	TBD		TO BE PROVIDED
1L2G1C	DEVELOP D/W FORM ACCEPTANCE REQUIREMENTS AND SPECIFICATIONS AND COMPLIANCE TESTS/PROCEDURES-D/F (PNL) SOW L2G1R AND L2G1	Y			TBD	TBD		TO BE PROVIDED
1L2G1D	PROVIDE TECHNICAL SUPPORT FOR DEFENSE WASTE FORM ANALYSIS	Y			TBD	TBD		TO BE PROVIDED
1L2G1G	PROVIDE ADMINISTRATIVE SUPPORT		N		TBD	TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y N	
1L2G3C	DEVELOP STANDARD FOR W/P STRUCTURAL DESIGN CRITERIA (APPORTIONED EFFORT TO 1L2E1C)		N	TBD	TBD	TO BE PROVIDED
1L2G3D	DESIGN AND CONSTRUCT PACKING MATERIAL FAB PROCESS AND CONTAINER EMPLACEMENT DEMO PHY. MODEL	Y		TBD	TBD	TO BE PROVIDED
1L2G3E	PERFORM ADV. CONCEPTUAL DESIGN FOR DEFENSE HIGH-LEVEL WASTE FORMS (APPORTIONED EFFORT TO 1L2E1E)	Y		TBD	TBD	TO BE PROVIDED
1L2G3F	DEVELOP DETAILED TEST PLAN FOR STRUCTURAL DESIGN CONFIRMATION TESTS-D/F (PNL OR WIC) SOW L2G3P OR L2G3W (APPORTIONED EFFORT TO L2E2E)		N	TBD	TBD	TO BE PROVIDED
1L2G3H	ADMINISTER/MONITOR CONTRACTORS AND INTEGRATE DATA FOR INPUT TO ENGR. PLANS, TO CONFIRM CONCEPTUAL DESIGNS, AND DEVELOPP W/P PRELIM. DESIGN REQUIREMENTS		N	TBD	TBD	TO BE PROVIDED
1L2G3J	PERFORM PRELIMINARY STUDY ON IRON AND COPPER CONTAINER CLOSURE AND NDE METHODS/D/F (PNL OR WIC) SOW L2G3R OR L2G3X	Y		TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	Y	N	
		Y	N (1-6)	Y	N	
1L2G3K	PERFORM ENG. TRADE STUDIES TO OPTIMIZE DESIGN PARAMETERS (APPORTIONED EFFORT TO L2E1A)	Y		TBD	TBD	TO BE PROVIDED
1L2G4A	CONDUCT PRELIMINARY ANALYSES OF ENVIR. CONDITIONS FOR DEFENSE WASTE PACKAGE DESIGN CONCEPTS	Y		TBD	TBD	TO BE PROVIDED
1L2G4C	SELECT/DEVELOP IMPACT STRESS AND FRACTURE MECH. MODEL FOR CANISTER AND CONTAINER HANDLING ACC. CONDITIONS (APPORTIONED EFFORT TO L2F1C)	Y		TBD	TBD	TO BE PROVIDED
1L2G4D	CONDUCT PRELIMINARY SENSITIVITY/UNCERTAINTY ANALYSES FOR DEFENSE WASTE PACKAGE DESIGN CONCEPTS (APPORTIONED EFFORT TO L2F1D)	Y		TBD	TBD	TO BE PROVIDED
1L2G4E	PERFORM RISK ASSESSMENT OF DW FORMS	Y		TBD	TBD	TO BE PROVIDED
1L2G4F	PROVIDE ADMINISTRATIVE STAFF SUPPORT		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP		EXC CAT		ITS/ITW		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L2G4G	PROVIDE ADMINISTRATION STAFF SUPPORT		N	TBD		TBD		TO BE PROVIDED
1L2G4H	COMPUTER CODE DEVELOPMENT/CONVERSION SUPPORT (APPORTIONED EFFORT TO L2G4D)	Y		TBD		TBD		TO BE PROVIDED
1L2G4J	PROVIDE ADMINISTRATIVE STAFF SUPPORT		N	TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

G. S. Hunt

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP		EXC CAT		ITS/TWI		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3A1/C (C is continuation of A)	Site Quality Program		X	2		X		Manpower in this work package is essential to implement BWIP quality assurance requirements in the Site Department program controls.
L3A1D/E (E is continuation of D)	Site Baseline		X	4		X		This work is administrative; i.e., planning, budgeting, staffing, etc.
L3A1F	Support to Site Baseline		X	4		X		This work supports administration of Site Department baseline (L3A1D/E) and also is administrative in nature.

STOP WORK ANALYSIS

G. S. Hunt *Just*

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3A2A/C (C is con- tinuation of A)	Site Department Institu- tional interactions		X	4		X		This work is administrative in nature, i.e., travel and manpower to support interactions with program participants (State, NRC, USGS, Indians, etc.).

STOP WORK ANALYSIS

G. S. Hunt

Just

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW? Y N (1-6) Y N						JUSTIFICATION FOR EXCEPTION
L3A3A/C (C is con- tinuation of A)	Unplanned program require- ments for Site Department	X						Manpower will be redirected to develop management controls.

STOP WORK ANALYSIS

G. S. Hunt *gsh*
 END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP2 CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
NORCUS (L3C4)	Gary Smith: mapping interbed and suprabasalt sediments; western margins Pasco Basin		X	6		X	Norcus appointment will expire at end of FY86. If the work is stopped now, the mapping project will not be completed. Work stoppage would result in loss of key student resources.
NORCUS (L3E1, Non- BWIP funded)	Susan Walker: thrust fault metamorphism of clay minerals		X	6		X	Work stoppage would result in loss of key student resources.
NORCUS (L3C3, Non- BWIP funded)	Barton Martin: geo- chemistry of Roza flow.		X	6		X	Work stoppage would result in loss of key student resources.
NORCUS (L3D2, Pass through)	Walter Burt: hydro- geologic investigation in the Dry Creek Valley		X	6		X	Work stoppage would result in loss of key student resources.

STOP WORK ANALYSIS

Site/G. S. Hunt *get*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3C1A	Write position paper on net effect of surficial processes.	X						Manpower will be redirected from technical evaluation to support any remedial actions related to work stoppage.
L3C2A	1. Monitor exploration activities in the Columbia Basin.	X						Manpower will be redirected from technical evaluation to support any remedial actions related to work stoppage.
	2. Update SD-BWI-TI-265.	X						
	3. Prepare position paper on mineral resource potential.	X						
	4. Prepare resource potential on SCP.		X	5				Preparation of SCP.
	5. Prepare resource potential science plans.		X	5				Part of SCP.

L3C3.

STOP WORK ANALYSIS

Site/G. S. Hunt *JSK*

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		IS/IW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-8)	Y	N		
L3C3A	Borehole stratigraphic analysis.	X						
L3C3A-6	Update Data Package 044.		X	5		X		Data Package 044 will be referenced in the SCP
L3C3C	Grande Ronde stratigraphy paper.	X						
L3C3A,C	Procedure development.		X	2		X		Upgrading of procedures for these activities; other remedial actions required to start work.

STOP WORK ANALYSIS

Site/G. S. Hunt *JS*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC						JUSTIFICATION FOR EXCEPTION
		STOP2	CAT	ITS/ITW12	Y	N	Y	
L3C4A	Stratigraphic and structural assessment of borehole data.	X						Work will be performed to complete QA documentation.
	Analytical support contracts with exception of XRF.	X						
L3C4C	QA Lab (12510) sediment analysis.	X						
L3C4D	Update earthquake catalog using new velocity model.	X						
	Complete new velocity model.	X						
L3C4D	Documentation of ground motion calculations for shaft seal design.		X	5			X	Results of ground motion studies in SCP and Engineering Study to support shaft seal design.
L3C4E	Vantage Area Study: photo analysis, map finalization, geophysical surveys; physical property analog.	X						
L3C4F	Collect magnetotelluric data	X						
	Continue deep structure data analysis.	X						

STOP WORK ANALYSIS

Site/G. S. Hunt *C. J. J.*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		BIOP2	CAT	ITS/ITW12	Y N	
L3C4H	Complete paleomag. analysis of field samples (contract)	X				
	Collect additional field samples.	X				
L3C4J	Plane surveying potential field sites (KEH)	X				
	Collect potential field data.	X				
	Magnetic parameter study.	X				
	Analysis of existing data base.	X				
L3C4J	Kaiser Engineers Hanford - Quality Assurance document for plane surveying.	X	2		X	Quality Assurance program is currently being developed and is required before any work can be done.
L3C4K	Snively Basin field mapping.	X				
	Snively Basin geophysical surveys.	X				
	Snively Basin trenching	X				
	Snively Basin Report	X				
L3C4L	Routine seismic data collection. Includes preliminary analysis to assure all systems are working properly. Contracts which must continue:	X	1		Y	Activity is required to record transient data. If network is not kept up, all earthquake data during downtime will be lost.

STOP WORK ANALYSIS

G. S. Hunt *JS*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW1?	JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N	
	Seismic Array Maintenance, SA-5005.		X	1, 6			Required to keep seismic network operating.
	DEC 1134A Maintenance P.O. H5P-SMB-398571.		X	1, 6			Required to continue recording earthquake data.
	Newt Maintenance and software for routine data gathering. PR444001 and 444039.		X	1, 6			Required to continue to record earthquake data.
	University of Washington, direct funded.		X	1			Activity required to record regional earthquake data.
	Work order - Boeing		X	2			Document and verify programs used in seismic surveillance.
L3C4L	Write procedures for seismic data collection recording and analysis.		X	2		X	Procedures for data gathering, recording, and analysis required to start work.
	Technical review support for above.		X	2		X	Review and consultation will continue to support procedure analysis.
	Document and verify existing programs.		X	2		X	All programs used to analyze data past and present must be verified.
L3C4M	Telecommunication support (53400).		X	1		X	Support required to keep seismic network operational.
L3C4N	Geologic support (65630) staff.		X	1		X	Staff will be used to support procedure development.

STOP WORK ANALYSIS

Site/G. S. Hunt *JS*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT (1-8)	ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
L3C4P	Safety support - field investigations.	X		2			Manpower will be redirected to support safety input to procedure revision.
L3C4R	Fabrication support (38300).		X	1		X	Work order will be kept open to support any work required to keep seismic network operating.
L3C4T	Volcanic potential study - now part of disruptive scenario - L3C46.	X					
L3C4U	Geophysical support to field mapping.	X					
L3C4V	Collect seismic reflection, vertical seismic profiling, and resulting report.	X					
	Lease seismic analysis system.		X	2		X	In order to develop procedures for seismic data analysis, the system must be leased and available to staff.
L3C4W	Document water table changes versus earthquake swarm activity.		X				
L3C4X	Seismic scoping study.	X					
	Status Upper Cold Creek Hydrologic Barrier/Yakima Barricade Geophysical Anomaly.	X					
	Position paper on Tectonic models.	X					

STOP WORK ANALYSIS

Site/G. S. Hunt *gsh*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L3C4X	Develop plans and procedures for structure and tectonic studies. Provide review (contract) for plans and procedures.		X	2	X	Procedures for data needs identification, data collection and data analysis are required to start all work. Review and consultation will be continued to support this work.
L3C4Y	Geophysical data intergration and interpretation.	X				
L3C4Y	Develop procedures and plans for geophysical studies.		X	2	X	Procedures for data need identification, data collection, and data analysis required to start work.
	Document and verify existing programs.	X		2	X	All programs used to analyze data, past and present must be verified.
	Consultant support for procedures development.		X	2	X	Review and consultation will continue to support procedure development.
L3C46	XRF sample analysis.		X	6	X	The Washington State University lab has full-time paid technicians to do XRF analysis. Total contract withdrawal will cause layoffs and will require rehiring and retraining to start up work.
Capital Procurement	Procurement of four-wheel drive vehicle and modification.		X	6	X	A four-wheel drive is needed by October 1, 1986, to support seismic surveillance. Lease and modification negotiations should continued because of long lead time required.

STOP WORK ANALYSIS

Site/G. S. Hunt

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3C5A	Intraflow structures of Cohasset Flow, East Sentinel Gap (documentation).	X					
L3C5C	Borehole data collection and analysis of intraflow structures.	X					
L3C5C	Geostatistical analysis K418081		X	5,6	X		Geostatistical analysis to support SCP conceptual repository design.
L3C5D	Analysis support for field and borehole studies Polished thin sections.	X					
L3C5E	Intraflow structures of Cohasset flow, West Sentinel Gap (field studies).	X					
L3C5H	Planning package for contracts for A,C & D.						
	Statistical analysis.	X					
	Computer support.	X					
L3C5F	Develop procedure for collecting fracture data from outcrop.		X	2		X	Procedure development.
	Collect outcrop data.	X					

STOP WORK ANALYSIS

Site/G. S. Hunt *GA*
END FUNCTION MGR/APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3C5G	Draft report on fractures in the vesicular zone.	X						
	Develop procedure for orienting core from paleomagnetism.		X	2		X		Procedure development.
	Develop procedure for collecting fracture data from oriented core.		X	2		X		Procedure development.
	Develop a draft plan for characterizing voids in fractures		X	2		X		Plan required for procedure development.
	Develop a draft plan for the collection of fracture data in the ESF.		X	2		X		Plan required for procedure development.
	Develop panel of BWIP geologists and engineers to evaluate apparent disparity between fracture abundance and rock mass strength.	X						
	Collect fracture data from oriented core.	X						
	PNL statistical assistance.	X						

STOP WORK ANALYSIS

Site/G. S. Hunt
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3C6A	1. Geologic integration and technical direction.		X	4		X	Geosciences Group administrative activities, planning, budgeting, staffing, travel.
	2. Consultant contracts.	X		2,5		X	Consultant support will be restricted to procedure documentation and review and Site Characterization Plan (SCP) preparation support.
L3C6C	Prepare position paper on need for deep borehole.	X					
L3C6D	Prepare document on disruptive scenarios.	X					
L3C6E	Document 3-dimensional stratigraphic and structural model of the reference repository location (RRL).	X					Manpower will be redirected to support computer code verification and documentation, and procurement documentation.
Subtasks							
	1. Maintenance of non-proprietary application software.	X					
	2. Interfacing PRIME computer software to BWIP graphical devices (computer mapping applications).	X					
	3. Procurement of computer hardware and proprietary software maintenance contracts.	X		3		X	Procurements must be to Materials in May to assure that hardware and software maintenance contracts do not lapse starting October 1.

STOP WORK ANALYSIS

Site/G. S. Hunt *gsh*

END FUNCTION MGR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12 Y N (1-6) Y N		JUSTIFICATION FOR EXCEPTION	
L3C6F	4. Developing utility graphics software on the PRIME computer (computer mapping applications).	X				
	1. Drafting and photo work.	X	2,5		X	Support SCP and procedure preparation.
	2. Clerical support.	X	4		X	Support administrative activities.
	3. Aerial services.	X	3	X		For use only in safety-related emergencies or instances requiring aerial photography for SCP or procedural development.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/IWI?				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3D1A	Regional Flow System Characterization	X					Work will be redirected to effect remedial action on work stoppage. Support to the Interagency Hydrology Working Group (IHWG) including direct-funded work to Pacific Northwest Laboratory and U.S. Geological Survey (USGS) and subcontracted work to Berkeley Hydrotechnique and G. E. Neff will be stopped. This will require renegotiation of the interagency agreement with the USGS and cancellation of scheduled meetings.
L3D1C	Regional Flow System Characterizations	X					See note for L3D1A.
L3D1D	Flow System Integration	X					See L3D1A note.
L3D1E	Flow System Integration	X					See L3D1D note.
L3D1F	Flow System Baseline	X		1,6	X		Work will be performed to effect remedial action on work stoppage. Work supports piezometric baselining and is necessary to ensure control of data obtained from the network. Without such data control and management, data from the network could be lost or important information related to the data acquisition strategy could be overlooked.
L3D1G	Flow System Baseline University of Arizona Subcontract	X		1,6	X		See L3D1F. Additionally, work stoppage would result in loss of key student resources used by subcontractor.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT		ITS/ITW/		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3D1K	LHS Testing Analysis	X						Manpower will be redirected from technical evaluation toward remedial actions. Additionally, "consulting" services from Golder, INTERA, HydroGeoChem, TRC, and L. W. Gelhar will support BWIP planning.
L3D1J	Information Support for LHS	X						Manpower will be redirected to support remedial actions related to work stoppage.
L3D1H	LHS Testing Analysis	X						See L3D1K.
L3D1L	Modeling Support	X						Manpower will be redirected to support remedial actions related to work stoppage. This includes verification and benchmarking of computer codes. Boeing Computer Services - Richland (BCSR) personnel will support these activities as well as L3D1F and IHWG work in L3D1A.
	a) All work except documentation of inverse techniques							
	b) Documentation of Inverse Techniques		X	6		X		Work already completed by HEDL will be documented.
L3D1M	Modeling support Planning Package	X						See L3D1L.
L3D1N	Paleoclimatology Contracts	X						Work will be redirected to support remedial actions related to work stoppage.
L3D1P	Paleoclimatology		X	2.5			X	Planning activities and modeling will be conducted only to support code verification and benchmarking for the SCP. QA tasks in contracts will be completed.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL *iff*

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/IWI?				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
Direct Funded in Support of L3D1	1. NORCUS Funding to University of Arizona, Oregon State, UCLA		X	6		X	Discontinuance would result in permanent loss of manpower resources that already have familiarity and experience in BWIP programs.
	2. M-K		X	5		X	Manpower will be used to support SCP.
	3. PNL	X					Work will be redirected to effect remedial action related to work stoppage.
	a) IHWG Activities b) Complete documen- tation on fluid density analysis	X	X	6		X	Work has been completed. May lose results if documen- tation is not closed out.
	4. USGS Support to IHWG	X					See L3D1A.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW1?				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3E2C	1. Water sampling - uncon- fined aquifer/springs	X					
	2. Hydrochemistry Data Package		X	6	X		2. Draft data base management procedures developed and tested; this document reports those results.
	3. Issue Data Base Manage- ment Procedures		X	2	X		3. Procedures for QA for hydrochemistry data base will be approved.
	4. Chlorine-36 Analyses		X	1	X		4. Cl-36 analyses have been stopped for over a year and a half for lack of access to the University of Rochester's tandom Van de Graaf Accelerator. Personnel at that facility have offered Rockwell a short window of time this summer (1986) to analyze a select few samples. If this contract is not pursued now, this opportunity will be lost.
L3E2W	Borehole Water Sampling		X	1	X		Only sampling associated with drilling programs in DC-18, DC-23, and RRL-17 will continue. Drilling will be terminated in these boreholes at a time when their condition will not compromise data. Water sampling will be terminated as the boreholes are com- pleted.
L3E2D/E	1. Natural Redox Couples	X					1. Task 1 of the existing contract to Old Dominion University is to develop a QA plan and document procedures. This contract will be stopped following completion of Task 1.
	2. Noble Gas Isotopes		X	1/6	X		2. Water and gas samples have been stockpiled during drilling of DC-18 and DC-23 in anticipation of establishing a contract with Bendix. These samples have limited shelf life and therefore, will be useless if not analyzed. These analyses will be terminated following logical completion of boreholes DC-18 and DC-23.
	3. Sulfur-34 Analyses of Core	X					

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW1?				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3E2F	Administer PNL direct funded work	X				X	Technical work involving data interpretation will be terminated. Administrative work associated with receiving data from ongoing experiments that must be concluded (see L3E2B) will be continued. Administrative work associated with startup plan of action will also continue.
L3E2 Direct Funded	1. Laboratory Radionuclide Sorption Experiments (PNL)	X		6	X		1. Experiments that have been ongoing for one month to four months will be completed. No new experiments will be started.
	2. U-TH Disequilibrium (PNL)	X		1/6		X	2. Water samples have been collected from DC-18 and DC-23 and stockpiled for future analyses. These analyses must be continued in their planned manner which accounts for shelf-life of the samples. These activities will be terminated in accordance with the logical termination of drilling on DC-23 and DC-18.
	3. Radiological Baseline (PNL)	X		1/6		X	3. Radiological analysis must be conducted on samples stockpiled from boreholes DC-18 and DC-23.
	4. Organic Analyses (PNL)	X		2	X		4. Procedures and QA plans are currently being prepared. This activity will stop upon Rockwell approval of QA plan and procedures.
	5. Isotopic Analyses of Core, Geochemical Modeling (NORCUS, Indiana U.)	X		6	X		5. This work has been ongoing for two and a half years and will be completed in June. Technical work has been done, only reporting remains to complete contract. Same personnel required to prepare.
L3E2G	Geochemical Modeling	X					Manpower will be redirected from technical modeling efforts to geochemical code benchmarking and verification activities associated with QA of computer codes.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3E2K	1. Tracer Testing		X	2/5	X			1. This work is in a procedures/strategy development phase and no field testing is in progress. Manpower will be used to develop plans and procedures, and implement Rockwell developed QA plans.
	2. Procurement of Equipment	X						
L3E2X	LHS Testing	X						
L3E2M	LHS Testing Support - Analytical Services	X						
L3E2R	1. Project Administration		X	4		X		This involves manpower to administer the L3E2 cost account and clerical support.
	2. Analytical Contracts - H-3, Kreuger	X		1/6	X			These contracts provide analytical support for activities associated with boreholes DC-18 and DC-23 and will be terminated in accordance with the logical completion of those two boreholes.
	3. Work Orders - PNL, Kaiser	X						
L3E2T	Groundwater Analyses - Analytical Laboratory	X		1/6	X			Water samples have limited shelf-life, therefore, samples collected at DC-18 and DC-23 must be analyzed expidiciously. This work will be terminated in a manner consistant with the stoppage of boreholes DC-23 and DC-18.
L3E2U	Analytical Development/ Chemistry Laboratory	X						

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITWL2				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3J13	BTDS, BWIP Systems		X	1	X		Systems data gathering activities for piezometer well data.
L3J15	Geology Data Base	X					Stop work.
L3J1C	BTDS Requirements Definition		X	2		X	Stop all work except work on procedures for collection and control of data. Staff working in other areas will be reassigned to this work package to support data base procedure development.
L3J1K	Hydrology/LHS Database		X	1		X	Supports data gathering activities for piezometer well data.
L3J1R	BTDS Planning and Procedures		X	2		X	Stop all work except work on procedures for collection and control of data and software. Staff working in other areas will be reassigned to this work package to support data and software procedures.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL *gsh*

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITWIZ				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3J2A/E (E is con- tinuation of A)	Analytical Support		X	2/4		X	This work package provides support to develop procedural controls. All other work will be stopped.
L3J2C/D (D is con- tinuation of C)	Geochemical Modeling Support		X				All technical work will stop, manpower support will be redirected to upgrade procedural control.
L3J2G	Information Systems Support	X					All work will stop in this work package; manpower will be reassigned to L3J1C and L3J1R to support upgrade of procedural control.
L3J2 Direct Fund NORCUS			X	6		X	Discontinuance would result in permanent loss of resources with BWIP specific expertise.

STOP WORK ANALYSIS

G S Hunt *SSH*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	ITS/TWI?		
		Y N	(1-6)	Y N		
L3D2A	Monitoring-Manpower	X				Closed
L3D2C	Large Scale Hydraulic Testing-Manpower	X				Closed
L3D2D	Piezometer Installation	X				Closed
L3D2E	Planning Support (Gable Mountain to Dillion)		X 1	X		Support will be restricted to monitoring activities and piezometer installation on DC-23GR.
L3D2G	Miscellaneous Support: -Electrical Service -Pump Installation Contract -Travel	X	X 1 X 1	X	X	Support restricted to monitoring activities. Travel will be limited to quality assurance or monitoring related activities.
L3D2J	PNL/BCSR Support: -Monitoring -Geophysical Logging -Modeling (J. Raymond)	x X X	X 1 1/2	X X		Need to continue manpower support for gathering water-level data of the Hanford Site Monitoring Network. logging support for piezometer installation at DC-23GR and for procedure writing will continue.
L3D2K	Technical Services Contracts (Van der Kamp and Fenske)		X 2	X		Need for external review (quality assurance) of monitoring and hydrologic testing data.

↑ PH SS and DC 18

STOP WORK ANALYSIS

G. S. Hunt *dst*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3D2L	Washington State University -Acoustic Modeling -Pasco Basin Geophysical Logging	X					
L3D2M	Washington State University Hanford Site Geophysical Logging	X		6 2	X		geophysical logging of DC-23GR prior to piezometer installation will continue
L3D2N	Workover Rig	X		1	X		of support monitoring and piezometer installation (DC-23GR) activities will continue
L3D2R	Materials/Dedicated Equipment		X	1		X	As needed to support monitoring activities
L3D2T	Maintenance and Transpor- tation		X	3	X		Support for monitoring and piezometer installation (DC-23GR) activities.
L3D2U	Monitoring-Manpower		X	1 4	X		Data gathering manpower support Administration of HTU activities.
L3D2V	Large Scale Hydraulic Testing-Manpower		X	6 2		X	Completion of RRL-2B Test Plan. Support for Procedure Preparation. Continue Readiness Review.
L3D2W	Piezometer Installation- Manpower	X		1/2		X	piezometer installation at DC-23GR which is required to prevent cross contamination of Grande Ronde and to enhance baseline monitoring. This work will continue Support will be used for procedure writing on piezometer installation.

STOP WORK ANALYSIS

G. S. Hunt

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	ITS/ITW?		
		Y N	(1-6)	Y N		
L3D2Y	Pacific Northwest Laboratory - C. S. Cline	X				
L3D21	Seling Service Agreement		X	1/3	X	To support on going data gathering in piezometers and maintenance of existing equipment.
L3D22	Other Contract Support: -United Nuclear Company -Kaiser Engineering Hanford	X	X	6 1/2	X	Storage of equipment at 100 D. Surveying elevations at the DC-23GR piezometers for monitoring and procedure (quality assurance) preparation will continue.
	-Hanford Engineering Development Laboratory	X		1/2	X	probe calibration to support monitoring and procedural writing will continue.
L3D23	Pacific Northwest Laboratory - P. D. Thorne	X				Closed
L3D24	Pacific Northwest Laboratory - P. D. Thorne	X				Closed
L3D25	Materials Laboratory	X				
L3D26	Engineering Development		X	3	X	Trouble shooting of equipment (pressure transducers) related to data gathering activities.
L3D27	Maintenance and Trans- portation		X	3	X	Maintaining equipment to support monitoring activities.

Hired P. D. Thorne

STOP WORK ANALYSIS

G. S. Hunt *JS*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	ITS/ITW?		
		Y N (1-6)	Y N			
L3D28	Manpower Support for Computers - R. Hickman	X	1		X	Support for data gathering (monitoring) activities
L3D29	Facilities and Maintenance Support	X	3	X		Maintenance of data gathering equipment (monitoring).
	<u>OTHER ACTIVITIES:</u>					
	Shakedown of Piston Pump at RRL-2B	X	3		X	Activity limited to preventive maintenance in in accordance with procedure.
	Testing at RRL-17	X				
	Completion of RRL-2B1-2C Completion Report	X	1,4 6		X	Document results of previous drilling and piezometer installation activities.
	Analysis of current and historical hydrologic test data (interval report)	X				
	Integrity Testing Report	X	1/6		X	Necessary for monitoring. Will cost more to stop report writing and start again. Responsible engineer leaving in August.

STOP WORK ANALYSIS

G. S. Hunt

END FUNCTION MGR APPROVAL

		END FORUM MGMT APPROVAL					
WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT	ITS/TWI?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N	
L3F1A	General Manpower Support	X			X		Work package closed.
L3F1C	Stratmaster 100-DC-18	X				X	Complete hydrologic test in Sentinal Gap Flow, cement off zone, drill ahead to Ginkgo Flow top and test. Drill to Grande Ronde formation, run casing and cement in place. This will adequately isolate Wanapum hydro-geologic units and preclude cross migration. Stop date approximately 7/7/86. Design 15 wide office trailer.
	Kaiser Engineering		X	4			
L3F1D	Miscellaneous Support (Anchor Inspection Chem. toilets)		X	3	X		
L3F1E	Core Drilling Engineer/ Dedicated equipment		X	2/3	X		Manpower support will assist in procedure writing. Government owned drills must be serviced and maintained.
L3F1F	Rotary Drill Piezometer Boreholes DC23GR, DC-24, and DC-25	X				X	Stop work and place operation in standby secured mode.

STOP WORK ANALYSIS

G. S. Hunt *JS*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3F1P	Electrical Installation		X	3	X			A Funds Transfer Request is in the system to reallocate funds in this work package for procedure writing from Westinghouse Hanford. Additionally for security reasons, electrical power should be installed at DC-24.
L3F1R	Safety Engineer Support		X	3	X			Safety inspections must continue on drills and well sites.
L3F1T	Manpower Support		X	2	X			Manpower support will be used to write procedures and plans.
L3F1U	J. A. Jones Support		X					
L3F1W	Well Cleanout Repair		X					
L3F1X	Complete DC-23W		X					Closed
L3F1Y	J. A. Jones		X	3	X			Safety and maintenance of well sites and backfilling of mudpits should continue.
L3F11	Pacific Northwest Laboratory		X					Closed

STOP WORK ANALYSIS

W. S. Hunt

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC						JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	ITS/ITW?	Y	N	Y	
		Y	N	(1-6)	Y	N		
L3F1G	DII-Series Boreholes; LY-44 Drill	X		1			Stop work only after completion of DH-33. If borehole is stoped, no high likelihood of loss of borehole due to caving. Estimate stop work date is June 26, 1986.	
L3F1H	RRL-17	X					Closed	
L3F1J	Drilling Engineer Service Contract/Kaiser Engineering Drawings	X						
L3F1K	Cable Tool Entry Holes	X						
L3F1L	Travel/Pacific Northwest Laboratory Photo	X		1			Stop Pacific Northwest Laboratory work only after completion of L3F1C ad L3F1G otherwise documentation of core will be lost.	
L3F1M	Small Rotary Rig	X						
L3F1N	Rotary Drill Entry Holes	X						

STOP WORK ANALYSIS

Site/G. S. Hunt *JS*
END FUNCTION MGR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION	STOP? CAT		EXC ITS/ITW12		JUSTIFICATION FOR EXCEPTION
			Y	N	(1-6)	Y	N
L3E1A		Mineralogic and geochemical characterization of interbeds.	X				
L3E1C		Mineralogic and geochemical characterization of flow tops.	X				
L3E1D		Lab support.	X				
K375653		Contracts: Mossbauer Analyses (Contract not let)	X				
K360095		Thermoluminescence (contract is in place)	X				
		Work orders, Pacific Northwest Laboratory:					
CD6834		XRD	X				
CD6835		Microprobe	X				
CD6836		XRD + probe	X				
L3E1A,C,D		Procedure development		X	2		X
							Upgrading of procedures for these activities; other remedial actions required to start work.

STOP WORK ANALYSIS

J. Graham by DJC.
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L311 & 2	Socioeconomic Program Planning Support		X	4			X	<p>This is a planning activity necessary to support long- and short-term socioeconomic and sociopolitical activities for the Basalt Waste Isolation Project. Specifically, this activity will:</p> <ul style="list-style-type: none"> o Survey existing monitoring program of other energy development facilities. o Review and categorize issues identified in the Environmental Assessment and by the Institutional Socioeconomic Coordination Group. o Develop a factor list of data to be monitored during site characterization. o Identify secondary data sources. o Evaluate existing secondary data for applicability for socioeconomic monitoring. o Identify data that are presently unavailable or unacceptable will be required to assess potential impacts during site characterization. o Assist in reviewing and commenting on the Socioeconomic Monitoring Plan. o Review historical mitigation effort and identify feasible mitigation options. <p>The Battelle Procedures for Socioeconomic Program planning will be included in statements of work and approved by BWIP QA.</p>

STOP WORK ANALYSIS

J. Graham MC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW?2				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3G1	Environmental Characteri- zation		X	1		X	<p>The Interim Environmental Monitoring Program is required to determine specific present and projected environmental conditions in support of the Basalt Waste Isolation Project (BWIP). Emphasis will be placed on 1) obtaining data or establishing model where little or no licensable information presently exists, 2) obtaining 1 year of site specific data to satisfy Department of Energy Order 5484.1 which will allow site characterization activities to proceed without delay (e.g., Exploratory Shaft [ES] drilling), 3) obtain environmental data in the areas (ES, Large Scale Hydraulic Stress Testing) where site characterization activities have the highest potential for impacting the environment, and 4) obtain baseline data in areas (i.e., control) that will not be impacted throughout the life of the project.</p> <p>No data collected under this interim program will be important to safety or waste isolation. Because of the variability in the natural system, some data collection is required in fiscal year 1986 to support licensing decisions 10-20 years hence. <u>This data will not be easily repeatable or corroborative by existing information and should continue.</u></p> <p>This work is covered by an approved Quality Assurance (QA) program.</p> <p>The Pacific Northwest Laboratory BWIP Environmental Program QA Procedures have been approved by BWIP QA, as have procedures for sample identification and control.</p>

STOP WORK ANALYSIS

J. Graham-NC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3G1	Environmental Compliance		X	4			X	<p>This activity includes preoperational and operational surveys of all Basalt Waste Isolation Project (BWIP) field activities to assess potential impacts and/or violation of Federal or State environmental laws. These surveys are an administrative requirement that must be met prior to initiation of field activities.</p> <p>The BWIP Quality Assurance (QA) has approved Pacific Northwest Laboratory's Environmental Program QA procedures and sample identification and control procedures.</p>

STOP WORK ANALYSIS

J. G. Graham, Jr.
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT Y N (1-6)	ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
L3G1A	Environmental Program		X	4		X	This activity includes short and long-term planning including: Environmental Monitoring and Mitigation Planning, Socioeconomic Monitoring and Mitigation Planning, Key Issue #3 development, Environmental Program Management Plan, and Environmental Compliance Plan.

STOP WORK ANALYSIS

Brad Erlandson input

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/IW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L3H2F L3H2G L3H2H L3G1J L3G1K L3G1L	Transportation Planning	X						No appropriate exclusion category. No activity likely this fiscal year, not sure how they will be dealt with in the future.
		X						
		X						
		X						
		X						
		X						
L3H2E		X						No procedures needed
L3G1H			X	5		X		Dollars being used to write procedures for the archaeological portion of the environmental program
L3G1F			X	1		X		Seasonal monitoring of endangered and threatened species. Work must continue or impacts may result to drilling program. Procedures are being developed in parallel.
L3G1E			X	5		X		BCSR computer support - procedures are being prepared to control the work.
L3G1M			X	4		X		Purchase of computer equipment only. Assume no additional licensing procedure required.

STOP WORK ANALYSIS

RE MAY

END FUNCTION MGMT APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L3F2A	PROVIDE PHYSICAL CONTROL OF BOREHOLE CORE, CHIP SAMPLES, SEDIMENT SAMPLES, ETC.		X	1		N	PRESENTLY CONTROLLED BY QUALITY ASSURANCE PROCEDURE (RHO-BH-MA-14), "LITHOGRAPHIC SAMPLING, STORAGE, AND CONTROL" (17-103). SCHEDULED FOR CONVERSION TO THE RHO-BH-MA-17 MANUAL. <i>NEED COMES UNDER</i> <i>QA CRITERIA XVII AND XIII.</i>

STOP WORK ANALYSIS J. Graham by DJC
END FUNCTION MGR APPROVAL

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW1?		Y N	Y N	JUSTIFICATION FOR EXCEPTION
		Y	N			
L3G1	Environmental Characteri- zation	X	1		X	<p>The Interim Environmental Monitoring Program is required to determine specific present and projected environmental conditions in support of the Basalt Waste Isolation Project. Emphasis will be placed on 1) obtaining data or establishing models where little or no licensable information presently exists, 2) obtaining 1 year of site specific data to satisfy Department of Energy Order 5484.1 which will allow site characterization activities to proceed without delay (e.g., Exploratory Shaft [ES] drilling), 3) obtain environmental data in the areas (ES, Large Scale Hydraulic Stress Testing) where site characterization activities have the highest potential for impacting the environment, and 4) obtain baseline data in areas (i.e., control) that will not be impacted throughout the life of the project.</p> <p>No data collected under this interim program will be important to safety or waste isolation. Because of the variability in the natural system, some data collection is required in fiscal year 1986 to support licensing decisions 10-20 years hence. <u>This data will not be easily repeatable or corroborative by existing information and should continue.</u></p> <p>The work is covered by an approved Quality Assurance program.</p> <p>The Pacific Northwest Laboratory BWIP Environmental Program QA Procedures have been approved by BWIP QA, as have procedures for sample identification and control</p>
L3G1C	Environmental Monitoring Related to LHS					
L3G1N	" " -Noise only					
L3G1D	Threatened and Endangered Species Survey					

STOP WORK ANALYSIS

J. Graham by DJC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L3G1R	Environmental Program	X	4		X	This activity includes short- and long-term planning including: Environmental Monitoring and Mitigation Planning, Socioeconomic Monitoring and Mitigation Planning, Key Issue #3 development, Environmental Program Management Plan, and Environmental Compliance Plan.
L3G1G	Environmental Planning for Large Scale Hydrologic Stress Test	X	4			

STOP WORK ANALYSIS

J. Graham by DOE
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N
L311 & 2	Socioeconomic Program Planning Support		X	4		X
L3H1A	Sociopolitical Support of M+M activity					
L3H1C	Sociopolitical Data base Analysis					
L3H1D	DOE HQ working group support					
L3H1E	Monitoring Database Analyses					
L3H2A	Economic Monitoring Analyses					
L3H2D	Socioeconomic data base analyses					

Battelle procedures for Socioeconomic program planning support will be included in Statements of work and approved by BWIP QA

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP CAT		EXC ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
1L3C2C	PLANNING PACKAGE FOR WP-A TECHNICAL SERVICES AND ANALYTICAL SUPPORT CONTRACTS	Y			TBD	TBD	TO BE PROVIDED
1L3C3D	PLANNING PACKAGE FOR CONTRACTS FOR WP-A NEUTRAON ACTIATION ANALYSIS, PALEOMAGNETICS AND COMPUTER SUPPORT	Y			TBD	TBD	TO BE PROVIDED
1L3C41	PLANNING PKG. TO SUPPORT WP-A & WP-X SERVICES TO SUPPORT SEISMIC/TECTONIC ANALYSIS	Y			TBD	TBD	TO BE PROVIDED
1L3C42	PLANNING PKG. FOR WP-D AND WP-L PRINTING. SOFTWARE AND INTERPRETATION TECH. SERVICES. MPR	Y			TBD	TBD	TO BE PROVIDED
1L3C43	PLANNING PKG. FOR WP-F, WP-J, WP-V AND WP-Y	Y			TBD	TBD	TO BE PROVIDED
1L3C44	PLANNING PKG. FOR WP-T AND WP-6	Y			TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ILS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L3C45	PLANNING PKG. FOR WP-A	Y		TBD	TBD	TO BE PROVIDED
1L3C47	SUPPORT IN COLLECTING AND ANALYZING POTENTIAL FIELD DATA	Y		TBD	TBD	TO BE PROVIDED
1L3C4G	PATROL SUPPORT FOR EXPLOSIVE ESCORT		N	TBD	TBD	TO BE PROVIDED
1L3C5J	COMPUTER SUPPORT BY BOEING SERVICES TO ALL EFFORT RELATIVE TO INTRA-FLOW STRUCTURE	Y		TBD	TBD	TO BE PROVIDED
1L3C6G	PLANNING PKG. FOR TECH SERVICES, COMPUTER SERVICES		N	TBD	TBD	TO BE PROVIDED
1L3E1E	PNL TO ACHIEVE NQA-1 STANDARDS DELAYED ELECTRON MICROPROBE ANALYSIS		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP2		CAT		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L3E2A	GROUNDWATER CHARACTERIZATION	Y		TBD	TBD	TO BE PROVIDED
1L3E2H	TRACER/LHS TESTING SUPPORT AND ANALYSIS	Y		TBD	TBD	TO BE PROVIDED
1L3E2J	RADIONUCLIDE SORPTION	Y		TBD	TBD	TO BE PROVIDED
1L3E2L	GEOCHEMICAL MODELING	Y		TBD	TBD	TO BE PROVIDED
1L3E2N	CONTRACT SUPPORT TO WP-A, C, D, H AND J CONTRACTS TO BE LET THRU THE YEAR	Y		TBD	TBD	TO BE PROVIDED
1L3F12	ROTARY DRILL PLANNING PKG	Y		TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP2		EXC CAT 11S/11W12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L3J11	TECHNICAL CONTRACTOR SUPPORT		N	TBD	TBD	TO BE PROVIDED
1L3J12	DATABASE SYSTEMS DEVELOPMENT MAPS, TECTONICS, ETC.	Y		TBD	TBD	TO BE PROVIDED
1L3J14	TELECOMMUNICATIONS SUPPORT		N	TBD	TBD	TO BE PROVIDED
1L3J16	DATA CONTROL AND VALIDATION		N	TBD	TBD	TO BE PROVIDED
1L3J1A	REQUIREMENTS DEFINITION AND ANALYSIS OF SITE DEPARTMENT MASTER DATA BASES		N	TBD	TBD	TO BE PROVIDED
1L3J1D	SCHEMA DEVELOPMENT FOR GEOLOGY MASTER DATA BASE		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? Y N	EXC CAT (1-6)		IIS/ITW12 Y N		JUSTIFICATION FOR EXCEPTION
1L3J1E	SCHEMA DEVELOPMENT FOR GEOLOGY MASTER DATA BASE		N	TBD	TBD		TO BE PROVIDED
1L3J1F	SCHEMA DEVELOPMENT FOR LIIS MASTER DATA BASE, MAINTENANCE AND ENHANCEMENT OF HYD. DATA BASE		N	TBD	TBD		TO BE PROVIDED
1L3J1G	ENHANCEMENTS AND MAINTENANCE OF HYDROCHEMISTRY DATABASE		N	TBD	TBD		TO BE PROVIDED
1L3J1H	ENHANCEMENTS AND MAINTENANCE OF GEOLOGY DATABASE		N	TBD	TBD		TO BE PROVIDED
1L3J1J	MAINTENANCE AND ENHANCEMENTS OF HYDROCHEMISTRY DATABASE		N	TBD	TBD		TO BE PROVIDED
1L3J1L	DATA CONTROL AND VALIDATION		N	TBD	TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/TWIZ				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L3J1M	PROGRAM PLANNING AND PROCEDURE WRITING		N	TBD	TBD	TO BE PROVIDED
1L3J1N	PROGRAM PLANNING AND PROCEDURE WRITING		N	TBD	TBD	TO BE PROVIDED
1L3J1P	PROGRAM PLANNING AND PROCEDURE WRITING		N	TBD	TBD	TO BE PROVIDED
1L3J1T	DATA LOADING AND SUPPORT ACTIVITIES		N	TBD	TBD	TO BE PROVIDED
1L3J1U	BCSR TECHNICAL AND PROGRAMMER SUOPRT TO ALL WORK PACKAGES		N	TBD	TBD	TO BE PROVIDED
1L3J1V	BCSR OPERATIONS SUPPORT TO BWIP DEDICATED COMPUTER		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IWI2				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L3J1W	BCSR PROGRAMMER AND OPERATIONS SUPPORT TO BWIP		N	TBD	TBD	TO BE PROVIDED
1L3J1X	TECHNICAL CONTRACTOR SUPPORT-D&B COMPUTING SERVICES (USGE-NAWDEX/WATSTORE)		N	TBD	TBD	TO BE PROVIDED
1L3J1Y	SOFTWARE SUBSCRIPTION AND HARDWARE MAINTENANCE CONTRACTS		N	TBD	TBD	TO BE PROVIDED

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STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

CH 1/14

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP CAT Y II (1-6)	EXC CAT Y II	ITS/ITW12 Y II	JUSTIFICATION FOR EXCEPTION
L4A4A, L4D1, L4D2, L4D3, L4D4, L4D5	SCP CONCEPTUAL DESIGN - DHLW INCORPORATION	✓	5	✓	NECESSARY TO SATISFY DOE-HQ REQUIREMENTS FOR SCP COMPLETION. PART OF THE STAND ALONE DOCUMENT REQUIRED TO SUPPORT CHAPTER 6 OF THE SCF.
L4A4A, L4D1, L4D2, L4D3, L4D4, L4D5	SCP CONCEPTUAL DESIGN REPORT	✓	5	✓	NECESSARY TO DEFINE BASELINE FOR SCP. SEE ABOVE
L4A4C	ACD SOW	✓		✓	DOES NOT MEET ANY EXCLUSION CATEGORY
L4A4C	MGDS REQ'TS DOC.	✓		✓	DOES NOT MEET ANY EXCLUSION CATEGORY
L4A4D L4A4E	TECH. DIR OF ACD (INACTIVE) <i>CH 1/14</i>	✓		✓	DOES NOT MEET ANY EXCLUSION CATEGORY
L4A4F L4A5	ROD CONSOLIDATION STUDY	✓		✓	DOES NOT MEET ANY EXCLUSION CATEGORY
L4A4F L4A5	TASK VI - 609 QA COORDINATION	✓	2	✓	NECESSARY TO COORDINATE RKE/PB QA PROGRAM WITH BWIP PROGRAM

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT 115/11W12 Y N (1-6) Y N						JUSTIFICATION FOR EXCEPTION
L4A5	TASK VI - 663 RHO REPRESENTATIVE SUPPORT		✓	4		✓		NECESSARY TO PROVIDE ADMINISTRATIVE SUPPORT FOR RHO REPRESENTATIVE AT RKE/PB (OAKLAND)
L4A5	TASK VI - 668 RKE/PB REPRESENTATIVE		✓	4,5		✓		NECESSARY TO MAINTAIN COORDINATION OF SCP ACTIVITIES WITH RKE/PB AND PROVIDE RKE/PB ADMINISTRATIVE COORDINATION
L4A4F L4A5	TASK VI - 685 GEOMECHANICS METHODOLOGY		✓	2		✓		NECESSARY TO ESTABLISH ANALYSIS PROCEDURES WITHIN QA PROGRAM REQUIREMENTS
L4A4F L4A5	TASK VI - 692 RETRIEVABILITY WORK PLAN		✓	2A		✓		NECESSARY TO PLAN FUTURE ACTIVITY IN COMPLIANCE WITH IMPLEMENTATION OF THE BWIP QA PROGRAM
L4A4G L4A4H	ENGINEERING DESIGN AND DEVELOPMENT PLAN		✓	4,5		✓		NECESSARY TO ESTABLISH DEVELOPMENT PLANNING BY REFERENCE INTEGRAL TO SCP.
L4A4G L4A4H	BASLINE SYSTEM DESCRIPTION INPUT		✓	2		✓		NECESSARY TO SUPPORT BWIP MANAGEMENT PROGRAM AND IMPLEMENT PROGRAM CONTROLS
L4A4G L4A4H	SUBSYSTEM DESCRIP- TION DOCUMENT	✓					✓	DOES NOT MEET ANY EXCLUSION CATEGORY

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITY/12 Y N (1-6) Y H						JUSTIFICATION FOR EXCEPTION
L4A4G + L4A4H	SUBSYSTEM ENG- INEERING PLANS		✓	5	✓			NECESSARY, INCORPORATED BY REFERENCE IN SCP
L4A4J	WPAS PREPARATION AND SCHEDULE/LOGIC DEVELOPMENT		✓	2,4		✓		STRICTLY ADMINISTRATIVE ACTIVITIES AND NECESSARY TO SUPPORT MANAGEMENT PROGRAM.
L4A4J	PREPARE/REVISE QA PROCEDURES		✓	2	✓			NECESSARY TO ASSURE THAT QA PROGRAM CONTROLS ARE IN PLACE WHEN NEEDED
L4A4K	CLERICAL SUPPORT ACTIVITIES		✓	4		✓		STRICTLY ADMINISTRATIVE ACTIVITIES
L4A4L, L4A4M, L4A4N, L4A4P, L4A4R, L4A4T	(INACTIVE)	✓				✓		DOES NOT MEET ANY EXCLUSION CATEGORY
L4A4U	PURCHASE OF ONE PC AND ONE TYPEWRITER		✓	4		✓		STRICTLY ADMINISTRATIVE ACTIVITIES

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT IIS/ITW12 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION	
1L4C2A	Provide administrative support for WPAS, Engineering Plans, etc. for Instrumentation Development Activities		X	4		X	Administrative only.
1L4C2C	Prepare scoping Document To Define the Instrumentation Development program		X	5	X		This activity provides input to the Engineering Plans on Instrumentation Development needs. The Engineering Plans are incorporated by reference into The SCP.
1L4C2D	Provide administrative support for WPAS, Engineering Plans, etc. for waste Handling Development Activities		X	4		X	Administrative only.
1L4C2E	Prepare Waste Handling Equipment Development Program Plan.		X	5	X		This activity provides input to the Engineering Plans on Instrumentation Development needs. The Engineering Plans are incorporated by reference into The SCP.
1L4C2F	Prepare SOW for Waste Handling Equipment Development Program	X				X	Does not qualify to continue under stipulated conditions
1L4C2G	Provide administrative support for WPAS, Eng. Plans, etc. for Large Dia. shaft Drilling Development.		X	4		X	Administrative only.
	Provide Input on Large Dia. shaft Drilling Development for Eng. Plans		X	5	X		This activity provides input to the Engineering Plans on Large Diameter shaft Drilling Development. The Engineering Plans are incorporated by reference into The SCP.
1L4C2H	Prepare SOW's for Basalt Drillability Studies, Fluid Flow and chip Removal Studies and Prepare for Test Setup.	X				X	Does not qualify to continue under stipulated conditions
1L4C2J	Prepare SOWs for Engineering Services To prepare Liner Development Program	X				X	Does not qualify to continue under stipulated conditions
1L4C2K	Prepare Repository Liner Development Plan		X	5	X		This activity provides input to the Engineering Plans on Liner development needs. The Engineering Plans are incorporated by reference into the SCP.

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STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP		EXC CAT		ITS/ILY/L2		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L4G-3	DEVELOP Q-LIST		✓	2	✓			NECESSARY TO ESTABLISH QUALITY ASSURANCE LEVELS. REQUIRES DEFINITIVE PROCEDURAL GUIDANCE FROM THE DEPARTMENT OF ENERGY.

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STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L4C2	ROBOTICS STUDY BY HEDL	✓				✓		

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STOP WORK ANALYSIS

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END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L4C16	ROCK MECHANICS LAB ADMINISTRATION		X	4		X	ADMINISTRATION & PLANNING
L4C18	ROCK MECHANICS LAB COORDINATION		X	4		X	ADMINISTRATION & PLANNING
L4C19	ROCK MECHANICS ADMINISTRATION & PLANNING		X	4		X	ADMINISTRATION & PLANNING
L4C1E	BLOCK SHEAR TEST FEASIBILITY INPUT GMC PLAN	X				X	
L4C1G	LARGE SCALE TRIAXIAL TEST FEASIBILITY INPUT GMC PLAN	X		5		X	SUPPORTS SCP PREPARATION BY REFERENCE
L4C1H	EVALUATE THE IN SITU STRESS REGIME INPUT GMC PLAN	X		5		X	SUPPORTS SCP PREPARATION BY REFERENCE
L4C1T	FABRICATION SHOP SUPPORT TO BMRL		X	3		X	PROVIDE MAINTENANCE SUPPORT TO LAB
L4C1C		X					closed out
L4C1D		X					

STOP WORK ANALYSIS

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/TWIL Y N (1-5) Y N				END FUNCTION MGR APPROVAL JUSTIFICATION FOR EXCEPTION
L4C13	High-Temperature/Pressure Triaxial Test Development A. Testing B. Procedures (Calibration and sample control)	✓			X	X Upgrading of Operating procedures and QA provisions
L4C14	Perform Core Inventory	✓		4 + 5	X	X Is an integral aspect of planning for the Geomechanics Characterization Plan, SCP and laboratory testing prioritization
L4C15	Physical/Mechanical Properties Testing A. Testing B. Procedures (Calibration and Sample control)	✓			X	X Upgrading of operating procedures and QA provisions

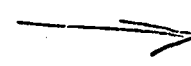
STOP WORK ANALYSIS

WBS WORK PKG #	BRIEF WORK DESCRIPTION	END FUNCTION MGR APPROVAL						JUSTIFICATION FOR EXCEPTION
		EXC STOP2 CAT Y N (1-6)		ITS/ITW1 Y N				
L4C1V	Thermal Conductivity/ Thermal Expansion Develop- ment Testing A. Testing B. Procedures (calibrating testing, and sample control)	✓	✓	2	X	X	Upgrading of BWIP operating ^{procedures} and QA provisions.	
L4C1X	Establish Heat Capacity Testing Capabilities A. Testing B. Procedures	✓	✓	2	X	X	Upgrading of BWIP Operating procedures and QA provisio	
L4C1Y	Thermal Properties Tests on RRL Core	✓			X			
L4C11	Review and Upgrade Existing Laboratory Procedures	✓		2		X	Upgrading of operating and QA procedures.	
L4C12	Uniaxial Compressive Strength Testing	✓			X			

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT		ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N
L4C2 L	PREPARE INITIAL TESTING PLAN AND FINALIZE INPUT FOR ENGINEERING PLANS INCLUDING THE CONCEPTUAL DESIGN & COST ESTIMATE ON THE ROCK SUPPORT FACILITY AT THE NSTF	X		2,4, 45		X
L4C2 M	REVIEW MATERIAL SELECTIONS AND APPROVE MARKET SURVEY AND MATERIALS PROCUREMENT	X			X	
L4C2 N	REVIEW AND APPROVE MATERIAL FABRICATION, STORAGE AND TEST SAMPLE PREP	X			X	
L4C2 P	PREPARE BASELINE DATA REPORT AND REVIEW SEAL PROGRAM	X			X	
L4C2 R	PLAN ROCK BOLT FIELD TESTS, SELECT SITE, CHARACTERIZE, SELECT EQUIPMENT AND MATERIALS	X			X	
L4C2 T L4C2 U		X X				



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STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

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WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L4C3A	Prepare requirements for advanced conceptual design of seals	X		X		Does not qualify to continue under stipulated conditions
L4C3C	Administer seal advanced conceptual design contract	X		X		" " " " " " " "
L4C3D	Perform seal advanced conceptual design	X		X		" " " " " " " "
L4C3E	Determine large scale field test objectives, criteria and concepts	X		X		" " " " " " " "
L4C3F	Preliminary Study to develop chemically stable grout and concretes	X		X		" " " " " " " "
L4C3G	Engineering support for laboratory testing equipment and facilities	X		X		" " " " " " " "
L4C3H	Management/review of Back-fill Materials testing	X		X		" " " " " " " "
L4C3J	Clerical support		X	4	X	Clerical support will be required for procedure writing and planning to recover from work stoppage.
L4C3K	Perform moisture/density and shrinkage limits tests on backfill	X		X		Does not qualify to continue under stipulated conditions

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT (1-6)	ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
L4C3L	Perform hydraulic conductivity tests on backfill	X			X		Does not qualify to continue under stipulated conditions
L4C3M	Clerical and Administrative support		X	4		X	Clerical and administrative support in Basalt Materials Research Laboratory will be required for procedure writing and planning to recover from work stoppage.
L4C3N	Laboratory equipment maintenance, installation, repair and modification	X			X		Does not qualify to continue under stipulated conditions
L4C3P	Perform mechanical property tests on backfill	X			X		Does not qualify to continue under stipulated conditions
L4C3R	Support for development of Seal Engineering Plans		X	5	X		Based on current guidance, the Engineering Plans are intended to be issued in support of the Site Characterization Plan, i. e. to provide the detailed plans for tests and studies necessary to implement the strategies for resolving issues to be discussed in SCP Chapter 8.
L4C3T	Perform damaged rock zone structural and flow analysis	X			X		Does not qualify to continue under stipulated conditions
L4C3V	Preliminary study to develop chemically stable grout	X			X		Does not qualify to continue under stipulated conditions

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? CAT		EXC ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L4G2A	<p>Sensitivity Analysis to Develop Criteria for Shaft and Borehole Seals</p> <p>o Affected DOE Milestones and Commitments:</p> <p>(1) Issue Report for Drift Backfill Performance Sensitivity Analysis</p> <p>(2) Issue Report for Borehole Seals Performance Sensitivity Analysis</p>		X	5,6	X	Information generated by this nearly completed scoping analysis is required to complete the reports of L4G2C and to update Section 8.3.3 of the Site Characterization Plan in accordance with review comments so that it will contain the detail required to guide seals subsystem design, analysis, and performance confirmation testing. The sensitivity analyses of this work package are 90% completed; delay will severely impact completion of dependent work packages and will be more costly than completing the 10% of the work that remains.
L4G2C	<p>Coordinate Performance Assessment Analysis, Issue Supporting Documents</p> <p>o Affected DOE Milestones and Commitments:</p> <p>(1) Issue Report for Drift Backfill Performance Sensitivity Analysis</p> <p>(2) Issue Report for Borehole Seals Performance Sensitivity Analysis</p>		X	5,6	X	This activity constitutes the documentation of the results of the sensitivity analyses of L4G2A and the administration and guidance of performance assessment activities related to guidance of repository seals design. Completion of this documentation is essential to the update of Section 8.3.3 of the Site Characterization Plan as described above. The report documenting the results of the drift backfill sensitivity to subsystem performance is completed except for final review and any changes that might result therefrom. The companion report documenting the results of the borehole seals sensitivity study has been initiated, and its delay would not be advised in that it logically should be issued with the drift backfill sensitivity report.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		CAT (1-6)	EXC ITS/IW1?		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
L4G2D	Repository Seal Development Group clerical support		X	4		X	This work package is essential to maintain administrative activities, including letter writing, reporting and procedure preparation.
L4G2E	Repository Seal Development Group support to Sensitivity Analysis and Performance Assessment Analysis - \$9K		X	5,6	X		This work package is required to complete sensitivity analyses under L4G2A and C. It covers computer support costs. The sensitivity analyses are vital to completion of the SCP. It is not prudent to discontinue sensitivity analyses - these are essential to project continuation. Refer to justifications for L4G2A and C.
L4G2E	Structural Modeling by PNL- \$40K		X			X	
L4G2E	Remainder - \$68K		X			X	
L4G2F	Develop Temperature Time History at Seal Locations		X	5,6	X		This analytical work is essentially complete. This work should not be stopped to assure preservation of the data now in hand and ready to be assembled in final report. Temperature-time history information at seal locations is vital to BWIP. Cessation at this late stage would result in loss of this essential knowledge. Temperature-time information is important to writing the SCP.

STOP WORK ANALYSIS

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END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L4C1E	Block Shear Test Feasibility	X		6				It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	Block Shear Test Input to Geomechanics Characterization Plan	X		5				
L4C1G L4C1H	Large Scale Triaxial Test Feasibility	X		6				It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	Large Scale Triaxial Test Input to Geomechanics Characterization Plan	X		5				
L4C1T	Evaluate the In Situ Stress Regime	X					X	Does not qualify to continue under stipulated conditions
	In Situ Stress Input to Geomechanics Characterization Plan	X		5				
L4C17	Fabrication Shop Support to BMRL	X		3			X	Provide maintenance support to lab.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	Y	N	
L4C1F L4C1A	Programming support for development of the Data Base Management System and Procedures	X		2&6		X		Will lose continuity in developing data base management process. Data collection and control is a NOA-1 requirement. It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L4C1L	Develop the Rock Mechanics Data Base Management System	X		2&6		X		Will lose continuity in developing data base management process. Data collection and control is a NOA-1 requirement. It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L4C1J	NSTF Phase I Summary Report	X		5			X	Supports the Site Characterization Plan by reference.
L4C1M	NSTF Phase I Rock Properties Report	X		5			X	Supports the Site Characterization Plan by reference.
L4C1K	Determine Rock Mass Scale Geoen지니어ing Properties From the NSTF Block Test Data	X					X	Does not qualify to continue under stipulated conditions

STOP WORK ANALYSIS

N. Steger

END FUNCTION MOR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		IIS/IIW1?		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	Y	N	
L4C1N	Prepare Report on Engineering Geologic Cross Sections	X					X	Does not qualify to continue under stipulated conditions
L4C1P	Prepare Quantitative Des- cription of Discontinuities	X					X	Does not qualify to continue under stipulated conditions
L4C1Q	Prepare Geomechanics Characterization Plan		X	5		X		Supports the SCP by reference.
L4C1R								
L4C1U								
L4C1V								
L4C16	Rock Mechanics Laboratory Administration		X	4		X		Administration and planning
L4C18	Rock Mechanics Laboratory Coordination		X	4		X		Administration and planning
L4C19	Rock Mechanics Adminis- tration and Planning		X	4		X		Administration and planning

STOP WORK ANALYSIS

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END FUNCTION MGR APPROVAL

WBS WORK PKB #	BRIEF WORK DESCRIPTION	EXC		ITS/ITWI2		JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	Y	N	
		Y	N (1-6)	Y	N	
L4C1W	Thermal Conductivity/ Thermal Expansion devel- opment testing. A. Testing	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	B. Procedures (calibra- tion, testing and sample control).	X	2		X	Upgrading of BWIP operation procedures and QA provisions.
L4C1X	Establish Heat Capacity testing capabilities A. Testing	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	B. Procedures	X	2		X	Upgrading of BWIP operation procedures and QA provisions.
L4C1Y	Thermal Properties Tests on RRL core.	X		X		Does not qualify to continue under stipulated conditions.
L4C11	Review and Upgrade Existing Laboratory Procedures.	X	2		X	Upgrading of BWIP operation procedures and QA provisions.
L4C12	Uniaxial Compressive Strength testing	X		X		Does not qualify to continue under stipulated conditions.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		ITS/ITWL		JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	Y	N	
		Y	N (1-6)	Y	N	
L4C13	High-Temperature/ Pressure Triaxial Test Development					
	A. Testing	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	B. Procedures (Calibration and sample control)	X	2		X	Upgrading of operating procedures and QA provisions
L4C14	Perform Core Inventory	X	4 & 5		X	Is an integral aspect of planning for the Geomechanics Characterization Plan, SCP and laboratory testing prioritization

STOP WORK ANALYSIS

N. Steger

END FUNCTION HGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		CAT		ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		STOP?	Y	N	(1-5)	Y	N	
L4C15	Physical/Mechanical Properties Testing							
	A. Testing	X					X	Does not qualify to continue under stipulated conditions
	B. Procedures (Calibration and sample control)		X		2		X	Upgrading of operating procedures and QA provisions

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	Y	N	
L4C2L	Prepare initial testing plan and finalize input for engineering plans including the Conceptual Design and Cost Estimate on the Rock Support Facility at the NSTF		X	2, 4 & 5			X	Planning activity, test procedure development, and input to the SCP by reference
L4C2M	Review material selections and approve market survey and materials procurement	X				X		Does not qualify to continue under stipulated conditions
L4C2N	Review and approve material fabrication, storage and test sample preparation	X				X		Does not qualify to continue under stipulated conditions
L4C2P	Prepare baseline data report and review seal program	X				X		Does not qualify to continue under stipulated conditions
L4C2R	Plan Rock Bolt Field Tests, select site, characterize, select equipment and materials	X				X		Does not qualify to continue under stipulated conditions

1. The listed existing BWIP management and technical control procedures are utilized by the Rock Mechanics Group in the performance and control of design and development activities for in situ geomechanical tests. These procedures fulfill the requirements for design and test control stipulated in the BWIP Quality Assurance Requirements Document (BQARD) adequately enough to justify the continuation of this work so that the tests will be ready to support the ES Program test schedule. Little or no risk of rework after the BWIP has completed the review and upgrade of all plans and procedures for BQARD compliance is anticipated. Proof of principal and developmental testing only is currently in process. There is no demonstration, qualification, certification, or training tests planned for FY 1986.

QAPP's

- 3-302 BWIP Design Review Process
- 3-403 Record of Design Review Processing
- 12-101 Measuring and Test Equipment Calibration
- 6-101 Supporting Document Description
- 17-101 BWIP Records Management System
- 6-106 Controlled Notebooks
- 3-201 Computational Briefs
- 17-102 Recording Data for QA Records
- 4-401 Control of DOE-RL Administered Contracts
- 4-402 QA Review of Procurement Documents
- 15-104 Disposition of NCR's and Supplier Deviation Requests
- 4-403 QA Requirements, External Work Orders
- 3-301 Technical Review

- 3-301.1 Peer Review
- 3-101 Technical Baseline Identification
- 3-501 Interface Control and Documentation
- 6-103 BWIP Engineering Order System
- 2-105 NSTF Test Procedure
- 11-201 Test Facility Operating Plan
- 5-103 Test and Operations Procedure Control
- 11-207 BWIP ESF Test Design Administration and Control

AG's

- 3-103 Recording of Meeting Minutes

2. The BOARD (MA-3) establishes the requirements and the procedures in the QAPP-MA-14 Manual implement these requirements. These procedures are being reviewed and revised as necessary to comply, but as indicated above they are adequate for the developmental phase of the Geomechanics in situ test program. There is little management risk that any rework will be required once this review is complete.

3. Approved requirements for the Geomechanics in situ tests will not be available until later in FY 86 when the Geomechanics Characterization Plan (Science Plan) is completed and released. In the interim there is ample management confidence that the planned activities will be justified based on:

- The current level of completeness of the GCP
- The SCP Conceptual Design (Section 8)
- The draft version of Chapter 8.3 of the SCP
- The Exploratory Shaft Test Plan
- The Systems Requirements Tree
- The draft Design Methodology
- The Site Characterization Report
- Task V, Engineering Study No. 8 (RKE/PB)

4. The people performing this work have graduate degrees in the geotechnical disciplines. Senior personnel have numerous years of practical experience. Qualifications are documented in a Department file. Documentation of familiarity and understanding of the above procedures is also on file. No further training is deemed necessary for this phase of the Geomechanics in situ test program.

5. Development testing is and will be conducted with calibrated and controlled equipment in accordance with 12-101. WHC and RHO Production Support personnel will perform these calibrations using existing procedures. Qualification and certification testing will be performed as part of the demonstration test program planned during subsequent FYs after the completion of development and test design work.

Rock Mechanics Group
Required Restart Activities
Plan of action for Rock Mechanics Activities

The actions required to restart the tasks stopped because of the "stop Work order" are, in approximate order of priority, the following:

A. Procedure review and rewrite:

1. Review all procedures pertaining to Rock Mechanics Group work.
2. Review the procedure hierarchy to assure that the simplest, most complete but cost and schedule effective hierarchy is in place; correct as necessary.
3. Assure that each procedure provides complete directions on how to perform the activity with minimum cross reference to other pertinent procedures.
4. Assure the no procedures reference other procedures that do not exist at the time of the affected procedures issuance.
5. Determine a priority for rewriting or amending the affected procedures to assure proper direction of activities from the top of the procedure hierarchy.
6. Prepare a reasonable, but expedited, schedule, utilizing available staff from halted activities, to rewrite or amend the affected procedures.
7. Utilize, to the maximum extent possible, the personnel who will be directed by the procedure for reviewing, amending, rewriting and initial reviewing of the procedure; QA should monitor the entire effort.
8. Assure, at the outset, that the procedure defining approval requirements requires only the minimum number of approvals, in addition to QA's, necessary to accomplish the task.

B. Contract, Work Order and contractor review, surveillance and direction:

1. Review all BWIP contracts and Work Orders to assure that necessary guidance is given to assure compliance with governing procurement and contracting procedures.
2. Require a Quality Assurance/Control/Verification audit of contractors, subcontractors, and affected Hanford contractor organizations to ascertain and assure compliance with governing procurement, contracting and quality assurance procedures.
3. Modify contracts, as required, to assure compliance, by the contractors, with the above.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/IIW12						JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L4C2A	Provide administrative support for WPAS, Engineering Plans, etc. for Instrumentation Development Activities.		X	4		X	Administrative only.	
1L4C2C	Prepare scoping Document To Define The Instrumentation Development program		X	5		X	This activity provides input to the Engineering Plans on Instrumentation Development needs. The Engineering Plans are incorporated by reference into The SCP.	
1L4C2D	Provide administrative support for WPAS, Engineering Plans, etc. for waste handling Development Activities.		X	4		X	Administrative only.	
1L4C2E	Prepare Waste Handling Equipment Development Program Plan.		X	5		X	This activity provides input to the Engineering Plans on Instrumentation Development needs. The Engineering Plans are incorporated by reference into The SCP.	
1L4C2F	Prepare SOW for Waste Handling Equipment Development Program	X				X		
1L4C2G	Provide administrative support for WPAS, Eng. Plans, etc. for Large Dia. shaft Drilling Development.		X	4		X	Administrative only.	
	Provide Input on Large Dia. shaft Drilling Development for Eng. Plans		X	5		X	This activity provides input to the Engineering Plans on Large Dia. shaft Drilling Development. The Engineering Plans are incorporated by reference into The SCP.	
1L4C2H	Prepare SOW's for Basalt Drillability Studies, Fluid Flow and chip Removal Studies and Prepare for Test start up.	X				X		
1L4C2J	Prepare SOW for Engineering Services To prepare Liner Development Program	X				X		
1L4C2K	Prepare Repository Liner Development Plan	X		5		X	This activity provides input to the Engineering Plans on Liner Development needs. The Engineering Plans are incorporated by reference into The SCP.	

STOP WORK ANALYSIS

~~CONFIDENTIAL~~
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
LACZ	ROBOTICS STUDY BY HEDL	✓						

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Revised 5/9/86

Call 375-4863
TBC (and Corvan)

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

5/9/86

JUSTIFICATION FOR
EXCEPTION

WBS WORK
PKG #

BRIEF WORK
DESCRIPTION

EXC
STOP CAT ITS/TW12
Y N (1-6) Y N

L4G1A

Discrete Element Code
(UDEC) Installation
and Checkout on PRIME

X

X

Stopped because not qualified under
any of the exception criteria.
Management Control of work will be
reviewed and upgraded as required
prior to restart.

Develop Data Needs
Specifications for
Constitutive Modeling

X

X

Stopped because not qualified under
any of the exception criteria.
Management Control of work will be
reviewed and upgraded as required
prior to restart.

Discrete Element Code
Vendor Training (UDEC
and CICE Codes)

X

4

X

Vendor training class is only available
at 12 month intervals. Contents of course
are not effected by project procedures.

Prepare Status Report
on constitutive
Modeling

X

4

X

Activity is part of the planning process
for geomechanics modeling activities.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12 Y H (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L461D	Complete Installation and Checkout of Graphics Processor Code (PATRAM)	X			X	stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.
	Verification and Benchmark Testing of ABAQUS code	X			X	stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.
	Verification and Benchmark Testing of other codes	X			X	stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.
	Prepare letter report on status of all Geomechanics code Verification and Benchmarking	X	4		X	status report provides necessary input to the geomechanics modeling planning process.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? Y N	CAT (1-5)	EXC ITS/TWIZ Y N	JUSTIFICATION FOR EXCEPTION
L4G1E	Preparation of Geomechanics Modeling Plan	X	5	X	Engineering plan required to support SCP preparation
	Prepare status report on A/E access to geomechanics codes.	X	4	X	Modeling interface for coordination of BMLP and A/E planning
L4G1C	Prepare letter report on evaluating failure criteria in ABAQUS	X		X	Stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.
	Prepare letter report of 2-D nonlinear thermomechanical parameter sensitivity studies.	X		X	Stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

JUSTIFICATION FOR
EXCEPTION

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP CAT		EXC		JUSTIFICATION FOR EXCEPTION
		Y	N	Y	N	
L4G1J	Provide programmer to support geomechanics model development	X			X	stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.
L4G1K	Clerical Support		X	4	X	Administrative activity to support preparation of plans, budgets, procedures, etc.
	Purchase of Miscellaneous computer supplies and Maintenance contracts.		X	4	X	Administrative activities. Orders have been placed and materials are needed for plan and procedure preparation.
L4G1G		X				Closed out
L4G1H		X				Closed out

{ L4G1G
L4G1H
↓ packages are closed out

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP		EXC CAT		ITS/TWIL		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L4G1M	ADINA/ADINAT software license renewal	X		6	X			Code has been identified for use to support LA design verification. Failure to renew existing license would incur penalty of \$25,000 for later renewal. No procedures are required, action is only payment of the renewal fee.
	Modification of material model for the ABAQUS code	X		6	X			Technical personnel at the vendor's office capable of completing this work are available only this summer and will not be available for contract work at a later time. ABAQUS is a proprietary computer code developed by Hibbitt, Karlsson, and Sorensen, Inc. The vendor's quality assurance procedures for the ABAQUS finite element code will also apply to this modification. Use of the modified code will be subject to necessary project procedures as eventually required by the Software Management Plan.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW/2 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L4G1M	Purchase additional ABARUS license for LANL Cray computer	X			X	Stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.
L4G1N	Project technical interface	X	4		X	Necessary for preparation of procedures and plans.
L4G1P	Staff support for document review and procedure development	X	4		X	Activity supports procedure development
L4G1R	Complete NSTF Phase I Reports	X			X	Stopped because not qualified under any of the exception criteria. Management control of work will be reviewed and upgraded as required prior to restart.

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STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

JUSTIFICATION FOR
EXCEPTION

WBS WORK
PKG #

BRIEF WORK
DESCRIPTION

EXC
STOP CAT 115/11W12
Y N (1-6) Y N

D14KB

Procure graphics
Workstation.

X

6

X

Activity completed - equipment received
on 5/6/86 and contract to be paid.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/ITW12 Y N (1-6) Y N						JUSTIFICATION FOR EXCEPTION
L4C3A	Prepare requirements for advanced conceptual design of seals	X				X		
L4C3C	Administer seal advanced conceptual design contract	X				X		
L4C3D	Perform seal advanced conceptual design	X				X		
L4C3E	Determine large scale field test objectives, criteria and concepts	X				X		
L4C3F	Preliminary Study to develop chemically stable grout and concretes	X				X		
L4C3G	Engineering support for laboratory testing equipment and facilities	X				X		
L4C3H	Management/review of Back-fill Materials testing	X				X		
L4C3J	Clerical support		X	4		X		Clerical support will be required for procedure writing and planning to recover from work stoppage.
L4C3K	Perform moisture/density and shrinkage limits tests on backfill	X				X		

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP2 Y N	GAT (1-6)	IIS/IW12 Y N	IIS/IW12 Y N	
L4C3L	Perform hydraulic conductivity tests on backfill	X		X		Clerical and administrative support in Basalt Materials Research Laboratory will be required for procedure writing and planning to recover from work stoppage.
L4C3M	Clerical and Administrative support		4		X	
L4C3N	Laboratory equipment maintenance, installation, repair and modification			X		
L4C3P	Perform mechanical property tests on backfill	X		X		Based on current guidance, the Engineering Plans are intended to be issued in support of the Site Characterization Plan, i. e. to provide the detailed plans for tests and studies necessary to implement the strategies for resolving issues to be discussed in SCP Chapter 8.
L4C3R	Support for development of Seal Engineering Plans		5	X		
L4C3T	Perform damaged rock zone structural and flow analysis	X		X		
L4C3M	Preliminary study to develop chemically stable grout	X		X		

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/ITW		JUSTIFICATION FOR EXCEPTION	
		Y	N (1-6)	Y	N
L4G2A	<p>Sensitivity Analysis to Develop Criteria for Shaft and Borehole Seals</p> <ul style="list-style-type: none"> Affected DOE Milestones and Commitments: <ul style="list-style-type: none"> (1) Issue Report for Drift Backfill Performance Sensitivity Analysis (2) Issue Report for Borehole Seals Performance Sensitivity Analysis 	X	5,6	X	<p>Information generated by this nearly completed scoping analysis is required to complete the reports of L4G2C and to update Section 8.3.3 of the Site Characterization Plan in accordance with review comments so that it will contain the detail required to guide seals subsystem design, analysis, and performance confirmation testing. The sensitivity analyses of this work package are 90% completed; delay will severely impact completion of dependent work packages and will be more costly than completing the 10% of the work that remains.</p>
L4G2C	<p>Coordinate Performance Assessment Analysis, Issue Supporting Documents</p> <ul style="list-style-type: none"> Affected DOE Milestones and Commitments: <ul style="list-style-type: none"> (1) Issue Report for Drift Backfill Performance Sensitivity Analysis (2) Issue Report for Borehole Seals Performance Sensitivity Analysis 	X	5,6	X	<p>This activity constitutes the documentation of the results of the sensitivity analyses of L4G2A and the administration and guidance of performance assessment activities related to guidance of repository seals design. Completion of this documentation is essential to the update of Section 8.3.3 of the Site Characterization Plan as described above. The report documenting the results of the drift backfill sensitivity to subsystem performance is completed except for final review and any changes that might result therefrom. The companion report documenting the results of the borehole seals sensitivity study has been initiated, and its delay would not be advised in that it logically should be issued with the drift backfill sensitivity report.</p>

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/IW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L4G2D	Repository Seal Development Group clerical support		X	4		X	This work package is essential to maintain administrative activities, including letter writing, reporting and procedure preparation.
L4G2E	Repository Seal Development Group support to Sensitivity Analysis and Performance Assessment Analysis - \$9K*		X	5,6	X		This work package is required to complete sensitivity analyses under L4G2A and C. It covers computer support costs. The sensitivity analyses are vital to completion of the SCP. It is not prudent to discontinue sensitivity analyses - these are essential to project continuation. Refer to justifications for L4G2A and C. Covered details in requirements, procedure, etc.
L4G2E	Structural Modeling by PNL-\$40K**		X			X	
L4G2E	Remainder - \$68K***		X			X	
L4G2F	Develop Temperature Time History at Seal Locations		X	5,6	X		This analytical work is essentially complete. This work should not be stopped to assure preservation of the data now in hand and ready to be assembled in final report. Temperature-time history information at seal locations is vital to BWIP. Cessation at this late stage would result in loss of this essential knowledge. Temperature-time information is important to writing the SCP.

L4C1 STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

and better
justification
for the stop

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IIWZ		JUSTIFICATION FOR EXCEPTION	
		Y	N (1-6)	Y	N
L4C1A	PROGRAMMING SUPPORT FOR DEVELOPMENT OF THE DATA BASE MANAGEMENT SYSTEM AND PROCEDURES.	X	2	X	WILL LOSE CONTINUITY IN DEVELOPING DATA BASE MANAGEMENT PROCESS. DATA COLLECTION & CONTROL IS A NDA-1 REQUIREMENT.
L4C1F		X	2	X	
L4C1L		X	2	X	
L4C1J	DEVELOP THE ROCK MECHANICS DATA BASE MANAGEMENT SYSTEM.	X	2	X	"
L4C1U	NSTF PHASE I SUMMARY REPORT PREPARATION	X	5	X	REPORTING OF EXISTING INFORMATION WILL SUPPORT THE SITE CHARACTERIZATION PLAN BY REFERENCE.
L4C1M	NSTF PHASE I ROCK PROPERTIES REPORT PREPARATION	X	5	X	"
L4C1K	DETERMINE ROCK MASS SCALE GEOENGINEERING PROPERTIES FROM THE NSTF BLOCK TEST DATA	X		X	"
L4C1N	PREPARE REPORT ON ENGINEERING GEOLOGIC CROSS SECTIONS	X		X	"
L4C1P	PREPARE QUANTITATIVE DESCRIPTION OF DISCONTINUITIES	X		X	"
L4C1Q	PREPARE GEOMECHANICS CHARACTERIZATION PLAN & MAINTAIN	X	5	X	PLANNING ACTIVITY THAT WILL SUPPORT THE SITE CHARACTERIZATION PLAN - THE SCIENCE PLAN SUPPORTS THE SCP BY REFERENCE.
L4C1R					
L4C1U					
L4C1V					

L4C1

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L4C16	ROCK MECHANICS LAB ADMINISTRATION		X	4		X	ADMINISTRATION & PLANNING
L4C18	ROCK MECHANICS LAB COORDINATION		X	4		X	ADMINISTRATION & PLANNING
L4C19	ROCK MECHANICS ADMINISTRATION & PLANNING		X	4		X	ADMINISTRATION & PLANNING
L4C1E	BLOCK SHEAR TEST FEASIBILITY	X				X	
L4C1G	INPUT GMC PLAN		X	5			SUPPORTS SCP PREPARATION BY REFERENCE
L4C1H	LARGE SCALE TRIAXIAL TEST FEASIBILITY	X				X	
	INPUT GMC PLAN		X	5			SUPPORTS SCP PREPARATION BY REFERENCE
L4C1T	EVALUATE THE IN SITU STRESS REGIME	X				X	
	INPUT GMC PLAN		X	5		X	SUPPORTS SCP PREPARATION BY REFERENCE
L4C17	FABRICATION SHOP SUPPORT TO BMRL		X	3		X	PROVIDE MAINTENANCE SUPPORT TO LAB

STOP WORK ANALYSIS

END FUNCTION NOT APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT		Y/N		JUSTIFICATION FOR EXCEPTION
		Y	N	1	2	Y	N	
L4C13	High-Temperature/Pressure Triaxial Test Development	✓					X	
	A. Testing							
	B. Procedures (Calibration and sample control)	✓		2			X	Upgrading of operating procedures and QA provisions
L4C14	Perform Core Inventory	✓		4			X	Is an integral aspect of planning for the Geomechanics Characterization Plan, SCP and laboratory testing prioritization
				5				
L4C15	Physical/Mechanical Properties Testing	✓					X	
	A. Testing							
	B. Procedures (Calibration and sample control)	✓		2			X	Upgrading of operating procedures and QA provisions

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

CBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		BIOPT CAT		ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		Y	H	(1-6)	Y	H		
L4C1W	Thermal Conductivity/ Thermal Expansion Develop- ment Testing A. Testing B. Procedures (calibration, testing, and sample control)	✓		2	X		X	Upgrading of BWIP operating ^{procedures} and QA provisions.
L4C1X	Establish Heat Capacity Testing Capabilities A. Testing B. Procedures	✓		2	X		X	Upgrading of BWIP operating procedures and QA provision
L4C1Y	Thermal Properties Tests on RRL Core	✓			X			
L4C1I	Review and Upgrade Existing Laboratory Procedures	✓		2			X	Upgrading of operating and QA procedures.
L4C1Z	Uniaxial Compressive Strength Testing	✓			X			

L4C2

STOP WORK ANALYSIS

①

END FUNCTION MGR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION		EXC STOPZ CAT IIS/IWIZ Y N (1-6) Y N		JUSTIFICATION FOR EXCEPTION
L4C2 L	PREPARE INITIAL TESTING PLAN AND FINALIZE INPUT FOR ENGINEERING PLANS INCLUDING THE CONCEPTUAL DESIGN & COST ESTIMATE ON THE ROCK SUPPORT FACILITY AT THE NSTF	X		2,4, 45		X PLANNING ACTIVITY, TEST PROCEDURAL DEVELOPMENT, AND INPUT TO THE SCF BY REFERENCE.
L4C2 M	REVIEW MATERIAL SELECTION AND APPROVE MARKET SURVEY AND MATERIALS PROCUREMENT	X			X	
L4C2 N	REVIEW AND APPROVE MATERIAL FABRICATION, STORAGE AND TEST SAMPLE PREP	X			X	
L4C2 P	PREPARE BASELINE DATA REPORT AND REVIEW SEAL PROGRAM	X			X	
L4C2 R	PLAN ROCK BOOT FIELD TESTS, SELECT SITE, CHARACTERIZE, SELECT EQUIPMENT AND MATERIALS	X			X	

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP2 Y N	CAT (1-6)	EXC ITS/ITW1?		JUSTIFICATION FOR EXCEPTION	
				Y	N		
1L4A1A	MANAGEMENT & DIRECTION OF THE REPOSITORY DESIGN & DEV. GROUP			N	TBD	TBD	TO BE PROVIDED
1L4A1C	MANAGEMENT & DIRECTION OF THE REPOSITORY SEAL DEV. GROUP			N	TBD	TBD	TO BE PROVIDED
1L4A1D	MANAGEMENT & DIRECTION OF THE MODELING & ANALYSIS GROUP			N	TBD	TBD	TO BE PROVIDED
1L4A1E	QA INTEGRATION SUPPORT TO GEOMECHANICS DEPT			N	TBD	TBD	TO BE PROVIDED
1L4A1F	PROGRAM ASSURANCE SUPPORT TO ENGINEERING, CONSTRUCTION AND OPERATIONS			N	TBD	TBD	TO BE PROVIDED
1L4A1G	QA INTEGRATION SUPPORT TO ENGINEERING DESIGN & DEV			N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L4A1H	PROVIDE TECHNICAL & PEER REVIEW OF DESIGN AND DEVELOPMENT ACTIVITIES		N	TBD	TBD	TO BE PROVIDED
1L4A1J	PROVIDE TECHNICAL AND PEER REVIEW OF DESIGN AND DEVELOPMENT ACTIVITIES		N	TBD	TBD	TO BE PROVIDED
1L4A2A	ENGINEERING DESIGN AND DEVELOPMENT SUPPORT TO INSTITUTIONAL INTERACTIONS		N	TBD	TBD	TO BE PROVIDED
1L4A2C	GEOMECHANICS SUPPORT TO INSTITUTIONAL INTERACTIONS		N	TBD	TBD	TO BE PROVIDED
1L4A3A	SUPPORT PROVIDED IN RESPONSE TO UNPLANNED ACTIVITIES INCLUDING I/AC'S		N	TBD	TBD	TO BE PROVIDED
1L4A3C	GEOMECHANICS SUPPORT TO UNPLANNED ACTIVITIES INCLUDING I/AC'S		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP		EXC		JUSTIFICATION FOR EXCEPTION
		Y	N	CAT	ITS/ITW12	
		(1-6)		Y	N	
1L4C21	PROVIDE A PRICED CONCEPTUAL DESIGN OF A ROCK SUPPORT SYSTEM DEVELOPMENT BUILDING	Y		TBD	TBD	TO BE PROVIDED
1L4G3A	PERFORM SAFETY ASSESSMENT	Y		TBD	TBD	TO BE PROVIDED
1L4G3C	CONTRACT ASSISTANCE FOR PRECLOSURE SAFETY ANALYSES	Y		TBD	TBD	TO BE PROVIDED
1L4G3D	PERFORM DOSE CALCULATION FOR PRELIMINARY PA ASSOC. WITH SCP CONCEPTUAL DESIGN	Y		TBD	TBD	TO BE PROVIDED
1L4X2A	REPOSITORY PRICING	Y		TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

J. Graham by DTC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L5A1A	Regulatory and Institutional end function control and management. Provide guidance to the Basalt Waste Isolation Project end function on licensing and regulatory concerns.		X	4		X	This work package supports end function planning, budgeting, staffing, reporting, space acquisition, management activities, reporting, etc. These activities are required to provide overall control of Regulatory and Institutional activities.

STOP WORK ANALYSIS

J. Graham by DJC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L5A1D	Defense Waste Support		X	4		X	This activity involves review of Defense Waste Documents and programs to ensure compatability with the Basalt Waste Isolation Project. No data gathering or generation occurs in this work package.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX	CAT	ITW/IS?	JUSTIFICATION FOR EXEMPTION
L5A11	SCP support - defense waste	N		5	N	SCP support is explicitly excepted from the stop work order. (CFM)

STOP WORK ANALYSIS

J. G. Valdez - M
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW? Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L5C1A	Site Characterization Plan Coordination and Production including: o Reference gathering and copyright releases o Text development o Senior Technical Review Team o Issues and Licensing Strategies o Site Characterization Plan Procurement actions	X	5		X	Part of the Site Characterization Plan preparation activities. The following Site Characterization Plan procedures are in place or under development: - SCP Production Procedure - Assurance program for the Preparation of the SCP - SCP Text Development and Control Procedure - SCP Review Procedure - Administrative Record and SCP Review File Procedure - Commitment Tracking Procedure - Licensing Document Control Procedure - SCP Procedures Manual Development, Implementation and Maintenance - Service Agreement Control Procedure

STOP WORK ANALYSIS

J. Graham by DJC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	ITS/ITW?		
		Y N	(1-6)	Y N		
L5C1E	Site Characterization Plan (Section 8.2)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C1H	Site Characterization Plan (Section 8.3.5.1)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C1J	Site Characterization Plan (Performance Assessment)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C1L	Site Characterization Plan (Systems Integration)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C1R	Site Characterization Plan (Site)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C1W	Site Characterization Plan (Geomechanics)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C1I	Site Characterization Plan (Engineered Barriers)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C12	Site Characterization Plan (Materials Lab)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C16	Site Characterization Plan (Safety and Quality Assurance)	X	5	X		Part of Site Characterization Plan preparation activities.*
L5C18	Site Characterization Plan (Engineering Design)	X	5	X		Part of Site Characterization Plan preparation activities.*

*See L5C1A.

STOP WORK ANALYSIS

J. G. Graham - NC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT Y N (1-6)	ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
L5D1A	Environmental Evaluations		X	3		X	Environmental evaluation checklists are required prior to drilling boreholes, or other activities with potential environmental impacts, to ensure that these operations can proceed without compromising environmental safety programs. Procedure for Environmental Evaluations under development.

T Graham by DJC
END FUNCTION MGR APPROVAL

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT Y N (1-6)	ITS/ITW12 Y N	JUSTIFICATION FOR EXCEPTION	
L5D2A	Environmental Assessment		X	4		X	The camera-ready final Environmental Assessment was sent to the Department of Energy-Headquarters on April 9, 1986. The only ongoing activity is the mailing of microfiche reference sets of new references used in the final Environmental Assessment. Expected completion date is May 15, 1986. The mailing aspect is an administrative action.

STOP WORK ORDER REPORT FOR NEAR-FIELD GEOCHEMISTRY GROUP

WBS #	DESCRIPTION	STOP?	EX CAT	ITW/S?	JUSTIFICATION FOR EXEMPTION
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L5D22	EA support	N	6	N	Support required to meet scheduled release date for EA (CFM)
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STOP WORK ANALYSIS

J. Graham by DTC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT	ITS/TWIZ		JUSTIFICATION FOR EXCEPTION
		Y	N		Y	N	
L5E1A	Support the Department of Energy, Office of Civilian Radioactive Waste Management, and Nuclear Regulatory Commission meetings and workshops. Conduct reviews of technical materials prepared by the Nuclear Regulatory Commission, etc.		X	4		X	Ongoing support required to continue discussions with involved parties on the Site Characterization Plan, Environmental Coordination, etc. This is considered an administrative action.

STOP WORK ANALYSIS

J. Graham by DJT
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L5E2A	Governmental Liaison		X	4		X		This is the work package that support interface activities with the State of Washington, affected Indian tribes, and local governments. It is a public affairs activity.

STOP WORK ANALYSIS

J. Graham - MC
END FUNCTION MGR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION		EXC STOP? CAT ITS/ITW1? Y N (1-6) Y N		JUSTIFICATION FOR EXCEPTION	
L5E3A	Information Services support the Department of Energy in providing information to the press, public, and external agencies.		X	4		X	L5E3A is a level of effort activity with high public visibility and no direct impact on safety or waste isolation. Much of it is <u>strictly administrative</u> . Much of its efforts now are focused on the release of the final Environmental Assessment. Information services plays a key role in the reports release, and it is highly <u>imprudent</u> to stop these activities. The release of the Environmental Assessment will heighten public attention on the Basalt Waste Isolation Project and it is especially important to continue the Basalt Waste Isolation Project's public information program at this time.

STOP WORK ANALYSIS

J. Graham by DTC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT		IS/ITW		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L5E3C	Transportation Support for Public Affairs	X		4			X	This work package provides transportation support for exhibit setups and public meetings.

STOP WORK ANALYSIS

J. Graham by DTC
END FUNCTION MGR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION		EXC STOP? CAT ITS/ITW12 Y N (1-6) Y N		JUSTIFICATION FOR EXCEPTION	
L5E3D	Site Tours		X	4		X	This work package funds manpower and equipment needs to conduct tours to the Near Surface Test Facility and Exploratory Shaft.Sites.

STOP WORK ANALYSIS

J. Graham - NC
END FUNCTION MGR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION		EXC STOP? CAT ITS/ITW? Y N (1-6) Y N		JUSTIFICATION FOR EXCEPTION	
L5E3E	Equipment Setup		X	4		X	This work package provides telecommunications, audio and electronic hook-up for public meetings and press conferences.

STOP WORK ANALYSIS

J. G. ... - NC
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT Y N (1-6)	ITS/ITW/2		JUSTIFICATION FOR EXCEPTION
					Y	N	
L5A3A	Unplanned Activities		X	4		X	Unplanned support activities to meet the Department of Energy-Richland Operations Office needs and objectives. Dependent upon requested actions, these unplanned activities <u>could</u> be subject to a stop work order.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IWL2 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
1L5C13	PROVIDE ENGR. BARRIERS SUPPORT TO DISPOSITION OF COMMENTS AND PROGRESS REPORTS	N	TBD	TBD		TO BE PROVIDED
1L5C1D	CONTRACT FOR PRINTING AND DISTRIBUTION OF THE SCP	N	TBD	TBD		TO BE PROVIDED
1L5C1F	PROVIDE ANTICIPATED PEER REVIEWS	N	TBD	TBD		TO BE PROVIDED
1L5C1G	COORDINATION & PRODUCTION SUPPORT TO 1ST SEMI-ANNUAL PROGRESS REPORT (DUE 12/86)	N	TBD	TBD		TO BE PROVIDED
1L5C1K	PERFORMANCE ASSESSMENT SCP COMMENT RESPONSE AND SITE CHAR. PROGRESS REPORT SUPPORT	N	TBD	TBD		TO BE PROVIDED
1L5C1M	SYSTEM INTEGRATION SCP COMMENT RESPONSE AND SITE CHARACTERIZATION PROGRESS REPORT SUPPORT	N	TBD	TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP2 Y N	EXC CAT (1-6)		ITS/ITW12 Y N		JUSTIFICATION FOR EXCEPTION
1L5C1T	SITE SUPPORT TO SCP COMMENT RESPONSES		N	TBD	TBD		TO BE PROVIDED
1L5C1U	SITE SUPPORT TO FIRST SEMI-ANNUAL PROGRESS REPORT (DUE 12/86)		N	TBD	TBD		TO BE PROVIDED
1L5C1V	SEAL SUPPORT TO SCP		N	TBD	TBD		TO BE PROVIDED
1L5C1X	SUPPORT TO SCP COMMENT RESPONSE AND SEMI-ANNUAL PROGRESS REPORTS		N	TBD	TBD		TO BE PROVIDED
1L5D24	PROVIDE FINAL EA SUPPORT		N	TBD	TBD		TO BE PROVIDED
1L5D2C	PROVIDE FINAL EA SUPPORT		N	TBD	TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP Y N	EXC CAT ITS/ITW/2		JUSTIFICATION FOR EXCEPTION	
			(1-6)	Y N		
1L5D2E	PROVIDE FINAL EA SUPPORT		N	TBD	TBD	TO BE PROVIDED
1L5D2G	PROVIDE FINAL EA SUPPORT		N	TBD	TBD	TO BE PROVIDED
1L5D2H	PROVIDE FINAL EA SUPPORT		N	TBD	TBD	TO BE PROVIDED

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STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

5/7/84

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITWL?		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L6A1M	1. Management & Integration		N	4		N		Administrative - Project provides for Management and Technical Management of the Architect/Engineer and technical support to the Construction Manager. Administrative Function proves for the management by the Facilities and Test Design Group and supports the planning, budgeting, staffing reporting, etc. for the group. Additionally the activity supports meeting preparation, attendance and/or presentation at project (DOE) meetings. Impacts definitive design of Exploratory Shaft Facility (ESF) and programmatic milestone for start of ESF construction 5/87.
	2. DOE License Workshop		N	4		N		Same as above.
L6K5C	1. Data Acquisition System	Y				N		Impacts procurement and test schedule. Data information needs are not current. Activity can restart based on appropriate documentation of the collection of data needs for the Data Acquisition System requirements document. The quantities of data may change but would be minimum risk to complete DAS specification and procurement document. Requires review of existing Basalt Waste Isolation Project (BWIP) procedures for supporting and procurement document release. Impacts programmatic milestone for start of Exploratory Shaft In-Situ Testing 3/90.
	L6K5D DAS Procurement	Y				N		No activity (Same as above)

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		CAT	ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		STOP?	Y N		(1-6)	Y N	
L6K5A	Construction Testing	Y				N	Impacts test schedule. Data information needs are not current for tracability of tests.
L6A1F	1. Study 11	Y				N	Study 11 establishes ESF Liner Design Methodology and Criteria Requirements. Work Stoppage is recommended due to lack of approved internal peer review procedure. work can restart based on utilization of the A/E's procedure. and Rockwell Quality Assurance Surveillance (planned) results. appropriate documentation of participant qualifications and technical data development is available. Impacts programmatic milestone for start of ESF construction 5/87.
	2. Corrosion Study	Y				N	Same as above.
	3. Engineer Requirement (ICD)	Y				N	Interface data for the ESF is to be provided in design data engineering report document. Revision 1 of the document updates Test and Facility requirements of other BWIP groups. Documentation procedures need to be verified against Rockwell (QA-MA-3.
	4. General Engineer Support		N	4		N	Administrative - Engineering support to design activities (Task VI) management of A/E design revisions to released documents. Provides planning, budgeting, and reporting of A/E Task VI activities.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION	
		STOP?	CAT	ITS/ITW?	12		
		Y	N	(1-6)	Y	N	
L6A1H	1. Support to ES Drilling a. Spike b. Drilling tools c. Rig modes d. Drilling parameters		N	4		N	Project Support to construction management of documentation submittals and other construction related documents. Computerized Program (Spike) to facilitate shaft drilling planning during construction. Technical presentation of spike to the institute of shaft drilling technology.
	2. General Support to Construction		N	4		N	Administrative - Preparation of procurement documentation, technical response manager, review and coordination of submittals, etc. No specifically planned tasks (LOE). Other stopped work will impact this activity.
L6A1K	Management of Advanced Construction (Liner Documentation Resolution)		N	2		N	Management of advanced long lead procurement. This activity is necessary to achieve adequate implementation of BWIP QA requirements. The task includes closing of open documentation issues requiring approval by the A/E for the 72/112 inch casing fabrication necessary to complete NQA-1 code and BWIP QA requirements. Current BWIP procedures identified in Rockwell BW-MA-14 (7-402 and 15-103) control work activities. Activities are essential for the project to close fabrication documentation of the ESF first shaft casing and are imprudent to stop at this time. Supports programmatic milestone for start of ESF construction 5/87.
L6J15	Document Adequacy Review - Functional Analysis - ESF	Y				N	No activity - Document released. Revisions will require review of procedures for compliance with RHO-QA-MA-3. Additional review is required for inclusion of program requirements of General Requirements Document (GRD) Appendix E. No impact identified.
L6J1T	Engr. Safety Analysis Report (SAR)	Y				N	No activity. Preliminary data and coordination has been provided to Licensing/Safety Groups.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L6J14	Support ESF Reviews	X	N	*		N	No activity. Supports readiness review for start to drill first shaft ESF (L6J1). *No action is planned pending resolution of prerequisites plan for ESF (L6J1). Impacts programmatic milestone for ESF start of construction 5/87.
L6A4C	Design Engr. Support for Readiness Review		N	* 4		N	Currently no activity. Supports readiness review and A/E coordination for ESF No action is planned pending resolution of prerequisites plan for ESF (L6J1). Impacts programmatic milestone for start of ES Construction - 5/87.
L6C1B	Access Road Definitive Design		N	* 4		N	* No Activity Road design is complete. State approval is pending DOE-RL action. Road design was designed in accordance with Hanford Plant Standards.
L6C1C	240 Access Road Engr. Support			4			No Activity Support to construction manager during construction.
L6D1A	Design - ESF Change House			4			No Activity Will not start prior to start of ESF definitive design (L6A1L).
L6J1J	Engr. Support to Prerequisites Plan			2,4			Not Facility and Test Design responsibility, work package is managed by Systems Integration Department. Activities are pending resolution of prerequisites plan (L6J1).

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L6A1N	Design Consultant for ESF Liner	X	N	*		N	* Current activities are complete. Additional tasks would require review of BWIP consultant procurement procedures for compliance with RHO-QA-MA-3.
L6A1T	Engineering Services Cobbs-Engineering	Y				N	Engineering services are utilized for continuing ESF Design Support. No activity for ESF Definitive Design is released for work. Stop work for Study 11 (L6A1F) will likewise necessitate a stop work for this task.
L6A1L	Management of Definitive Design 1. Prerequisite Design Documentation Preparation	Y				N	The Site-Specific Design Requirements, Statement of Work and Resource Assessment Documents are required to initiate definitive design. Procedures are required to be reviewed and/or written to be in compliance with RHO-QA-MA-1 prior to completion of documentation. Finalization of the Design Basis Study (L6J4) and DOE-HQ release of the GRD, Appendix E is required preparatory to release of the SSRD. Impacts programmatic milestone for start of ESF construction 5/87.
	2. Exemption Preparation to DOE Imposed Codes and Standards	Y				N	Exemption requests are being prepared in accordance with Rockwell Hanford Operations procedures. No attempt has been made to evaluate those procedures for compliance with RHO-QA-MA-3. No major impact is expected provided exemptions are completed prior to 30% review of ESF Definitive Design.

STOP WORK ANALYSIS

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APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?	EXC		CAT	ITS/ITW12		JUSTIFICATION FOR EXCEPTION
			Y	N		(1-6)	Y	
L6J1A	PRP		N	4			N	The ES Construction/Operations Prerequisite Plan is the "driver" document for the ES Readiness Reviews (RR's). It is outdated and needs revisions. The development of ES RR procedures are dependent upon it.
L6J1C	CLERICAL SUPPORT FOR L6J1A		N	4			N	
L6J1D	ADMINISTRATIVE SUPPORT FOR L6J1A		N	4			N	
L6J1E	START-UP TEAM CHAIRMAN		N	2,4			N	These work packages relate to the Planning and Organization activities of ES Start-to-drill Startup Team. The Startup Team is currently developing its plan procedures and checkout activities all of which are essential to the drafting of proper and proven procedures.
L6J1G	SYSTEMS REP.		N	2,4			N	
L6J1H	QA REP.		N	2,4			N	
L6J1J	ENGINEER REP.		N	2,4			N	
L6J1K	CONSTRUCTION REP.		N	2,4			N	
L6J1M	LICENSING SUPPORT		N	2,4			N	
L6J1X	QIC REP.		N	2,4			N	
L6J11	QIC REP.		N	2,4			N	
L6J12	PROJECT ENGINEER REP.		N	2,4			N	
L6J1R	SUPPORT, START-UP TEAM		N	2,4			N	

STOP WORK ANALYSIS

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WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? CAT		EXC		ITS/ITW12	Y N	JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y			
L6J1F	FUNCTIONAL ANALYSIS	Y		--			N	Stopped because not qualified under any exemptions. Management control of work will be reviewed and upgraded as required during restart.
L6J1N	SAFETY ANALYSIS	Y		--			N	
L6J1P	READINESS REVIEW BOARD	Y		--			N	
L6J1S	DESIGN ADEQUACY FOR FUNCTIONAL ANALYSIS	Y		--			N	
L6J1T	ENGINEERING SUPPORT FOR SAFETY ANALYSIS	Y		--			N	
L6J1W	SPECIAL REVIEWS	Y		--			N	
L6J14	ENGINEER SUPPORT FOR REVIEWS	Y		--			N	
L6J15	OPERATION REVIEW	Y		--			N	This plan defines the safety analysis reports that will be needed to complete ES construction and testing. The analysis work is stopped sending approved procedures.
L6J1L	SAFETY PROTECTION PLAN		N	4			N	
L6J13	ADMINISTER PRP REVIEWS		N	2,4			N	

APPROVAL

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		CAT	ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		STOP?	Y N		(1-6)	Y N	
L6J16	SAFETY ENGINEER TO SUPPORT SECOND SHAFT SCOPING STUDY AND GASSY MINE STUDY		N	6		N	Response to stop work order for Exploratory Shaft Design Basis Study. There are no technical procedures required to control the work.
L6J17	SITE DEPARTMENT SUPPORT FOR WATER INFLOW AND METHANE STUDY		N	6		N	The management procedures to control the work are the following: Computational Brief Supporting Document Peer Review
L6J18	PROJECT ENGINEERING SUPPORT TO THE FLEXIBILITY STUDY		N	6		N	The requirements can be traced to DOE-RL direction resulting from an October design review meeting with DOE-HQ.
L6J19	DESIGN ENGINEERING SUPPORT TO THE FLEXIBILITY, SECOND SHAFT SCOPING, AND GASSY MINE STUDIES		N	6		N	Resumes for the participants are on file and indicate the education and/or experience necessary for the task. The individuals have read the procedures applicable to the task. Equipment/facility records, etc are not applicable to this task. It is recommended that the technical work on the Design Basis Study continue up to where the procedures are required. At that time if the required procedures were not in place all work would stop until the deficiencies have been corrected.

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION	
		STOP?	CAT	ITS/IWL			
		Y	N	(1-6)	Y	N	
L6K3Y	DESIGN OF CLUSTER TRACER/INJECTION TEST		N	6	Y		SEE ATTACHED INTERNAL LETTER, NO 75231-86-034 REF EXEPTION TO STOP WORK ORDER FOR DESIGN OF CLUSTER INJECTION TRACER and CHAMBER TEST
L6K3Z	DESIGN OF CHAMBER TEST		N	6	Y		
L6K3X	MONITOR CLUSTER TRACER/INJECTION TEST CONTRACTS		N	6	Y		

Internal Letter



Rockwell International

Date May 9, 1986

No . 75231-86-034

TO: (Name, Organization, Internal Address)

. D. D. Dorsey
. Exploratory Shaft Program
. MO-317/300 Area

FROM: (Name, Organization, Internal Address, Phone)

. R. M. Craig
. Physical Hydrology Unit
. PBB/1100 Area
. 6-2292

Subject . Exception to Stop Work Order for Design of Cluster Injection/
Tracer Test and Chamber Test for WBS Work Package Numbers
L6K3Y and L6K3Z

You have informally provided a list of questions that should be answered in requesting an exception to the Stop Work Order for WBS Package Numbers L6K3Y and L6K3Z and have requested responses to them. I am providing the following responses to these questions as they apply to conceptual design of the Cluster Injection/Tracer Test and Chamber Test in the Exploratory Shaft:

What management and technical procedures control the work? The design of the Cluster Injection/Tracer Test is administered under the statement of work (SOW) and terms of subcontract SA-980. The design of the Chamber Test is controlled under the SOW and terms of subcontract SA-981. The Basalt Waste Isolation Project (BWIP) Quality Assurance (QA) Requirements Document is used to address quality assurance concerns. Numerous procedures contained in the BWIP Quality Assurance Program Manual (RHO-BW-MA-14) guide the performance and review of the design effort. Applicable procedures are addressed in the QA program manual for each contract (see next question). Review of the design is also controlled by RHO-BW-MA-14.

Are quality assurance programs and procedures in place to control the work? Both contracts have quality assurance programs and procedures in place. The QA Manual for subcontract SA-980 (Cluster Test) was approved by BWIP QA on January 30, 1986 (internal letter 12170-TWN-86-016). The QA Manual for subcontract SA-981 (Chamber Test) has been submitted to BWIP and is awaiting approval by Quality Assurance.

Are approved requirements traceable to project needs with appropriate performance allocations? The Exploratory Shaft Test Plan was used as the source document for test design requirements. Updated requirements and data needs have been documented in internal letters 75120-86-035, 74100-B5-86-029, and 74110-85-014.

Are personnel properly trained and qualified? Personnel performing the test designs for the cluster injection/tracer test and chamber test are properly qualified to perform the design. The qualifications of each person working on the design were submitted by each subcontractor with their proposal. Any substitutions or replacements of key personnel cannot be done until their qualifications are submitted to BWIP, and approval has been granted by BWIP.



Rockwell
International

D. D. Dorsey

Page 2

May 9, 1986

Do equipment/facility records, checkout, calibration, qualifications, and certification exist? These contracts cover a conceptual design effort and the use of no equipment or facility is involved. The design of the equipment and instrumentation provided for in the subcontracts will include calibration criteria.

I hope these responses will provide the information you need. Please contact me at 6-2292 if you need more information.

R. M. Craig, Staff Scientist
Physical Hydrology Unit

RMC/wm

cc: S. M. Baker
L. S. Leonhart
D. J. Moak
BRMC(2)
LB

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
L6A1A,	Program management of ES Programmatic Activities	N	4	N	N	ADMINISTRATIVE ACTIVITIES (MANAGEMENT) i.e. planning, budgeting STAFFING, ETC.
L6A1C,	ES Program CONST- RUCTION MANAGEMENT	N	4	N	N	AS ABOVE
L6A1E,	SUPPORT TO CONSTRUCTION MANAGER (M-K) OFFICE Supplies & MISC MAT'Ls	N	4	N	N	AS ABOVE
L6A1M,	MANAGEMENT OF ES ENGINEERING SUPPORT	N	4	N	N	AS ABOVE
L6A1W,	PROVIDE COST CONTROL & ANALYSIS FOR ES	N	4	N	N	AS ABOVE
L6A1X,	PROVIDE IH'S SUPPORT TO DESIGN REVIEWS ES TEST PLAN & OTHER ES ISSUES AS REQ'd	N	4	N	N	AS ABOVE

STOP WORK ANALYSIS



APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP2		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N	Y	
L6A11,	SUPPORT TO ES Program Management		N	4		N	N	ADMINISTRATIVE ACTIVITIES (BWIP DIRECTORS OFFICE) i.e. planning, budgeting, STAFFING ETC
L6A12,	TECHNICAL SUPPORT & COORDINATION OF THE ES PROGRAM		N	4		N	N	AS ABOVE
L6A13,	SPECIAL Project COORDINATION & IMPLEMENTATION FOR THE ES PROGRAM		N	4		N	N	AS ABOVE
L6A14,	PLANNING Support FOR Cost & Schedule CONTROL & ANALYSIS FOR THE ES PROGRAM		N	4		N	N	AS ABOVE
L6A2A	SUPPORT TECHNICAL INTERACTIONS WITH OUTSIDE AGENCIES		N	4		N	N	AS ABOVE

STOP WORK ANALYSIS

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APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW? Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L6A3A	SUPPORT PROVIDED IN RESPONSE TO UNRAINED ACTIVITIES	N	4	N	N	ADMINISTRATIVE ACTIVITIES (MANAGEMENT SUPPORT) I.E. planning, budgeting, STAFFING ETC
L6AIM	1. Management & INTEGRATION 2. DOE LICENSE WORKSHOP	N	4		N	AS ABOVE
L6A1H	1. Support to ES DRILLING a. SPIKE b. DRILLING TOOLS c. RIG MODES d. DRILLING PARA- METERS 2. GENERAL Support TO CONSTRUCTION	N	4		N	AS ABOVE

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L6K3R	Project management FOR GROUT SEALS		N	4		N	ADMINISTRATIVE ACTIVITIES(MANAGEMENT SUPPORT) i.e. planning, budgeting, STAFFING ETC.
L6K3Z	Project management for hydrologic test ACTIVITIES		N	4		N	AS ABOVE
L6K4Y	Administration AND PLANNING FOR GEO- MECHANICS TESTING		N	4		N	AS ABOVE
L6K4A	INFORMATION SYSTEM SUPPORT TO GEO MECHANICS TESTING		N	4		N	AS ABOVE
L6K4B	INDUSTRIAL ENGINE- ERING SUPPORT TO LABS		N	4		N	AS ABOVE
L6K4Q	DESIGN DWGS FOR LAB EXPANSION		N	4		N	AS ABOVE
L6K4T	LAB EXPANSION		N	4		N	SPACE ACQUISITION ACTIVITY

STOP WORK ANALYSIS

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APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW1?		JUSTIFICATION FOR EXCEPTION	
		Y N (1-6)	Y N		
LG AIR	PROVIDE IH&S Support to ES Program FOR ENVIRONMENTAL MONITORING ACTIVITIES	N	3	N	EXISTING SAFETY PROGRAM PERFORMED TO APPROVED RHO PROCEDURES USING PERSONNEL MEETING RHO ENVIRONMENTAL TRAINING REQMT'S
LGJ3A	ES ELECTRICAL POWER COSTS	N	3	N	ONGOING MAINTAINANCE ACTIVITIES ADMINISTERED AND PERFORMED PER EXISTING POLICYS & PROCEDURES
LGJ3C	MAINTENANCE OF ES-1 HOIST SYSTEM ELECTRICAL COMPONENTS	N	3	N	AS ABOVE
LGJ3D	MAINTENANCE OF ES- SITE & ARMY LOOP ROAD	N	3	N	AS ABOVE
LGJ3E	MAINTENANCE OF ES-1 HOIST MECHANICAL COMPONENTS	N	3	N	AS ABOVE

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP2		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L6J3F	ES SITE ELECTRICAL MAINTENANCE		N	3		N		ONGOING MAINTENANCE ACTIVITIES ADMINISTERED AND PERFORMED BY TRAINED PERSONNEL TO EXISTING PROCEDURES
LLJ3G	JANITORIAL SERVICES FOR ES SITE		N	3		N		AS ABOVE
L6K3A	NSTF Maintenance SUPPORT		N	3		N		AS ABOVE
L6K44	NSTF Maintenance		N	3		N		AS ABOVE
L6K45	FAB SHOP SUPPORT TO NSTF & LABS		N	3		N		AS ABOVE
L6K4P	NSTF MONTHLY INSPECTION		N	3		N		AS ABOVE

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT ITS/ITWIZ		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L6K4F	PROCEDURE DEVELOPMENT	N	2		N	CONTINUE WITH Development OF Procedures
L6K47-	Procedure development	N	2		N	AS ABOVE
L6K4R	PROCEDURE DEVELOPMENT	N	2		N	AS ABOVE
L6K4W	Procedure Development	N	2		N	AS ABOVE
L6K4X	Procedure Development	N	2		N	AS ABOVE

STOP WORK ANALYSIS

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APPROVAL

JUSTIFICATION FOR
EXCEPTION

WBS WORK
PKG #

BRIEF WORK
DESCRIPTION

EXC
STOP? CAT ITS/ITW12
Y N (1-6) Y N

LLA1K/

MANAGEMENT OF
ADVANCED CONSTRUCTION
(LINER DOCUMENTATION
RESOLUTION)

N

2

N

Management of advanced long lead procurement. This activity is necessary to achieve adequate implementation of BWIP QA requirements. The task includes closing of open documentation issues requiring approval by the A/E for the 72/112 inch casing fabrication necessary to complete NQA-1 code and BWIP QA requirements. Current BWIP procedures identified in Rockwell BW-MA-14 (7-402 and 15-103) control work activities. Activities are essential for the project to close fabrication documentation of the ESF first shaft casing and are imprudent to stop at this time.

Supports programmatic milestone for start of ESF construction 5/87.

LLK3L,

KEH engineering
drawing support
TO HYDROLOGIC
TESTING

N

2

N

Engineering drawing support is 80% complete. Additional engineering support will not occur beyond the scope of the current work order to fund activities.

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC	CAT		ITS/ITW	JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L6K43	NSTF SUPPORT TO GEOMECHANICS TESTING		N	2		N		Preparation OF DEVELOPMENT TEST PLANNING AND CONTROL DOCUMENTS
L6K4E	MODELING & ANALYSIS SUPPORT FOR GEO- MECHANICAL TEST		N	5		N		SENSITIVITY & ANALYSIS STUDIES IN SUPPORT OF THE GMC WHICH SUPPORTS THE SCP BY REFERENCE
L6K4G	OVERCORING TEST INPUT TO GEOMECH- ANICS CHARACTER- IZATION PLAN		N	5		N		THE GEOMECHANICS CHARACTERIZATION PLAN SUPPORTS THE SCP BY REFERENCE
L6K4D	HYDRAULIC FRACTURING INPUT TO GEOMECH- ANICS CHARACTERIZATION PLAN		N	5		N		AS ABOVE
L6K4H	FLATJACK TEST PLAN- NING IN SUPPORT OF GEOMECHANICS CHARACTERIZATION PLAN Preparation		N	5		N		AS ABOVE

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L6K4N/	PLATE BEARING, TEST PLANNING IN SUPPORT OF GEOMECHANICS CHARACTERIZATION PLAN PREPARATION (GCP)		N	5		N	Preparation OF GEOMECHANICS CHARACT- ERIZATION PLAN Supports SCP BY REFERENCE
L6K46/	BOREHOLE JACKING, TEST PLANNING		N	5		N	AS ABOVE
L6K4L/	THERMAL CONDUCT- IVITY TESTS INPUT TO GCP		N	5		N	AS ABOVE
L6K4L/	CANNISTER SCALE HEATER TEST INPUT TO GCP		N	5		N	AS ABOVE
L6K4P/	INPUT TO GCP		N	5		N	AS ABOVE
L6K4F/	INPUT TO GCP		N	5		N	AS ABOVE
L6K47/	INPUT TO GCP		N	5		N	AS ABOVE
L6K4R	INPUT TO GCP		N	5		N	AS ABOVE
L6K4W/	INPUT TO GCP		N	5		N	AS ABOVE
L6K4X/	INPUT TO GCP		N	5		N	AS ABOVE

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
LGAI D -	CONSTRUCTION STAFF TO SUPPORT ES PROGRAM	Y					STOPPED AS NOT QUALIFIED UNDER ANY EXEMPTIONS. MANAGEMENT CONTROL OF WORK WILL BE REVIEWED AND UPGRADED AS REQUIRED DURING RESTART
LGAI N -	DESIGN CONSULTANT FOR ES LINER LICENSING	Y					AS ABOVE
LGAI T -	ENGINEERING SERVICES COBB ENGINEERING	Y					AS ABOVE
LGAI Y	ESTABLISH AND MAINTAIN FOR THE ES A QA PROGRAM IN ACCORDANCE WITH NRC REQUIREMENTS	Y					WORK PACKAGE CLOSED JANUARY 1986

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? CAT Y N (1-6)	EXC	ITS/ITWIZ Y N	JUSTIFICATION FOR EXCEPTION
L6K5A-	DATA ACQUISITION SYSTEM	Y			STOPPED AS NOT QUALIFIED UNDER ANY EXEMPTIONS, MANAGEMENT CONTROL OF WORK WILL BE REVIEWED AND UPGRADED AS REQD DURING RESTART
L6A1L-	MANAGEMENT OF DEFINITIVE DESIGN	Y			AS ABOVE

STOP WORK ANALYSIS

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT		HIS/IIW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L6J2A	MANAGE & Coordinate FACILITY OPERATIONS	Y						STOPPED AS NOT QUALIFIED UNDER ANY EXEMPTIONS, MANAGEMENT CONTROL OF WORK WILL BE REVIEWED AND UPGRADED AS REQUIRED DURING RESTART AS ABOVE
L6J2C	DEVELOP & IMPLEMENT TRAINING PROGRAM FOR ES	Y						
L6K3C	CONCEPTUAL DESIGN OF HYDROLOGIC TESTS FOR EXPLORATORY BOREHOLE	Y						AS ABOVE
L6K3D	PROCURE EXPLORATORY BOREHOLE TEST EQUIP.	Y						AS ABOVE
L6K3E	FINAL DESIGN FOR EXPLORATORY BOREHOLE	Y						AS ABOVE
L6K3F	Prepare drilling INSTRUCTIONS FOR THE EXPLORATORY BOREHOLE	Y						AS ABOVE
L6K3G	DESIGN & Procure BLOWOUT PREVENTERS	Y						AS ABOVE
L6K3H	WORK DECK DESIGN CONTRACT	Y						AS ABOVE
L6K3I	PORTHOLE TEST EQUIP MENT design & Procedure development	Y						AS ABOVE

STOP WORK ANALYSIS

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APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITWL?				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L6K3K	FINAL DESIGN and PROCUREMENT OF BOTHOLE DRILLING BLOWOUT PREVENTERS	Y					STOPPED AS NOT QUALIFIED UNDER ANY EXEMPTIONS, MANAGEMENT CONTROL OF WORK WILL BE REVIEWED AND upgraded AS Required during restart
L6K3M	SEAL RING TESTING	Y					AS ABOVE
L6K3H	PERFORMANCE TESTING OF GROUT SEALS	Y					AS ABOVE
L6K3P	CALIBRATION OF MTS/ BALDWIN load frame	Y					AS ABOVE
L6K3T	CHEMICAL ANALYSIS OF CEMENT SAMPLES	Y					AS ABOVE
L6K3I	TECHNICAL SERVICES/ DRILLING CONSULTANTS	Y					AS ABOVE
L6K34	Procure DRILLING & TEST EQUIPMENT	Y					AS ABOVE
L6K4B	PLANT ENGINEERING SUPPORT FOR NSTF EOS	Y					AS ABOVE
L6K4C	DRILLING & TESTING SUPPORT TO GEOMECHANICS TESTING	Y					AS ABOVE

STOP WORK ANALYSIS

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[Signature]

APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC.				JUSTIFICATION FOR EXCEPTION
		STOP CAT	ITS/ITWIZ	Y	N	
L6K4G	OVERCORING TESTS NSTF DEVELOPMENT TESTS	Y				STOPPED AS NOT QUALIFIED UNDER ANY EXEMPTION, MANAGEMENT CONTROL OF WORK WILL BE REVIEWED AND UPGRADED AS REQUIRED DURING RESTART
L6K4G	OVERCORING TEST DESIGN & DEVELOP- MENT ACTIVITIES	Y				AS ABOVE
L6K4D	HYDRAULIC FRACTURING TEST DEVELOPMENT WORK	Y				AS ABOVE
L6K4H	FLAT JACK TEST DESIGN	Y				AS ABOVE
L6K4N	PLATE BEARING TEST DESIGN	Y				AS ABOVE
L6K4G	BOREHOLE JACKING TEST DESIGN	Y				AS ABOVE
L6K4I	Pre CONCEPTUAL Plan development ON OPTICAL DEFORMATION MEASUREMENT SYSTEM	Y				AS ABOVE
L6K4L	THERMAL CONDUCTIVITY TEST DESIGN ACTIVITIES	Y				AS ABOVE

STOP WORK ANALYSIS



APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/ITW/2 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L6K4L-	THERMAL CONDUCTIVITY TEST, NSTF DEVELOPMENT TESTS	Y				STOPPED AS NOT QUALIFIED UNDER ANY EXEMPTION, MANAGEMENT CONTROL OF WORK WILL BE REVIEWED AND UPGRADED AS Required during Restart.
L6K4L-	CANNISTER SCALE HEATER TEST, TEST DESIGN ACTIVITIES	Y				AS ABOVE
L6K42-	D.A.S. COORDINATION	Y				AS ABOVE
L6K4K-	FACILITY & TEST DESIGN Coordination	Y				AS ABOVE
L6K4P-	NSTF MODIFICATION	Y				AS ABOVE
L6K4F-	MINE BY TEST	Y				AS ABOVE
L6K4F-	TDR	Y				AS ABOVE
L6K4F-	CONCEPTUAL DESIGN	Y				AS ABOVE
L6K4F-	DETAILED DESIGN	Y				AS ABOVE
L6K47-	ENGINEERING Geophysics TDR's	Y				AS ABOVE
L6K4R-	ROCK SUPPORT & INFO- RMATION MONITORING TDR	Y				AS ABOVE
L6K4W-	CONCEPTUAL DESIGN	Y				AS ABOVE

STOP WORK ANALYSIS

N. Steyer

END FUNCTION MOR APPROVAL

WBS WORK PKB #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L6K4H	Thermal Conductivity test, design activities.	X		6			X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4L	Thermal Conductivity test, NSTF development tests	X		6			X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4L	Thermal Conductivity Tests, input to the Geomechanics Characterization Plan.	X		5			X	The Geomechanics Characterization Plan supports the SCP by reference.
L6K4L	Canister-Scale Heater test, test design activities.	X		6			X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4L	Canister-Scale Heater test, input to Geomechanics Characterization Plan.			5			X	The Geomechanics Characterization Plan supports the SCP by reference.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MOR APPROVAL

WBS WORK PKB #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	Y	N	
L6K4H	Flat Jack Design	X	6			X		It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4H	Procurement of long lead and custom components for flat jack systems.	X	6			X		Procurement of long lead and custom fabricated components which are near delivery should be allowed due to excessive cost impact of termination and re-ordering in future.
L6K4H	Flat Jack test planning in support of Geomechanics Characterization Plan Preparation	X	5			X		Preparation of Geomechanics Characterization Plan supports SCP by reference.
L6K4N	Plate Bearing test design	X	6			X		It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4N	Plate bearing test planning in support of Geomechanics Characterization Plan preparation.	X	5			X		Preparation of Geomechanics Characterization Plan supports SCP by reference.
L6K46	Borehole Jacking test design	X	6			X		It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K46	Borehole Jacking test planning in support of Geomechanics Characterization Plan preparation.	X	5			X		Preparation of Geomechanics Characterization Plan supports SCP by reference.

5/5/86
JTM

STOP WORK ANALYSIS

N. Steger

END FUNCTION MOR APPROVAL

WBS WORK PKG #		BRIEF WORK DESCRIPTION		STOP2 Y N (1-6)		EXC CAT		ITS/ITW12 Y N		JUSTIFICATION FOR EXCEPTION	
L6K4J	Development of Remote Data Logger Coordinate, identify, develop and test in-situ instrumentation for the Geomechanical testing effort.				X		6			X	The development effort on the Remote Data Logger has progressed to the final configuration of the instrumentation package and fabrication of the finished product. This effort has been accomplished primarily by two individuals of the contractor, the Westinghouse Hanford Company. These two individuals are vital to the successful completion of the task. If this work is stopped now, one of these individuals will be terminated and the other one will be assigned to other work and will not be available, at a later date, to finish this task. Loss of them, at this late stage of the instruments development, would incur a schedular and financial penalty out of proportion to the cost of completing the task.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PK# *	BRIEF WORK DESCRIPTION	EXC		LTS/LTW12		JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	Y	N	
L6K4J	<p>Characterization of Thermal Expansion of Composite Graphite Rods</p> <p>Coordinate, identify, develop and test in-situ instrumentation for the Geomechanical testing effort.</p>	X	6		X	<p>The development effort for characterization of the subject Graphite Rod has progressed through the Request for Proposal, preparation of sole source supplier justification and approval, and preparation of the Procurement documentation; it is ready to "go out the door". This procurement meets all current requirements for Quality Assurance, testing and document control. The testing will be done by the supplier who developed the graphite rod for use in Multiple Position Borehole Extensometers (MPBX) and will extend the testing of the operating envelope from currently tested temperatures of 150° C to BWIP required temperatures of 300° C. The suppliers work load is such that if we cancel or delay proceeding with this contract now, he will not be able to do the testing in a time frame that will let us support subsequent instrument development work in time to meet Exploratory Shaft and Repository instrumentation requirements. Since the costs incurred by this testing is approximately \$40,000 and the costs of recovering from cancellation or delay are estimated at approximately the amount, it is expedient to continue with this activity.</p>

STOP WORK ANALYSIS

N. Steger
END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT US/IL/IL2				JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L6K4L	Conduct Design and Development Testing on the Thermal Conductivity Probe	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4Y	Administration and Planning for Geomechanics Testing	X	4		X	Formulates and produces plans including schedules, budgets, and interfaces for In Situ Geomechanics Testing activities.
L6K4A	Information System Support to Geomechanics Testing	X	4		X	Planning and Administration Support.
L6K4B	Plant Engineering Support for NSTF EO's in Support of Geomechanics Development Testing	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4C	Drilling and Testing Support to Geomechanics Testing	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4E	Modelling and Analysis Support for Geomechanics Test	X	5		X	Sensitivity and analysis studies in support of the Geomechanics plan which supports the SCP by reference.

5/5/86
JTM

STOP WORK ANALYSIS

N. Steger

END FUNCTION FOR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW1?		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	Y	N	
L6K4M	Study alternative methods of deflection measurements in Basalt Administer the deflectometer development, specification, and prototype deflectometer acquisition.		X	6			X	The contract with the Westinghouse Hanford Company is approximately 95% complete. Only receipt of documentation remains to be completed. Termination and subsequent resumption costs would exceed the cost of non-stop completion.
L6K4I	Study alternative methods of applying optical measurement techniques to deformation measuring systems Prepare Plan of Action and develop pre-conceptual development on optical deformation measurement system (ODMS)	X					X	Action only in preliminary investigations stage and will be stopped with no significant impact to the Project.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PK# #	BRIEF WORK DESCRIPTION	EXC STOP? CAT		IIS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L6K4P	NSTF Modification	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	NSTF Monthly Inspection	X	3	x		This work is safety required
	NSTF Input to GCP	X	5		X	This activity supports the SCP by reference.
L6K4F	Mine-by Test					
	TDR	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	Conceptual Design	X	6		X	
	Detailed Design	X	6		X	
	Procedure Development	X	2		X	Continue with planning activities and procedure development.
	Input to GCP & EP's	X	5		X	This activity supports the SCP by reference.
L6K4F	Engineering Geophysics					
	TDR's	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	Procedure Development	X	2		X	Continue with planning activities and procedure development.
	Input to GCP & EP's	X	5		X	Continue with planning activities in support of the Geomechanics Characterization Plan and Engineering Plan which support the SCP by reference.
L6K4R	Rock support and deformation monitoring					
L6K4W	TDR					
L6K4X	Conceptual Design	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	Procedure Development	X	2		X	Continue with planning activities and procedure development.
	Input to GCP & EP's	X	5		X	Input support the SCP by reference.

STOP WORK ANALYSIS

N. Steger
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT US/ILY/L2				JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L6K4Q	Provide Design Drawing for the Basalt Research Lab Expansion for the Rock Mechanics Lab	X	4 & 6		X	Facility Modifications work is over 90% complete. Low management risk is incurred by continuance of this activity as review of in place plans and procedures for BOARD compliance should reveal that no rework of these procedures will be required. Termination and subsequent resumption costs would exceed the cost of non-stop completion.
L6K4L	Thermal Conductivity Test Planning, Mathematical Analysis of Thermal Probe	X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW?		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	Y	N	
L6K4R	Rock Support Monitoring TDRs and Design	X				X		Does not qualify to continue under stipulated conditions
L6K4T	Rock Mechanics Laboratory Mods. & Procedure Preparation for ES Sample Testing	X		2&6		X		It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4W	Rock Mass Classification	X		6		X		It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
L6K4X	Deformation Monitoring TDR and Design	X		6		X		It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.

STOP WORK ANALYSIS

N. Steger

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW1?	JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N		
L6K4T	Rock Mechanics Laboratory Expansion		X	4		X	Space acquisition activity
L6K42	DAS Coordination	X				X	Does not qualify to continue under stipulated conditions
L6K43	NSTF Support to Geo- mechanics Testing. 1. Test		X	6		X	It would be imprudent to stop this activity because: (1) the work is needed to support the exploratory shaft drilling and testing schedule, (2) the procedures that govern this work are considered adequate, (3) the technical work is relatively insensitive to the needed project-wide improvements in management and technical prerequisites, (4) the nature of the work permits retrofit if necessary for licensing-related reasons, and (5) associated personnel are not well-suited for stop-work recovery activities.
	2. Procedures		X	2		X	Preparation of Development and Test Planning and control procedures
L6K44	NSTF Maintenance		X	3		X	NSTF Maintenance
L6K45	Fab. Shop Support to NSTF and Labs		X	3		X	NSTF and Lab Maintenance
L6K46	Industrial Engineering Support to Labs		X	4		X	Space Acquisition Activity

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
LLK4B	OVERCoring TEST, NSF Development tests	X				X	
LLK4B	OVERCoring TEST, TEST DESIGN AND DEVELOPMENT ACTIVITIES	X				X	
LCX4B	OVERCoring TEST, INPUT TO GEOMECHANICS CHARACTERIZATION PLAN		X	5		X	THE GEOMECHANICS CHARACTERIZATION PLAN SUPPORTS THE SCP BY REFERENCE
LLK4B	HYDRAULIC FRACTURING, TEST DEVELOPMENT WORK	X				X	
STREET LLK4D	HYDRAULIC FRACTURING, DESIGN OF STRADDLE PIER/ BOREHOLE DEFORMATION GAGE		X	6		X	WORK ORDER TO NESTINGHOUSE (CV6824), NOT PRUDENT TO STOP WORK AT THIS TIME, DELAY WILL RESULT IN LOSS OF CONTINUITY OF PERSONNEL ASSIGNED TO THIS DESIGN EFFORT, WORK IS NEARING COMPLETION & WILL COST MORE TO RESTART THEN TO COMPLETE AT THIS TIME
LCX4D	HYDRAULIC FRACTURING, DESIGN INPUT TO GEOMECHANICS CHARACTERIZATION PLAN		X	5		X	THE GEO MECHANICS CHARACTERIZATION PLAN SUPPORTS THE SCP BY REFERENCE

23
Impact of BWIP stop work order, 5/5/86
Test Engineering and Development, VHC

As a result of the BWIP stop work order Test Engineering must reassign or terminate two individuals key to the BWIP instrument and equipment development programs unless funding is continued for other efforts such as the recovery planning.

R.E. Bauer - Mech Engr - 100% BWIP supported

Programs:

L6K4H Slot Cutter
L6K4H Flat Jack
L6K4D Straddle Packer Deformation Gauge

Programmatic impact if Bauer is lost

L6K4H * Slot Cutter - design 80% complete, some items ordered

Stop work will also result in loss of designer (turns 65 in October)

Estimated additional cost to bring new engineering team team to current level is \$50,000 (4 man months).

L6K4H * Flat Jack

Elastomer design 80% complete, development testing underway.

Estimated additional cost to stop and restart \$25,000. Considerable risk Sarata Engineering will be unable to resume effort on demand, we're unaware of any other company able to pick up this development.

Metal jack design 80% complete; test parts in shops for fabrication.

Loss of Bauer will greatly impact this effort, estimated additional cost to recover is \$25,000 (2 man months)

L6K4D * Straddle packer deformation gauge

Design 20% complete, loss of Bauer and designer will result in essentially a new start, additional cost \$12,000

RV Truitt - Electronics Engr, 75% BWIP supported

Truitt was hired specifically to assist in BWIP instrument development. Work stoppage will result in reassignment or termination if unable to reassign.

Programmatic impact

L6K4G * Door stopper and EDG remote logger, electrical design 90% complete, ready to purchase surface mounted electronic circuitry. Estimated additional cost to find a new qualified engineer and bring to current project status is \$50,000. The cost to complete with no interruption is estimated at \$40,000

L6K4G * CSIRO and other logging devices
These projects have not started yet so the only impact of a stoppage will be the potential loss of Truitt. This work is a follow on to the door stopper logger, and to lose Truitt will impact the development.

1. The listed existing BWIP management and technical control procedures are utilized by the Rock Mechanics Group in the performance and control of design and development activities for in situ geomechanical tests. These procedures fulfill the requirements for design and test control stipulated in the BWIP Quality Assurance Requirements Document (BQARD) adequately enough to justify the continuation of this work so that the tests will be ready to support the ES Program test schedule. Little or no risk of rework after the BWIP has completed the review and upgrade of all plans and procedures for BQARD compliance is anticipated. Proof of principal and developmental testing only is currently in process. There is no demonstration, qualification, certification, or training tests planned for FY 1986.

QAPP's

- 3-302 BWIP Design Review Process**
- 3-403 Record of Design Review Processing**
- 12-101 Measuring and Test Equipment Calibration**
- 6-101 Supporting Document Description**
- 17-101 BWIP Records Management System**
- 6-106 Controlled Notebooks**
- 3-201 Computational Briefs**
- 17-102 Recording Data for QA Records**
- 4-401 Control of DOE-RL Administered Contracts**
- 4-402 QA Review of Procurement Documents**
- 15-104 Disposition of NCR's and Supplier Deviation Requests**
- 4-403 QA Requirements, External Work Orders**
- 3-301 Technical Review**

3-301.1 Peer Review
 3-101 Technical Baseline Identification
 3-501 Interface Control and Documentation
 6-103 BWIP Engineering Order System
 2-105 NSTF Test Procedure
 11-201 Test Facility Operating Plan
 5-103 Test and Operations Procedure Control
 11-207 BWIP ESF Test Design Administration and Control

AG's

3-103 Recording of Meeting Minutes

2. The BQARD (MA-3) establishes the requirements and the procedures in the QAPP-MA-14 Manual implement these requirements. These procedures are being reviewed and revised as necessary to comply, but as indicated above they are adequate for the developmental phase of the Geomechanics in situ test program. There is little management risk that any rework will be required once this review is complete.

3. Approved requirements for the Geomechanics in situ tests will not be available until later in FY 86 when the Geomechanics Characterization Plan (Science Plan) is completed and released. In the interim there is ample management confidence that the planned activities will be justified based on:

The current level of completeness of the GCP
 The SCP Conceptual Design (Section 8)
 The draft version of Chapter 8.3 of the SCP
 The Exploratory Shaft Test Plan
 The Systems Requirements Tree
 The draft Design Methodology
 The Site Characterization Report
 Task V, Engineering Study No. 8 (RKE/PB)

4. The people performing this work have graduate degrees in the geotechnical disciplines. Senior personnel have numerous years of practical experience. Qualifications are documented in a Department file. Documentation of familiarity and understanding of the above procedures is also on file. No further training is deemed necessary for this phase of the Geomechanics in situ test program.

5. Development testing is and will be conducted with calibrated and controlled equipment in accordance with 12-101. WHC and RHO Production Support personnel will perform these calibrations using existing procedures. Qualification and certification testing will be performed as part of the demonstration test program planned during subsequent FYs after the completion of development and test design work.

Rock Mechanics Group
Required Restart Activities
Plan of action for Rock Mechanics Activities

The actions required to restart the tasks stopped because of the "stop Work order" are, in approximate order of priority, the following:

A. Procedure review and rewrite:

1. Review all procedures pertaining to Rock Mechanics Group work.
2. Review the procedure hierarchy to assure that the simplest, most complete but cost and schedule effective hierarchy is in place; correct as necessary.
3. Assure that each procedure provides complete directions on how to perform the activity with minimum cross reference to other pertinent procedures.
4. Assure the no procedures reference other procedures that do not exist at the time of the affected procedures issuance.
5. Determine a priority for rewriting or amending the affected procedures to assure proper direction of activities from the top of the procedure hierarchy.
6. Prepare a reasonable, but expedited, schedule, utilizing available staff from halted activities, to rewrite or amend the affected procedures.
7. Utilize, to the maximum extent possible, the personnel who will be directed by the procedure for reviewing, amending, rewriting and initial reviewing of the procedure; QA should monitor the entire effort.
8. Assure, at the outset, that the procedure defining approval requirements requires only the minimum number of approvals, in addition to QA's, necessary to accomplish the task.

B. Contract, Work Order and contractor review, surveillance and direction:

1. Review all BWIP contracts and Work Orders to assure that necessary guidance is given to assure compliance with governing procurement and contracting procedures.
2. Require a Quality Assurance/Control/Verification audit of contractors, subcontractors, and affected Hanford contractor organizations to ascertain and assure compliance with governing procurement, contracting and quality assurance procedures.
3. Modify contracts, as required, to assure compliance, by the contractors, with the above.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

PBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT		ITS/TW1?		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L6A4C	DESIGN ENGR. SUPPORT FOR READINESS REVIEW.		N	*4		N	CURRENTLY NO ACTIVITY. SUPPORTS READINESS REVIEW AND A/E COORDINATION FOR ESF START OF CONSTRUCTION ACTIVITIES. * NO ACTION IS PLANNED PENDING RESOLUTION OF PREREQUISITES PLAN FOR ESF (L6J1). IMPACTS PROGRAMATIC MILESTONE FOR START OF ES CONSTRUCTION - 5/87.
L6C1B	ACCESS ROAD DEFINITIVE DESIGN		N	*4		N	* NO ACTIVITY ROAD DESIGN IS COMPLETE. STATE APPROVAL IS PENDING DOE-RL ACTION. ROAD DESIGN WAS DESIGNED IN ACCORDANCE WITH HANFORD PLANT STANDARDS.
L6C1C	ZAD ACCESS ROAD ENGR. SUPPORT		N	4		N	NO ACTIVITY SUPPORT TO CONSTRUCTION MANAGER DURING CONSTRUCTION.
L6D1A	DESIGN - ESF CHANGE HOUSE		N	4		N	NO ACTIVITY WILL NOT START PRIOR TO START OF ESF DEFINITIVE DESIGN (L6A1L)
L6J1J	ENGR. SUPPORT TO PREREQUISITES PLAN LA J1111		N	2,4		N	NOT FACILITY & TEST DESIGN RESPONSIBILITY WORK PACKAGE IS MANAGED BY SYSTEMS INTEGRATION DEPT. ACTIVITIES ARE PENDING RESOLUTION OF PREREQUISITES PLAN (L6J1)

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y N	
LGK4H	Flat Jack Test Design	X			X	
LGK4H	Procurement of Long Lead and Custom Components for flat jack systems		X	6	X	Procurement of long lead and custom fabricated components which are near delivery should be allowed due to excessive cost impact of termination and re-ordering in future.
LGK4H	Flat Jack Test planning in support of Geomechanics Characterization Plan preparation		X	5	Y	
LGK4H	Plate Bearing Test Design	X			X	
LGK4H	Plate Bearing Test planning in support of Geomechanics Characterization Plan preparation		X	5	X	Preparation of Geomechanics Characterization Plan supports SCP BY REFERENCE
LGK4H	Borehole Jacking Test Design	X			X	
LGK4H	Borehole Jacking Test planning in support of Geomechanics Characterization plan preparation		X	5	Y	Preparation of Geomechanics Characterization Plan supports SCP BY REFERENCE

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP? CAT		EXC LIS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
<u>L6K4J</u> <i>STOPPED</i>	Coordinate, identify, develop and test in-situ instrumentation for the Geomechanical testing effort.		X	6		X The development effort on the Remote Data Logger has progressed to the final configuration of the instrumentation package and fabrication of the finished product. This effort has been accomplished primarily by two individuals of the contractor, the Westinghouse Hanford Company. These two individuals are vital to the successful completion of the task. If this work is stopped now, one of these individuals will be terminated and the other one will be assigned to other work and will not be available, at a later date, to finish this task. Loss of them, at this late stage of the instruments development, would incur a scheduler and financial penalty out of proportion to the cost of completing the task.
<u>L6K4M</u> <i>STOPPED</i>	Administer the deflectometer development, specification, and prototype deflectometer acquisition.		X	6		X The contract with the Westinghouse Hanford Company is approximately 95% complete. Only receipt of documentation remains to be completed.
L6K4I	Prepare Plan of Action and develop pre-conceptual development on optical deformation measurement system (ODMS)		X			X Action only in preliminary investigations stage and will be stopped with no significant impact to the Project.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

2923.
25

WBS WORK
PKG #

BRIEF WORK
DESCRIPTION

EXC
STOP? CAT ITS/IWI?
Y N (1-6) Y N

JUSTIFICATION FOR
EXCEPTION

LGK4L

STGGR

Thermal Conductivity
Test planning, mathematical
analysis of thermal
probe, work in progress
by KEH Winkler
(CV 6826)

X

6

NOT prudent to stop work as the
analysis is 90% complete, work to
be completed by 5/15/86. Would
cost more to restart this effort
than to complete at this time

STOP WORK ANALYSIS

RT JOHNSON
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?		EXC CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L6J1H	Quality Assurance Support for Exploratory Shaft Pre- requisite Plan Activities---	Y			Y	Y		Work involves planning, staffing, and QA coordination in support of Readiness Review for ES. Need to estab- lish group procedures to govern activities and to de- velop and provide training. - BWIP procedure training - MORT training
L6J1I	Quality Information Control support for the ES Readiness Review	Y			Y	Y		See response L6J1H
L6J1X	QIC support to Readiness Review process	Y			Y	Y		See response L6J1H

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT 115/11W12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L6A1N	DESIGN CONSULTANT FOR EXPLORATORY SHAFT LINER LICENSING		N	TBD	TBD	TO BE PROVIDED
1L6A4A	PLAN, DIRECT, AND ADMINISTER PROGRAM; MAINTAIN PROGRAM PLAN; MONITOR REVIEWS AND RELEASE INTERIM REPORTS		N	TBD	TBD	TO BE PROVIDED
1L6A4E	SUPPORT REQUIREMENTS REVIEW UPDATE INVOLVING REVISED PROGRAM DOCUMENTATION		N	TBD	TBD	TO BE PROVIDED
1L6K1A	COORDINATION OF THE OVERALL ES TESTING PROGRAM ACTIVITIES		N	TBD	TBD	TO BE PROVIDED
1L6K1C	PRESENTATION AND REVISION OF THE ES TEST PLAN (GEOMECHANICS)		N	TBD	TBD	TO BE PROVIDED
1L6K49	ENGINEERING MAINTENANCE SERVICES IN SUPPORT OF GEOMECHANICS DEVELOPMENT TESTING AT THE NSTF		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IWI?				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L6K6A	PREPARE AND ISSUE TEST INSTRUCTIONS FOR FIRST SHAFT CONSTRUCTIBILITY DATA COLLECTION		N	TBD	TBD	TO BE PROVIDED
1L6K6C	COLLECT ES-1 DRILLING DATA AND CHIP SAMPLES DURING SHAFT CONSTRUCTION		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

A. J. Dintzel 5/4/86
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IIWIZ Y N (1-6) Y N	JUSTIFICATION FOR EXCEPTION
L7A3 L7A PROGRAM BASELINE	WBS WORK PACKAGE L7A3 CONTRACT DELETED IN TOTAL FOR FY87		N/A THIS CASE ACCOUNT WAS DELETED AS A WAS COST CENTER
L7A1A DEVELOPE	PROVIDES THE NECESSARY RESOURCES TO PROVIDE PROJECT MGMT. & DIRECTION. IMPLEMENTATION MANAGEMENT AND OPERATIONAL SYSTEMS THAT PROVIDE ADEQUATE CONTROL OF TEST ACTIVITIES AND WHILE PROVIDING A SAFE WORKING ENVIRONMENT, PROMOTING GOOD WORKING HABITS AND INCREASED PRODUCTIVITY	✓ 2 3	X THE ABSENCE OF A COHESIVE PROJECT MANAGEMENT WITHOUT THIS TEAM AND THE IMPLEMENTATION OF A comprehensive scheduling / Work Control System WILL COMPOUND PROBLEMS ARISING IN THESE AREA IN THE PAST, THE IMPLEMENTATION OF THESE SYSTEMS WILL ALLOW DAY TO DAY STATUS REPORTING AND NOT LEAVE THINGS TO HAPPENING. ONCE THE WORK CONTROL CONCEPTS ARE TRIAL RUN DURING NSTF ACTIVITIES, A NATURAL EVOLUTION SHOWS EVOLVE WHERE THESE SYSTEM ARE ADOPTED / ACCEPTED FOR USE DURING ES 1 AND 2 AND ULTIMATELY DURING PERMITS REINTEGRITY CONSTRUCTION AND OPERATIONS IF APPROPRIATE.
NOTE / REMAIN L7A1C	INC L7A WORK PACKAGES DESIGN ENGINEERING FULL FACILITY MGMT. (NSTF AND 2101-M)	PROVIDE GENERAL ✓ 3	X
L7A1D	IMPLEMENTATION ENGINEERING	✓ 2, 3, 4	X
L7A1F L7A1H L7A1K L7A1L (L7A1M through) L7A1N ALL SUPPORT DESIGN OR DOCUMENT REVIEW OF THE GPP'S B-577 B-578	NSTF OPERATING PLAN (FACILITY) BASALT MTL'S RES. LAB. CALIB. SUPPORT BSWP TRANSITION PLAN PREPARE CONCEPTUAL DESIGN DETAILED FULL GPP B-577 (2101-M HWAU UPGRADE)	✓	X SUPPORT DEVELOPMENT OF NEW AND REQUIREMENT FOR ADD MAINTENANCE PROCEDURES - CALIBRATION OF NSTF 2101-M LAB EQUIP REQUIRES TO MEET HIRSHMAN DOCUMENTATION REQUIREMENT - IN WORK AS OF THIS WRITING. PERFORMED BY MEETING HOUSE AND PRODUCTION SUPPORT AS Req'd. PREPARE INTEGRATED TESTS FACILITIES UTILIZATION PLAN THE BASALT RESEARCH LABORATORIES HAVE BEEN TOLERATING POOR LAB AIR QUALITY SINCE THE LAB WERE CONSTRUCTED. BSWP MUST REALIZE THAT 40 YR OLD SWAMP CELLERS AND POOR AIR QUALITY JEOPARDIZES THE CREDIBILITY OF TEST DATA GENERATED. WE CAN NOT FORGET THAT THE LABS WERE CONSTRUCTED INSIDE A WAREHOUSE FACILITY. ENHANCEMENTS TO THE LABORATORIES (2101-M Building) ARE LONG OVERDUE AND CAN NOT BE IGNORED.

(NOTE: L7CIP WAS THE LAST
C-DR FOR RHO TERM. AND LABS. SUPPORT
THIS PROJECT WAS COMPLETED JANUARY 5, 1985
AND THE CAN X CHIPS PROJECT)

STOP WORK ANALYSIS

M. J. Dintel 5/4/86
END FUNCTION MGR APPROVAL

only one I could see that might apply
JUSTIFICATION FOR
EXCEPTION

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITSATWIZ		Y N (1-6)		Y N	JUSTIFICATION FOR EXCEPTION
L7A12	INSTITUTION INTERNATIONAL COST ACCOUNT REPRESENTS THE RESOURCES REQUIRED TO PROVIDE PROJECT (NSF) FOR PUBLIC INFORMATION ACTIVITIES CONDUCTED BY THE NSF. ALSO INCLUDED ARE RESOURCES FOR SPEAKER BUREAU ACTIVITIES.	✓	4			X	THIS WORK PACKAGE (COST ACCOUNT) IS, AND WILL REMAIN, PARAMOUNT TO ^{THE} DOE AND, NATIONAL PROGRAM AND, SPECIFICALLY, THE BASALT WASTE ISOLATION PROJECT TO FAMILIZE THE GENERAL PUBLIC OF CURRENT AND PLANNED ACTIVITIES ASSOCIATED WITH THE CHARACTERIZATION OF HANFORD BASINS (PROVIDED WE ARE A CHOSEN SITE FOR FURTHER CHARACTERIZATION).

STOP WORK ANALYSIS

GSDintsch
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/IWIS		JUSTIFICATION FOR EXCEPTION	
		Y N (1-6)	Y N		
<u>L7A4K</u>	FABRICATION AND SHEET METAL SUPPORT FOR BUIP FACILITIES	✓ 3	X	THE NSTF AND BUIP LABS ^{REQUIRE} NEED FABRICATION AND SHEET METAL SUPPORT FOR MINOR MODIFICATIONS, ETC, AGAIN, A WORK PACKAGE MUST BE IN PLACE OR THIS CRAFTS SERVICE IS LOST OR SO UNTIMELY AS TO IMPACT THE ONGOING PROJECT,	
<u>L7A4L AND L7A4M</u>	THESE WORK PACKAGES SUPPORT GENERAL NSTF OPERATIONAL REQUIREMENTS, NAMELY, <u>INDUSTRIAL HYGIENE</u> AND SAFETY (SAFETY & QA) PROVIDE <u>REQUIRE</u> SAFETY REPORTS AS <u>REQUIRED</u> INDICATED and other safety related documents or issues that may occur.	✓ 2,3	X	REVIEW BY SAFETY AND QUALITY ASSURANCE OF A FORMAL DOCUMENTS REQUIRED BY DOE AND RMO RULES AND REGULATIONS. (L7A4L) <u>L7A4M</u> - DATA TAPE COURIER SERVICE IS TO BE PHASED OUT PARTICULARLY WHEN COMPUTERS ARE CONSOLIDATED DOWN TOWN.	
L7A4N	SCHEDULE SUPPORT AND MATERIAL COORDINATION FOR THE 2101-M/LABORATORY 1. 222-5	✓ 3,	X	THE WORK DESCRIPTION IS SELF EXPLANATORY	
L7A4P	PROVIDE CARPENTER/ PAINTER SUPPORT BUIP NEEDS (FACILITIES MAINTENANCE)	X 3	X	THIS IS (AS ARE MOST OF THE MAINTENANCE ACTIVITIES DETAILED ABOVE) PROVIDED ON AN AS NEEDED, AS FUNDED BASIS. TOTAL WORK PACKAGE IS .3 WY'S FOR FY86.	
L7A4R	MINIMAL SUPPORT FOR FAB SHOPS - TOTAL WP = 1 SHR.	X 3	X	N/A as delineated above (L7A4P)	

STOP WORK ANALYSIS

J. L. Dutch 5/4/86
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION	
		Y N (1-6)	Y N		
L7A4A L7A4C	PROVIDE CAFIS SUPPORT AND MATERIALS TO PERFORM MAINT. AND MODIFICATIONS TO BWIP FACILITIES.	✓ 2, 3	X	THE PRIMARY FUNCTION OF ANY MAINTENANCE FUNCTION IS TO MAINTAIN FACILITY SYSTEMS IN GOOD OPERATING CONDITIONS. Beside the normal maintenance requirement, CURRENT STANDARDS AND REGULATIONS MANDATE REGULAR PREVENTIVE MAINTENANCE IF THE EQUIPMENT IS USED. EVEN ON A PERIODIC BASIS.	
L7A4C	222-S LABORATORY LANDROD MAINTENANCE ASSESSMENT.	✓ 1, 2, 5, 6	X	THE 222-S LABORATORY ASSESSMENT IS REQUIRED IF BWIP IS TO CONTINUE HOT-CELL/TRACER TESTING IN THIS FACILITY. THIS FUNDING PROVIDES GENERAL MAINT. FOR THE FACILITY (OR THAT AREA ORIGINATE TO BWIP). THE 222-S LABS HAVE A DEDICATE MAINTENANCE STAFF THEREFORE ARE NOT COVERED BY THE BWIP FNC. MAINT. GROUP.	
L7A4F	PROVIDE CRANE AND RIGGING SERVICE FOR BWIP FACILITIES	✓ 3	X	SERVICE IS REQUIRED TO POSITION/RELOCATE LARGE PIECES OF EQUIPMENT, WHERE REQUIRED, (I.E. ES, NSTF, BASALT LABS, ETC.) AND A WORK PACKAGE IS REQUIRED. AS THE SITE FUNCTIONAL ORGANIZATIONS NO LONGER RECOGNIZE WORKORDERS - ONLY HENDCUNT REPRESENTED ON LABOR RUNS.	
L7A4G	VENT AND BALANCE SERVICE FOR 211-M LUBRICITIES	✓ 1, 3	X	SAME COMMENT AS ABOVE (L7A4F) PERTAINING TO RE- QUIREMENT FOR A WORK PACKAGE - IF BWIP WANTS GOOD RESPONSE FROM THESE ORGANIZATIONS THEN W.P.'S ARE REQUIRED.	
L7A4H	PROVIDE FABRICATION SHOP'S SCHEDULING SUPPORT FOR MAJOR FACILITY MODS AND FAB. NEEDS OF THE BWIP LABS.	✓ 3	X	SAME COMMENT AS ABOVE (L7A4G)	
L7A4J	INSTRUMENTAL SUPPORT TO NSTF AND 211-M LUBRICITIES	✓ 3	X		

STOP WORK ANALYSIS

J. J. Dintch 5/4/86
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW/2 Y N (1-6) Y N		JUSTIFICATION FOR EXCEPTION
L7A5A AND L7A5C	PROVIDE ON-CALL AND FIXED FEE MAINTENANCE CONTRACTS FOR MAJOR NSTF AND BASALT LAB. EQUIPMENT AND SUBSISTED INSTRUMENTATION.	✓	1,3	X
L7C1	<u>NSTF OPERATIONS</u>	✓		X
L7C1A	NSTF STAFF - 4 TECHNICIANS AND MATERIALS FUNDING TO SUPPORT NSTF NEEDS.	✓	3,6	X
NOTE! THE REMAINING WORK PACKAGES IN CONTACT. L7C1 SUPPORT OPERATIONAL REQUIREMENTS OF THE NSTF. THE TITLES ARE, FOR THE MOST PART, SELF EXPLANATORY.				
THEREFORE I WILL ABBREVIATE OR LEAVE BLANK.				
L7C1C	NSTF ELECTRICAL USAGE	✓	1?	X
L7C1D	SAFETY AND QUALITY ASSURANCE	✓	3	
L7C1E	MONITOR FACILITY ALARMS	✓	"	
L7C1F	ELECTRICAL MAINT. SUPPORT	✓	"	
L7C1H	NSTF MAINTENANCE SCHEDULING SUPPORT	✓	"	
L7C1J	MAINTAIN EXPORT WATER - LINE	✓	"	
L7C1K	MAINTAIN NSTF ACCESS ROAD	✓	"	
L7C1M	MAINTENANCE BACKUP GENERATORS	✓	"	
L7C1N	MAINTAIN NSTF POWERLINE	✓	"	
L7C1P through L7CIW	SUBSTITUTE EFFORT (NSTF MAINTENANCE) - COMPLETED	✓		✓
	REPAIRS			
<p>MAINTENANCE CONTRACTS MUST BE MAINTAINED ON MAJOR OPERATIONAL SYSTEMS SUPPORTING BWIP FACILITIES TO REDUCE UNPLANNED TIME AND EXTEND THE USABLE LIFE OF THE EQUIPMENT.</p> <p>MORE IMPORTANTLY, VALUABLE AND SENSITIVE LABORATORY INSTRUMENTS MUST BE MAINTAINED IN EXCELLENT OPERATING CONDITION TO BOLSTER THE TECHNICAL CREDIBILITY OF THE BWIP.</p> <p>THE NSTF COST ACCOUNT (L7C1) PROVIDES THE RESOURCES (MANPOWER & MATERIALS) TO CONTROL PERSONNEL/VEHICLE ACCESS, OPERATE TEST APPARATUS AND ASSURE COMPLIANCE WITH NSTF OPERATIONAL PROCEDURES AND SAFETY REQUIREMENTS DURING THE PERFORMANCE OF FACILITY ACT.</p> <p>PROVIDES FACILITY ALARM MONITORING DURING OFF-SHIFT HOURS. (3 WY'S)</p> <p>IF ALARM DOES ACTIVATE DURING OFF-SHIFT A ELECTRICAL OPERATOR RESPONDS FROM THE 100 M 200 AKA AREA FIRE-SECTIONS - WITHOUT THIS SERVICE, PERSONNEL WOULD HAVE TO DRIVE 60 MILES ROUND TRIP, IN SOME CASES (MAY), TO FIND NO PROBLEM AT ALL.</p>				

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
1L7A11	DEFENSE HIGH LEVEL WASTE EFFORT	Y			TBD	TBD	TO BE PROVIDED
1L7A1E	OPERATING DOCUMENT CONTROL SUPPORT FOR PROCEDURE ADMINISTRATION AS REQUIRED		N		TBD	TBD	TO BE PROVIDED
1L7A1W	INSTALL HALON 1301 SYSTEM IN COMPUTER BLDG 627N		N		TBD	TBD	TO BE PROVIDED
1L7A1X	ENVIRONMENTAL REGULATION/EVALUATION		N		TBD	TBD	TO BE PROVIDED
1L7A1Y	MAINTENANCE ENGINEERING SUPPORT FOR CALIBRATION OF LAB EQUIPMENT		N		TBD	TBD	TO BE PROVIDED
1L7A2A	PARTICIPATE IN PUBLIC AFFAIRS ACTIVITIES		N		TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L7A3A	SUPPORT UNPLANNED PROGRAM REQUIREMENTS		N	TBD	TBD	TO BE PROVIDED
1L7A4D	PROVIDE FACILITY MAINTENANCE TO 2101-M LABS AS REQUIRED		N	TBD	TBD	TO BE PROVIDED
1L7C1G	PROVIDE PREVENTATIVE MAINTENANCE ON NSTF OPERATIONAL SYSTEMS, CALIBRATE NSTF DATA ACQUISITION EQUIPMENT AS REQUIRED		N	TBD	TBD	TO BE PROVIDED
1L7C1N	PERFORM DETAILED EXAMINATION OF NSTF SHOTCRETE		N	TBD	TBD	TO BE PROVIDED
1L7C1X	FY 85 CARRYOVERY	Y		TBD	TBD	TO BE PROVIDED
1L7D1A	PROVIDE CONSTRUCTION COORDINATION FOR GPP B-577 AND B-578		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

CW STOLLE

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP CAT		US/ITW/2		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L9	Lease 60,000 net square feet for BWIP office and support space (LA-4038)	X		4			X	Office and support space is required to meet staffing projections through fiscal year 1991.
L9	Lease 14,300 net square feet for BWIP office and support space (LA-4026)	X		4			X	Office and support space is required to meet staffing levels in fiscal year 1986.
L9	Lease 12,500 net square feet for BWIP office and support space.	X		4			X	Office and support space is required to meet staffing levels for fiscal year 1986.
L9	Lease 19,300 net square feet for BWIP office and support space.	X		4			X	Office and support space is required to meet staffing levels for fiscal year 1986.
L9A1J	F&IE SUPP DAT	X		4			X	COST ACCOUNT FOR TIME CHARGES BY F&IE FOR LEASE PROCUREMENT
L9A1F	SAME AS L9A1J	X		4			X	SAME AS L9A1J

STOP WORK ANALYSIS

R. T. Johnson
R. T. Johnson
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
L9A3C	Unplanned Activities requested by DOE for QA		N	2		N		Work involves QA coordination and administration of unplanned or special requests from DOE-RL QA for such items as IAC's (Information/Action Control) and other urgent business (Stop Work Assessments) which demand immediate responses.

STOP WORK ANALYSIS RE MAY

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/IIW12				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L9A4C	ILLUSTRATIONS SUPPORT		X	2		N	PRESENTLY CONTROLLED BY ADMINISTRATIVE GUIDE (RHO-BW-MA-16) 5-101, "CONTROL OF DOCUMENT ARTWORK." SCHEDULED FOR CONVERSION TO THE RHO-BW-MA-17 MANUAL BY 5/30/86.
L9A4A	TECHNICAL LIBRARY SUPPORT		X	2		N	PRESENTLY CONTROLLED BY ADMINISTRATIVE GUIDE (RHO-BW-MA-16) 4-202, "BWIP LIBRARY." SCHEDULED FOR CONVERSION TO THE RHO-BW-MA-17 MANUAL BY 5/16/86.

STOP WORK ANALYSIS J. Starr

END FUNCTION MGR APPROVAL

[illegible]

STOP WORK ANALYSIS

W/G KELTNER
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/TWI?		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L9A8A	Project Assurance guidance and assistance to line management to implement the project QA Program		X	2		N	Project Assurance is a key "organization" in guiding and performing the work necessary to upgrade the BWIP management, operating, and quality assurance systems. <i>NO SPECIFIC PROCEDURES ARE INVOLVED. POSITION DESCRIPTIONS HAVE BEEN REVISED.</i>
L9A8C	Develop and implement a comprehensive BWIP <u>Qualification and Training Program</u> to support licensing		X	2		N	
ABD	TRAINING COMMITTEE		Y			N	COMMITTEE DISBANDED; WORK PACKAGES ARE INACTIVE
E							
F							
G							
H							
J							
K							
L							
M							
N							
P							
Q							
R							

STOP WORK ANALYSIS

J. E. Clark *R. Johnson*
END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT ITS/ITW12		JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L9D1M	Direct Management and administration for QA Program Management Group		X	4		N	Work involves planning, staffing, coordination of QA Progr Management Group which is responsible for ensuring upgrade of the QA Program.
L9D1S	Develop and implement QA Plans, manuals, and procedures in support of the QA Program upgrade.		X	2		N	Work is in direct support of upgrading the QA Program for Rockwell, other DOE-RL direct-funded contractors, and Rockwell suppliers.
L9D1G	Participate in national meetings/conferences to define QA requirments specific to BWIP.		X	2		N	Work involves coordinated effort with other prospective repository sites, DOE-HQ, and the NRC to ensure correct application of QA requirements at BWIP.
L9D1W	Maintain QA Plans, manuals and procedures.		X	2	Y		Work involves supporting the upgrading of QA documents to reflect compliance with BQARD requirements. Work must continue to support program development in other organizations.
L9D1X	Monitoring and trending QA Program deficiency documents and reporting information to management.		X	2	Y		Work involves tracking progress on externally generated QA Program deficiency documents such as Audit Findings and Stop Work Orders.
L9D1T	System Engineering Transition Plan	X				N	This WBS Work Package was not funded.

STOP WORK ANALYSIS

K. M. Tominey *R. Johnson*
 END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP CAT ITS/ITWI2				JUSTIFICATION FOR EXCEPTION	
		Y	N	(1-6)	Y		N
L9D2A	Management and administration		X	4		N	The management tasks involved in this work package do not directly affect ITS/ITWI. However, training requirements should be defined and accomplished expeditiously.
L9D2C	Supplier Verification - Preaward Capability Surveys - Supplier Surveillances - Supplier Audits	X			Y		Supplier Evaluation procedures do not exist. See L9D2F. Auditing procedures have been upgraded to meet BQARD. Formal training of audit personnel has been accomplished. All that remains to be done is formal certification which will be completed before any audit is conducted.
L9D2D	Audit - Major Program Validation Audits - Rockwell and Participants		X	2	Y		Auditing procedures have been upgraded to meet BQARD. Formal training of audit personnel has been accomplished. All that remains to be done is formal certification which will be completed before any audit is conducted. Procedures upgraded/new procedures/desk instructions - QAPP 2-201, "BWIP Training Plan" - QAPP 2-202.3, "Qualification of QA Program Audit Personnel" - QAPP 18-101, "QA Audits" Training - Done - Task description/training requirements defined - Training plans - Qualified trainer - Lesson plans - Formal classroom - Written examinations Certification - In preparation
L9D2E	Audit - Minor	X		2	Y		Same justification as L9D2D

STOP WORK ANALYSIS

R. Johnson
 END/FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12 Y N (1-6) Y N				JUSTIFICATION FOR EXCEPTION
L9D2F	Surveillances Internal and External		X	2	Y	New surveillance procedure and training will be expedited. A review to program requirements will be performed to assure all elements have been met. - Procedure revision drafted - pending approval - Training - Task description/training requirements - General code/regulations training/examination (17 staff have taken/passed) Formal Training - QAPP 10-101, "Surveillance Activities" - QAPP 1-210.1, "Stop Work Order" - QAPP 15-102, "Nonconformance Control and Reporting" - QAPP 16-101, "Corrective Action Reports" Information training on desk instruction
L9D2G	Assessments, Consultation and Technical Assistance		X	2	Y	Assessments, consultation and technical assistance must continue to upgrade QA Program. Prepare QA Program validation and certification recommendation and coordinate BWIP QACG meetings and related work. Procedures upgraded/new procedures/desk instructions - QAPP 2-201, "BWIP Training Plan" - QAPP 2-202.3, "Qualification of QA Program Audit Personnel" - QAPP 18-101, "QA Audits" Training - Done - Task description/training requirements defined - Training plans - Qualified trainer - Lesson plans - Formal classroom - Written examinations Certification - In preparation.
L9D2H	Review of Planning Documentation for Internal Work Orders		X			Procedure requires revision. No training performed.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL *R. Johnson*

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITWIZ				JUSTIFICATION FOR EXCEPTION
		Y	N (1-6)	Y	N	
L9D2J	Material Review Board	X		Y		Procedures require revision. Training and member qualification needed.
L9D2K	Training	X	2	Y		Approved training procedure in place for BWIP QA. Training needs to be performed. Certification of trainers needs to be performed. Group Trainers will be certified following Rockwell Training, May 20 - 25, 1986. Training is specific to Verification Program needs for auditors, surveillance and document, design and record review staff. Task Descriptions/Training Requirements work underway. Auditor/Certified Lead Auditor - Done Surveillances - Done Document/Design Review - TBD Technical Procedure Review/Approval - TBD Records Review - TBD Formal training, informal and OJT will be identified and conducted.
L9D2L	Computer/Hardware Maintenance	X	4		N	Relates only to upkeep of QA PC's. Not a quality affecting work activity.
L9D2M	Document Review Support from S&QA Function..	X		Y		See L9D2R for description.
L9D2N	Administrative Support from S&QA function.	X	4		N	Administrative Support which is not a quality affecting activity.
L9D2P	Update/Prepare ES Project Inspection/Acceptance Program Plan.	X	2		N	This activity is part of upgrading BWIP QA Program. The plan will be approved in accordance with BWIP procedures. The Program Plan is being revised/expanded. The work is in a planning stage, not an implementation stage. No Inspection/Acceptance activities are underway at this time. P-2 for L9D2 shows the activities which will comprise ES Program Inspection/Acceptance.

STOP WORK ANALYSIS

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05-09-86

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC				JUSTIFICATION FOR EXCEPTION
		STOP?	CAT	ITS/ITWL?		
		Y N	(1-6)	Y N		
L9D2R	Document, Design and Procedure Review	X		Y		Responsibility of document reviews needs to be defined. Procedures need to be developed to cover review scope and process.
L9D2W	Readiness Review Support	X		Y		Need to establish group procedures to govern activities and to develop and provide training. - BWIP procedure training - MORT training
L9D3A	Procurement QA - QA for Hardware Procurement for BWIP.	X	2-6	Y	Y	Selected Quality Verification by PQA should continue paced by procurements placed without stop work given to the sup- plier, considered under Exception Category 1 through 6 and activities associated with procurements prior to award. Though Rockwell Procedures for quality verification do not totally comply with NQA-1 there is reasonable confidence that the activities are controlled. Note 1: All Procurement and Procurement QA Procedures that affect safety or waste isolation will be rewritten to comply with BWIP format and NQA-1 and are to be included in BWIP-MA-14 manual. Note 2: The PQA has not been evaluated against BQARD as of May 8, 1986.

STOP WORK ANALYSIS

General: Verification Activities serve to confirm adequacy of QA Program implementation and Programs themselves. To the extent that validity of these confirmatory activities depends upon trained, qualified staff and adequate procedural tools. BWIP QA Program Verification is almost ready to support auditing. Other verification activities lack procedures/training or both.

Limited verifications can continue with procedures and training expedited.

However, the validity of the confirmatory verifications will be subject to questions, questions are inevitable and special assessment of acceptability will have to be retrofitted.

Major impediment is complete lack of unified set of revisions on the following:

1. Exactly what QA requirements apply to what work.
2. Exactly who is responsible to meet QA requirements.
3. Exactly what control mechanisms (procedures/policies, plans, etc.) are used/required to control the work.
4. Task descriptions/training requirements definition and training.

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WDS WORK PKG #	BRIEF WORK DESCRIPTION	STOP?	EXC CAT		IIS/IW12		JUSTIFICATION FOR EXCEPTION
			Y	N	(1-6)	Y	
1L9A1A	PROVIDE ADMINISTRATIVE SUPPORT TO ALL BWIP FUNCTIONS		N	TBD		TBD	TO BE PROVIDED
1L9A1C	MATERIAL REPRESENTATIVE SUPPORT FOR COORDINATING THE PLANNING OF BWIP PROCUREMENTS		N	TBD		TBD	TO BE PROVIDED
1L9A1D	SAFETY REPRESENTATIVE SUPPORT FOR PROVIDING TECHNICAL GUIDANCE, PLANNING, AND COORDINATION OF THE SAFETY PROGRAM TO BWIP		N	TBD		TBD	TO BE PROVIDED
1L9A1G	MATERIAL PROCUREMENT RATE APPLIED ON CENRTC PURCHASES		N	TBD		TBD	TO BE PROVIDED
1L9A1H	TECHNICAL EDITING SUPPORT 616161L9A1WDEFENSE HIGH LEVEL WASTE EFFORT		N	TBD		TBD	TO BE PROVIDED
1L9A1W	DEFENSE HIGH LEVEL WASTE EFFORT		N	TBD		TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP2 CAT ITS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L9A3A	UNPLANNED ACTIVITIES AT THE REQUEST OF DOE BY PBM PERSONNEL		N	TBD	TBD	TO BE PROVIDED
1L9A3D	UNPLANNED ACTIVITIES AT THE DIRECTION OF DOE BY ADP PERSONNELN		N	TBD	TBD	TO BE PROVIDED
1L9A3E	UNPLANNED ACTIVITIES AT THE DIRECTION OF DOE FOR ILLUSTRATOR PERSONNEL		N	TBD	TBD	TO BE PROVIDED
1L9A3F	UNPLANNED ACTIVITIES AT THE DIRECTION OF DOE FOR BWIP DIRECTOR STAFF		N	TBD	TBD	TO BE PROVIDED
1L9A3G	UNPLANNED ACTIVITIES--WHIC EFFORT		N	TBD	TBD	TO BE PROVIDED
1L9A4D	ILLUSTRATOR GBGRAPHICS SUPPORT TO RESEARCH (MILL)		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/ITW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L9A4E	ILLUSTRATOR GRAPHICS SUPPORT TO SYSTEMS INTEGRATION (CALICOAT, DANIEL)		N	TBD	TBD	TO BE PROVIDED
1L9A51	PROJECT PEER REVIEW PLANNING PACKAGE		N	TBD	TBD	TO BE PROVIDED
1L9A5A	PROJECT PEER REVIEW		N	TBD	TBD	TO BE PROVIDED
1L9A6A	PROVIDE SUPPORT TO THE OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT		N	TBD	TBD	TO BE PROVIDED
1L9A71	ADP SUPPORT		N	TBD	TBD	TO BE PROVIDED
1L9C1A	PROVIDE MONTHLY SCHEDULE MAINTENANCE AND ANALYSIS		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC		STOP? CAT		ITS/ITW12		JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	N		
1L9C1C	ASSIST END FUNCTION PERSONNEL IN DEVELOPING END FUNCTION SCHEDULES		N	TBD		TBD		TO BE PROVIDED
1L9C1D	ENSURE SCHEDULE CONSISTENCY AND INTEGRATION BETWEEN RIO AND ASSOCIATE/DIRECT FUNDED CONTRACTORS		N	TBD		TBD		TO BE PROVIDED
1L9C1E	ASSIST END FUNCTION PERSONNEL IN PREPARATION OF THE FY 87 BUDGET		N	TBD		TBD		TO BE PROVIDED
1L9C1F	PREPARE FISCAL YEAR 1986 BUDGET SUBMITTAL (WPAS) 1/27/86--4/27/86		N	TBD		TBD		TO BE PROVIDED
1L9C1G	ASSIST END FUNCTION MANAGERS IN PREPARATION OF DETAILED PLANNING 10/01/85--3/30/86		N	TBD		TBD		TO BE PROVIDED
1L9C1H	SCP WORK		N	TBD		TBD		TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT IIS/IW12				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L9C2A	PROVIDE ON-GOING, ROUTINE PLANNING SERVICES TO END FUNCTIONS		N	TBD	TBD	TO BE PROVIDED
1L9C2C	SUPPORT CHANGE MANAGEMENT ACTIVITIES--PREPARATION, CEB PRESENTATION, IMPLEMENTATION		N	TBD	TBD	TO BE PROVIDED
1L9C2D	PROVIDE MCS INTERFACE WITH DIRECT FUNDED CONTRACTORS		N	TBD	TBD	TO BE PROVIDED
1L9C2E	PREPARE BY 1988 BUDGET SUBMITTAL (WPAS)		N	TBD	TBD	TO BE PROVIDED
1L9C2F	SUPPORT THE DEVELOPMENT OF FY 1987 CAAS/CAPS		N	TBD	TBD	TO BE PROVIDED
1L9C3A	PROVIDE ROUTINE ONGOING ANALYSIS, CONTROL AND REPORTING ACTIVITIES		N	TBD	TBD	TO BE PROVIDED

STOP WORK ANALYSIS

END FUNCTION MGR APPROVAL

WBS WORK PKG #	BRIEF WORK DESCRIPTION	EXC STOP? CAT ITS/ITW1?				JUSTIFICATION FOR EXCEPTION
		Y	N	(1-6)	Y	
1L9C3C	PROVIDE SUPPORT FOR UPDATE AND INPUT TO PP, PMP, SEMP, IMP AND OTHER PROJECT HIERARCHY DOCUMENTS		N	TBD	TBD	TO BE PROVIDED
1L9C3D	PREPARE MATERIAL FOR DOE-HQ QUARTERLY PROJECT REVIEW PRESENTATIONS SNS SOCIATE/DIRECT FUNDED CONTRACTORS		N	TBD	TBD	TO BE PROVIDED
1L9C3E	PROVIDE CLERICAL, ILLUSTRATION AND GENERAL ADMINISTRATIVE SUPPORT TO DEPARTMENT AND THE PROJECT		N	TBD	TBD	TO BE PROVIDED
1L9C3F	PROVIDE SUPPORT TO WPAS PREPARATION AS REQUIRED		N	TBD	TBD	TO BE PROVIDED
1L9C3G	PROVIDE SUPPORT FOR MCS IMPLEMENTATION AND COMPLIANCE		N	TBD	TBD	TO BE PROVIDED
1L9C3H	MAINTENANCE AND REPAIR OF PROJECT CONTROL PCS		N	TBD	TBD	TO BE PROVIDED

SUMMARY

TABLE OF PROJECT CONTRACTORS AFFECTED
BY STOP WORK ORDER

<u>WORK PACKAGE</u>	<u>CONTRACTOR</u>	<u>CLIENT</u>
L2A1P	PACIFIC NORTHWEST LAB	DOE-RL
L2C2P	PACIFIC NORTHWEST LAB	DOE-RL
L2D1R	PACIFIC NORTHWEST LAB	DOE-RL
L2D2P	PACIFIC NORTHWEST LAB	DOE-RL
L2D2R	PACIFIC NORTHWEST LAB	DOE-RL
L2D3P	PACIFIC NORTHWEST LAB	DOE-RL
L2D3R	PACIFIC NORTHWEST LAB	DOE-RL
L2D4P	PACIFIC NORTHWEST LAB	DOE-RL
L2D4R	PACIFIC NORTHWEST LAB	DOE-RL
L2D4T	PACIFIC NORTHWEST LAB	DOE-RL
L2E2T	PACIFIC NORTHWEST LAB	DOE-RL
L2F1P	PACIFIC NORTHWEST LAB	DOE-RL
L2A1W	WESTINGHOUSE HANFORD COMPANY	DOE-RL
L2D2W	WESTINGHOUSE HANFORD COMPANY	DOE-RL
L2D2X	WESTINGHOUSE HANFORD COMPANY	DOE-RL
L2D2Y	WESTINGHOUSE HANFORD COMPANY	DOE-RL
L2D4W	WESTINGHOUSE HANFORD COMPANY	DOE-RL
L2E3W	WESTINGHOUSE HANFORD COMPANY	DOE-RL
L2A1A	ROCKWELL SCIENCE CENTER	ROCKWELL
L2D2C	ROCKWELL SCIENCE CENTER	ROCKWELL
L2D2E	ROCKWELL SCIENCE CENTER	ROCKWELL
L2C1A	UNIVERSITY OF COLORADO	ROCKWELL
L2C1R	UNIVERSITY OF COLORADO	ROCKWELL
L2C1D	ARGONNE NATIONAL LABORATORY	ROCKWELL
L2D4C	ARGONNE NATIONAL LABORATORY	ROCKWELL
L2C1C	TEMPLE UNIVERSITY	ROCKWELL
L2C1H	PORTLAND STATE UNIVERSITY	ROCKWELL
L2C2A	LAWRENCE LIVERMORE LABORATORY	ROCKWELL
L2C2C	GEOCHEMICAL RESEARCH ASSOCIATES	ROCKWELL
L2D3K	ARIZONA STATE UNIVERSITY	ROCKWELL
L2E1A	GILBERT COMMONWEALTH	ROCKWELL
L2E1E	GILBERT COMMONWEALTH	ROCKWELL
L2E1X	GILBERT COMMONWEALTH	ROCKWELL
L2E1C	WESTINGHOUSE TECHNICAL SCIENCE DEPARTMENT	ROCKWELL
L2D3M	DYNATECH	ROCKWELL