DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	M.E. Borgeson	Date 11/7/94
Project Title/Work Order		EDT No. 700162
Project 95L-EWT-100, Hazardous Materials Management and Emergency Response Training Center, WHC-SD-T100-PLN-001		ECN No. N/A

NAME	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
L.S. Ayre	HO-57	X			
B.G. Baker	L6-57	X			
F.D. Beard (2)	A5-18	X			
M.E. Borgeson (10)	HO-57	X			
G.B. Becker	R3-28	X			
D.J. Carrell	H6-22	X			
W.S. Chin	A5-18	X			
D.J. Donnelly	G6-57	X			
P.L. Fitzgibbons	H5-26	X			
W.R. Hayes	S3-97	X			
J.R. Kelly	R3-28	X			
K.I. Lane	L4-93	X			
K.A. McGinnis	HO-57	X			
P.J. McKenna	R3-54	X			
C.E. Norton	E6-03	X			
J.E. Ollero	A1-55	X			
R.H. Palmer	R2-58	X			
L.D. Salsberry	E6-03	X			
S.W. Seiler	G3-10	X			
D.L. Street (5)	A5-20	X			
P.J. Vandervert	HO-57	X			
Project Files	R1-28	X			
Central Files (2 + Original)	L8-04	X			
O.S.T.I. (2)	L8-07	X			

(5)

Sta. 4

NOV 09 1994

ENGINEERING DATA TRANSMITTAL

1. EDT No. 700162

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) HAMMER Projects
5. Proj./Prog./Dept./Div.: T-100	6. Cog. Engr.: M.E. Borgeson
8. Originator Remarks: Initial Release of Approved Project Plan	4. Related EDT No.: None
	7. Purchase Order No.: N/A
	9. Equip./Component No.: N/A
	10. System/Bldg./Facility: N/A
	12. Major Assm. Dwg. No.: N/A
11. Receiver Remarks:	13. Permit/Permit Application No.: N/A
	14. Required Response Date: N/A

15. DATA TRANSMITTED

(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	(F) Impact Level	(G) Reason for Transmittal	(H) Originator Disposition	(I) Receiver Disposition
1	WHC-SD-T100-PLN-001		0	PROJECT PLAN, Hazardous Materials Management and Emergency Response Training Center	ESQD	1/2	1	

16. KEY

Impact Level (F)	Reason for Transmittal (G)	Disposition (H) & (I)
1, 2, 3, or 4 (see MRP 5.43)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Impact Level for required signatures)

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.
1/2	1	Cog. Eng. M.E. Borgeson	M E Borgeson	7-7-94	H0-57						
1/2	1	Cog. Mgr. J.R. Kelly R3-28	J R Kelly	7/11/94							
1/2	1	QA C.E. Norton E6-03	C E Norton	7-7-94							
1/2	1	Safety B.G. Baker G3-05	B G Baker	7/8/94							
1/2	1	Env. K.S. Tollefson H6-21	Kathy S Tollefson	7/8/94							
1/2	1	HAMMER Programs: K.A. McGinnis H0-57	K A McGinnis	7/9/94							

18.	19.	20.	21. DOE APPROVAL (if required)
M E Borgeson 7-11-94 Signature of EDT Originator / Date	Authorized Representative for Receiving Organization / Date	M E Borgeson 7-11-94 Cognizant Manager / Date	Ltr No. 9407061 ☒ Approved ☐ Approved w/comments ☐ Disapproved w/comments

RELEASE AUTHORIZATION

Document Number:	WHC-SD-T100-PLN-001, REV.0
Document Title:	Project Plan, Hazardous Materials Management and Emergency Response Training Center
Release Date:	November 9, 1994

This document was reviewed following the procedures described in WHC-CM-3-4 and is:

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Kara M. Broz — November 9, 1994

SUPPORTING DOCUMENT

1. Total Pages 29

2. Title	3. Number	4. Rev No.
Project Plan, Hazardous Materials Management and Emergency Response Training Center	WHC-SD-T100-PLN-001	0

5. Key Words

HAMMER

APPROVED FOR PUBLIC RELEASE

KMB 11/9/94

6. Author

Name: M.E. Borgeson

Marvin E. Borgeson

Signature

Organization/Charge Code 7FB90/E35113

7. Abstract

This document provides project baseline planning requirements for Project T-100.

8. RELEASE STAMP

OFFICIAL RELEASE BY WHC

DATE NOV 09 1994

5

dto.4

WHC-SD-T100-PLN-001
Revision 0

Project Plan

Hazardous Materials Management and Emergency Response Training Center Project 95L-EWT-100

U.S. Department of Energy
Richland Operations Office
Richland, Washington

Hazardous Materials Management and Emergency Response Training Center

Project 95L-EWT-100

HAMMER Project Plan

This page intentionally left blank.

PROJECT PLAN

Hazardous Materials Management and
Emergency Response Training Center
Project 95L-EWT-100

APPROVALS

W. S. Chin, Acting Director
Project Management Division — Date 11/1/94

F. D. Beard, Project Manager — Date 10/28/94

J. E. Ollero, HAMMER Program Manager — Date 10/31/94

ACRONYMS AND ABBREVIATIONS

AE	Acquisition Executive
A-Es	architect-engineers
DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy-Headquarters
FDC	Functional Design Criteria
FY	fiscal year
HAMMER	Hazardous Materials Management and Emergency Response Training Center
PMP	project management plan
RL	U.S. Department of Energy-Richland Operations Office
TEC	total estimated cost
TPC	total project cost
USACE	U.S. Army Corps of Engineering
WBS	work breakdown structure
WHC	Westinghouse Hanford Company

CONTENTS

1.0 INTRODUCTION 8

2.0 MISSION AND OBJECTIVES 8
2.1 MISSION 8
2.2 OBJECTIVES 9
2.2.1 Technical Objectives 9
2.2.2 Schedule Objectives 9
2.2.3 Quality and Reliability Objectives 10
2.2.4 Cost Objectives 10

3.0 TECHNICAL PLAN 10
3.1 TECHNICAL APPROACH 10
3.2 SUMMARY DESCRIPTION 11
3.3 PROJECT SUMMARY WORK BREAKDOWN STRUCTURE 12

4.0 RISK ASSESSMENT 12
4.1 TECHNICAL 12
4.2 SCHEDULE 12
4.3 COST 12
4.4 ENVIRONMENTAL, HEALTH, AND SAFETY 13

5.0 MANAGEMENT APPROACH 13
5.1 MANAGEMENT STRATEGY 13
5.2 ORGANIZATION 13
5.3 MANAGEMENT CONTROL SYSTEM 14
5.4 QUALITY ASSURANCE REQUIREMENTS 14
5.5 ENVIRONMENTAL DOCUMENTATION 14
5.6 SAFETY ANALYSIS 15

6.0 ACQUISITION STRATEGY 15

7.0 PROJECT SCHEDULE SUMMARY 15

8.0 RESOURCES PLAN 16
8.1 PROJECT MANAGEMENT STAFFING 16
8.2 CAPITAL RESOURCES 16
8.3 EXPENSE RESOURCES 16

9.0 CONTROLLED ITEMS 16
9.1 SCHEDULED DECISION POINTS 17

10.0 PROJECT CONTROL 18
10.1 PROJECT REPORTING 19

CONTENTS (Continued)

11.0 PROJECT CHARTER 19
11.1 RESPONSIBLE MANAGING OFFICE 19
11.2 DIVISION DIRECTOR/PROJECT MANAGER 19
11.3 SCOPE OF HAZARDOUS MATERIALS MANAGEMENT AND EMERGENCY RESPONSE TRAINING CENTER PROJECT MANAGER'S RESPONSIBILITY 19
11.4 PROJECT MANAGEMENT OFFICE LOCATION 19
11.5 PROJECT MANAGEMENT SUPPORT 19
11.6 PROJECT MANAGER AUTHORITY 20
11.7 TRANSITION 20

12.0 REFERENCES 21

APPENDIX A 22
FIGURES 22

PROJECT PLAN FOR THE HAZARDOUS MATERIALS MANAGEMENT AND EMERGENCY RESPONSE TRAINING CENTER

1.0 INTRODUCTION

The Hazardous Materials Management and Emergency Response (HAMMER) Training Center will provide for classroom lectures and hands-on practical training in realistic situations for workers and emergency responders who are tasked with handling and cleanup of toxic substances. The Total Project Cost (TPC) is $35.4 million, based on the preliminary budget baseline established from cost estimates developed in April 1994 and updated for the Conceptual Design Report in September 1994. The fiscal year (FY) resource requirements are shown in Figure A-2.

Key Decision 0, Justification of Mission Need, was provided by Memorandum, R. S. Scott (U.S. Department of Energy-Headquarters [DOE-HQ]) to Manager, U.S. Department of Energy-Richland Operations Office (RL), "Hazardous Materials Management and Hazardous Materials Emergency Response Training," dated December 29, 1993. This letter assigned project management responsibility to the Manager, RL.

2.0 MISSION AND OBJECTIVES

2.1 MISSION

The HAMMER project mission is to construct a regional/national user facility providing state-of-the-art performance-based worker safety training and education for hazardous materials and emergency response, while meeting the current and emerging challenges of DOE's environmental restoration and waste management program. This facility will:

- Have highest priority for the effective use of training and education to substantially improve cleanup workers' and emergency responders' health and safety.
- Share and transfer (in/out) safety training technology (e.g., facilities, equipment, training aids, curricula, and expertise).
- Add substantial value to training and education curricula development, validation, and use.
- Develop and validate fixed-site and transportable training aids and simulations.
- Assure that developers and users of new cleanup technologies take into account worker health and safety considerations.

2.2 OBJECTIVES

The primary objective of the HAMMER project is to provide hands-on training and classroom facilities for hazardous material workers and emergency responders. This project will also contribute towards complying with the planning and training provisions of recent legislation.

In March 1989 Title 29 Code of Federal Regulations Occupational Safety and Health Administration 1910 Rules and National Fire Protection Association Standard 472 defined professional requirements for responders to hazardous materials incidents. Two general types of training are addressed for hazardous materials: training for hazardous waste site workers and managers, and training for emergency response organizations. On November 16, 1990, the Hazardous Materials Transportation Uniform Safety Act of 1990 was signed into law. It has several new provisions for emergency response planning and training pertinent to states, the U.S. Department of Transportation, and shippers and carriers of hazardous commodities.

The hands-on props at HAMMER can be justified based on regulatory training requirements, the desire for enhanced safety, and commitment to continuous improvement of training quality. All three elements must be considered because the regulations tend to describe broad goals but lack detailed guidance. The diversity of hazards, settings, and work tasks in environmental cleanup operations and the uncontrolled nature of the pollutants call for more in depth and focused skill training.

2.2.1 Technical Objectives

The HAMMER project activities will bring marked improvements to the training operations at the Hanford Site and provide a link between classroom and on-the-job training. Objectives include:

- Providing classroom training.
- Providing training equipment and various simulated job site conditions that create a hands-on state-of-the-art learning environment.
- Meet the training needs of the Hanford Site as cleanup evolves and as new technologies are developed.
- Meet the training needs of emergency response organizations.

2.2.2 Schedule Objectives

Definitive design activities for the HAMMER project are scheduled to start in the first quarter of FY 1995. Physical construction will start in the fourth quarter of FY 1995 with the site preparation and below grade work. The project summary schedule (Figure A-1) shows DOE control milestones for the project that are required to meet the scheduled completion objectives.

Start of operations will coincide with the completion of a readiness review. The HAMMER project is scheduled for completion and start of operations in calendar year 1997.

2.2.3 Quality and Reliability Objectives

The HAMMER project will be executed in full compliance with governing orders, policies, and procedures. The quality assurance policy has been defined in the HAMMER project Functional Design Criteria (FDC) (WHC-SD-T100-FDC-001, Rev. 0). A project-specific Quality Assurance Program Plan will be prepared. Design reviews will be held for each design package. Reviews will cover the technical, functional, operational, construction, environmental, regulatory, quality, and safety aspects of the project. Quality and safety surveillances will be initiated early in the process and continued through the life of the project to ensure that quality and reliability are an integral part of the HAMMER project.

2.2.4 Cost Objectives

The overall capital cost objective for the Project is estimated to be $29.9 million based on the estimate provided by the U.S. Army Corps of Engineers (USACE) dated February 17, 1994, and a Westinghouse Hanford Company (WHC) Technical Task Package RL 4-4-86-01 dated March 24, 1994, and revised in September 1994. This estimate was validated in June 1994. Discussion of the project cost is provided in Section 8.0, "Resources Plan," and is summarized in Figure A-2.

3.0 TECHNICAL PLAN

The technical plan describes the approach that will be used to accomplish the objectives of the HAMMER project. The project team will provide the necessary technical expertise to accomplish these objectives. A brief summary description of the project scope is provided in Section 3.2.

3.1 TECHNICAL APPROACH

The technical approach for the HAMMER project is to use proven technologies for training props. Where new props are required to be designed to meet specific training needs, the hands-on workers, their supervision, and technical training resources will be consulted. The establishment of the center will create a partnership among the DOE; its contractors; labor; local, state and tribal governments; and Xavier and Tulane universities of Louisiana. Technical input will be solicited from these sources. In addition, standardized, off-the-shelf hardware and software will be used to the maximum extent practicable.

Technical management will consist of monitoring the project against approved baselines. Preliminary studies and assessments; conceptual design; FDC; and governing codes, standards, and regulations will serve as the basis for definitive design, procurement, construction, and acceptance.

The Project will use the technical expertise of the operations and engineering contractor, WHC, and the USACE for daily project management, including design and construction management. Use of offsite architect-engineers (A-Es) and competitive fixed-price construction contractors may be employed whenever it is deemed in the best interest of the government.

3.2 SUMMARY DESCRIPTION

The HAMMER training center will provide a centralized, regional facility dedicated to training hazardous materials workers and emergency responders. An 80-acre location near the southern edge of the Hanford Site has been set aside for this project.

Realism for hands-on training will be obtained through simulated hazardous material handling and incident sites. The scenarios will include props, hazardous materials transport and storage equipment mockups, and emergency response equipment to simulate potential incidents under various given conditions.

Hanford Fire Department and mutual aid fire department training will be incorporated. The facility will train and test fire department personnel in all aspects of fire suppression, rescue, salvage, and hazardous material incident control and mitigation.

Practical exercises will allow various entities responsible for management, control, and recovery to work together. The proposed facility will also be sited to allow construction and simulation of transportation incidents, which can limit access by responders and complicate control and recovery operations.

Support facilities are required including classrooms, administrative offices, lunchrooms, shower rooms, run-off containment and separation facilities, parking space, and storage areas. The facility will include:

- High and low angle rescue techniques
- A training tower with live fire capability
- Fire Department pumper testing
- Flammable liquid and gas burn pads
- Hands-on fire extinguisher training
- Simulations of laboratory and process spaces
- Mock-up doors, windows, and roof structures
- Hazardous materials spill or leak containment area
- A driver and fire evolution training and testing area

- Radiological training props
- Generic hazardous materials holding and transportation props (e.g., petroleum tanks, tank trucks, rail cars, and pipelines)
- Spill containment simulation area
- Laboratory area for laboratory emergency response training
- Respiratory equipment training facilities
- Equipment familiarization and operation area
- Commercial building interior for emergency response facilities
- Accommodation for confined space rescue techniques

3.3 PROJECT SUMMARY WORK BREAKDOWN STRUCTURE

The project summary work breakdown structure (WBS) for the HAMMER project is in Figure A-1.

4.0 RISK ASSESSMENT

4.1 TECHNICAL

The technical risks associated with the HAMMER project are considered low. The project is considered standard industrial construction and no new technology development is required to accomplish the project objectives. Standard off-the-shelf equipment and proven technology will be used.

4.2 SCHEDULE

The overall schedule risks associated with the HAMMER project are considered low. Time for permitting and/or interfacing with state, U.S. Environmental Protection Agency, U.S. Department of Health, and Fish and Wildlife Agencies have been incorporated into the HAMMER plan and schedule. Unique specifications or specialty design or construction materials are not required. Some construction takes place outdoors during winter months and construction delays due to inclement weather are possible.

4.3 COST

The cost risk for the HAMMER project is considered low. The conceptual design is complete, and the project is standard industrial construction which is well understood. Cost growth will be controlled by controlling project scope and maintaining the schedule.

4.4 ENVIRONMENTAL, HEALTH, AND SAFETY

The environmental, health, and safety risks associated with the project are considered low. There is no radiation zone work. Construction and operation of the facilities and systems provided by the HAMMER project will comply with Occupational Safety and Health Act regulations.

The HAMMER project will reduce risks to the environment, to the worker, and to the health and safety of the public by providing highly trained, qualified workers to handle hazardous materials.

5.0 MANAGEMENT APPROACH

5.1 MANAGEMENT STRATEGY

The HAMMER project will be managed in accordance with DOE Order 4700.1, *Project Management System.*

The Project cost and schedule were validated in mid June 1994.

Because the project is out of the normal budget cycle, the project management approach will require a high degree of flexibility to meet schedule. To ensure a high degree of baseline control, the project will be organized, monitored, reported on, and change controlled under the overall management of the HAMMER Project Management Plan (PMP) and the HAMMER Project Change Control Board.

5.2 ORGANIZATION

The Secretary has delegated the responsibility for approval of mission need and principal management activities to the Acquisition Executive (AE). Program responsibilities rest with the Assistant Secretary of the Office of Environmental Restoration and Waste Management. The HAMMER project management approach follows the principle of decentralization of program and project activities to the DOE field office. The RL is responsible for the management of the HAMMER project with appropriate level of DOE-HQ oversight. The DOE-HQ Program and Project Organization, including the DOE-HQ Program Manager, is shown in Figure A-3. The RL Program and Project Organization, including the RL HAMMER Project Manager, is also shown in Figure A-3. Specific responsibilities for the DOE organization are reflected in Section 11.0, "Project Charter."

One major government contractor supports the HAMMER project. The RL will provide overall coordination of project activities through the Hanford Operations and Engineering Contractor, WHC. WHC will be supported by the USACE who will provide, as appropriate, A-E services and construction management.

5.3 MANAGEMENT CONTROL SYSTEM

A management control system which includes activities of planning, collecting, assessing, and reporting of cost by WBS cost account and work package element will be implemented.

The project will be controlled against its specific project baselines:

1. Technical - defines all functional aspects including work to be done, requirements to be satisfied, and quality to be attained for the project.

2. Cost - includes all cost-related aspects of the project (e.g., cost account) as shown in Figure A-2, the project summary WBS.

3. Schedule - correlates the time-related aspects of the project as shown on the project summary schedule, Figure A-1.

Change control will be implemented by the HAMMER Project Change Control Board, which is chaired by the RL HAMMER Program manager. Management of project contingency and project baselines will be controlled within threshold and approval requirements.

Changes to the established technical, cost, and schedule baselines will be controlled by RL except as they impact the HAMMER project total estimated cost (TEC) and DOE-HQ milestones. Changes that impact the HAMMER project TEC or DOE-HQ milestones will require approval of the AE as required by DOE Order 4700.1.

The RL will provide the DOE-HQ with quarterly reports summarizing the overall HAMMER project status including design and construction progress, milestone status, cost status, and problem areas with proposed resolution as required by DOE Order 4700.1.

5.4 QUALITY ASSURANCE REQUIREMENTS

The HAMMER Project Quality Assurance Program will be in accordance with DOE Order 5700.6C, *Quality Assurance*, to provide the requisite level of quality. A project-specific quality assurance plan will be provided for the project. The project-specific quality assurance plan will be prepared by the operating contractor and approved by RL.

5.5 ENVIRONMENTAL DOCUMENTATION

An environmental requirements checklist has been prepared to determine permits and approvals applicable to this project. Site evaluations required under the National Historical Preservation Act and the Endangered Species Act that also support preparation of National Environmental Policy Act Documentation have been completed. An Information Bulletin and a Categorical Exclusion were transmitted to RL on January 12, 1994 for review. The Department of Energy has determined that construction and operation of the facility is categorically excluded under DOE's National Environmental Policy Act Regulations.

5.6 SAFETY ANALYSIS

Two methods for determination of hazard classification have been assessed (DOE-STD-1027-92 and WHC-CM-4-46) for the HAMMER project. Based on the criteria outlined in DOE-STD-1027-92, this facility would be categorized as a less than category 3 facility; therefore, not requiring a safety analysis report in accordance with DOE Order 5480.23 requirements. As defined in WHC-CM-4-46, the hazard classification establishes the review and authorization level of the safety analysis and provides a basis of applying a graded approach to the level of analysis and documentation of the safety analysis reports.

Based on this evaluation, potential consequences associated with the hazards of this facility would be considered minor and localized and are only of a type and magnitude routinely encountered and/or accepted by the general public; therefore, this facility is classified as a "general use facility".

6.0 ACQUISITION STRATEGY

The USACE will provide conceptual design, definitive design, and inspection services in accordance with direction provided by the RL HAMMER Project Manager. Offsite design/build, A-E fixed price, or cost plus fixed-fee contracts may be used on selected designs as determined by RL.

The USACE will provide construction management services. The USACE will subcontract fixed-price construction contracts for construction activities on a competitive basis to the maximum extent practicable. The use of fixed-price incentive fee and cost plus award fee construction contracts is not envisioned. Procurement of equipment and materials supporting construction will be by the fixed-price construction contractor or by the USACE.

All HAMMER project procurement actions will be accomplished by the USACE. Maximum practicable opportunity will be made for small, disadvantaged, minority, and labor surplus area businesses to participate. Procurement actions will be in compliance with interagency agreements between the DOE and the USACE.

7.0 PROJECT SCHEDULE SUMMARY

The HAMMER project summary schedule (Figure A-1) illustrates ongoing and future activities and milestones that are required to meet project objectives. Supporting schedules will include intermediate-level schedules and detailed contractor and subcontractor schedules.

The project schedule summary illustrates the RL controlled project milestones and intermediate (design and construction) milestones.

8.0 RESOURCES PLAN

The HAMMER project is a congressionally authorized line item project providing capital funds for definitive design, procurement, construction, installation, and inspection. The total project cost (TPC) of the HAMMER project is approximately $35.4 million.

8.1 PROJECT MANAGEMENT STAFFING

Current staffing levels of approximately three contractor staff will remain consistent. Staffing for DOE project engineers will be two.

8.2 CAPITAL RESOURCES

The capital resources required to support the project scope are detailed in the construction project data sheets. A summary of the requirements are shown in Tables 1 and 2, Page 17.

8.3 EXPENSE RESOURCES

It was estimated that $5.0 million of expense funds would be required to support all the approved project. Support activities include the following:

- Initial definition of requirements and baseline development
- Quality Assurance and Safety oversight
- User acceptance by ongoing design reviews
- Activities in support of operational startup (permitting, training, procedures, etc.)

See Tables 1 and 2, Page 17 for further details

9.0 CONTROLLED ITEMS

If the project Level 1 technical scope (discussed in the text and table below) changes or if the TEC increases, then the project manager will notify the Assistant Secretary for Environmental Restoration and Waste Management and provide a corrective action plan for approval.

The Level 1 technical scope is as identified in Table 1, Page 17, for Project T-100.

Scheduled milestone decision points for this project are identified in Table 3, Page 17.

Table 1 - Summary of Baseline Information

	Secretarial/Program (Level 1)	Project (Level 2)	Contractor (Level 3)
Technical (Scope)	See general scope statement above	Functional Design Criteria, PMP	Design Documents, Specifications
Schedule	N/A. All schedule milestones are currently at the Project (Level 2) level.	Project Summary Schedule, thresholds to be established in the project-specific PMP.	Project Summary Schedule, thresholds to be established in the project-specific PMP.
Cost	TEC, $29.9M TPC, $35.4M	Contingency usage thresholds to be established in the project-specific PMP.	Contingency Usage thresholds to be established in the project-specific PMP.

N/A = Not Applicable
TPC = Total Project Cost
TEC = Total Estimated Cost
PMP = Project Management Plan

Table 2 - Summary of Change Control Thresholds

	Secretarial/Program (Level 1)	Project (Level 2)	Contractor (Level 3)
Technical (Scope)	All changes impacting Level 1 scope	All changes impacting Level 2 Scope	Changes not impacting Level 1 and 2 Scopes
Schedule	All changes impacting HQ Milestones	Schedule changes to be established in the project-specific PMP	Schedule milestones not classified as Levels 1 or 2.
Cost	Any increase to the TEC, or TPC	Cost changes to be established in the project-specific PMP	Cost changes not classified as Level 1 or 2.

9.1 SCHEDULED DECISION POINTS

Table 3 - Level 2 Decision Points

Decision Description	Approval Authority	Start Date	Complete Date
Conceptual Design	RL	03/94	09/94
Definitive Design	RL	11/94	07/95
Construction	RL	04/95	05/97
Operations	RL	09/97	

10.0 PROJECT CONTROL

The HAMMER project milestones are shown on the project summary schedule, Figure A-1.

Key Decisions 1, 2, 3, and 4 for start of construction and start of operations were delegated to RL by Memorandum, R. S. Scott, DOE-HQ to Manager, DOE Richland Operations Office "Hazardous Materials Management and Emergency Response Training," dated December 29, 1993.

The project manager is responsible for overall control of the project, including cost and schedule control and control of development of design and construction. The Project will implement the Site Management System, which uses both project baseline control and change control management procedures for organizing, planning, monitoring and controlling scope, schedule, and costs.

1. The technical baseline defines all functional aspects including the work to be done, requirement to be satisfied, methods to be used, and quality to be attained. The basic technical baseline documents are the FDC and the released design media.

2. The cost baseline, which is comprised of all cost-related aspects of the project, includes the cost of each WBS item and the related funds.

3. The schedule baseline correlates all time-related aspects including the sequence relationship, duration of activities, and the start and completion dates.

A PMP will be developed in accordance with DOE Order 4700.1. The PMP will identify DOE-HQ, RL, and contractor controlled milestones. The PMP will define cost, schedule, and technical change control thresholds.

Change control authority will reside with the RL Project Manager, who will obtain the appropriate concurrences. Management of project contingency and project baselines will be controlled within thresholds and approval requirements. Proposed changes which impact project TPC, TEC, or DOE-HQ milestones will require DOE-HQ approval.

The operating contractor, the A-E, and the construction manager will implement an effective management control system for organizing, planning, scheduling, budgeting, authorizing, accounting, controlling, and estimating their respective scope of work. The project summary WBS and lower-level contract WBS will provide for integration of cost, schedule and technical baselines, and progress assessment and reporting. Project scheduling will be accomplished by using scheduling hierarchy structure. Cost and schedule control will use formal change management.

10.1 PROJECT REPORTING

The project manager will provide quarterly reports to DOE-HQ summarizing design/construction progress, milestones status, cost status, and problem areas with proposed resolution as required by DOE Order 4700.1. Baseline changes will be reported in accordance with DOE Order 4700.4A, "*Baseline Change Control Process at the Executive Level.*"

As the primary RL program office, Human Resources and Administration provide coordination of related technology development programs and provides liaison with waste operations. This office will also represent, as the single coordinating office, the interests of the other support offices and programs and site management. The Human Resources Division will concur on baseline changes affecting program office activities.

The onsite operations and maintenance contractor provides technical direction, project management, design review, and quality assurance direction for engineering, procurement, and construction.

11.0 PROJECT CHARTER

11.1 RESPONSIBLE MANAGING OFFICE

Richland Operations Office
Human Resources Division

11.2 DIVISION DIRECTOR/PROJECT MANAGER

Project Management Division/Waste Projects Branch

11.3 SCOPE OF HAZARDOUS MATERIALS MANAGEMENT AND EMERGENCY RESPONSE TRAINING CENTER PROJECT MANAGER'S RESPONSIBILITY

The HAMMER project manager is responsible for the management and direction of engineering, verification, permitting, regulatory/compliance, design, procurement, construction, readiness review, and turnover to operations of facilities and systems provided by the HAMMER project.

11.4 PROJECT MANAGEMENT OFFICE LOCATION

Richland Operations Office, Richland, Washington

11.5 PROJECT MANAGEMENT SUPPORT

1. The Acquisition Executive (AE) makes key decisions to enter into the design, construction, and operation phases as defined in DOE Order 4700.1 for other projects and this plan.

2. The EM-20 provides general management and policy guidance on the national defense waste management program, including the HAMMER project.

3. The Office of Oversight and Self Assessment has DOE-HQ responsibility and authority for the HAMMER project, including establishment of funding levels. The designated DOE-HQ HAMMER project Program Manager, provides programmatic direction, overview, project assistance, and DOE-HQ coordination.

4. The manager, RL, has responsibility, accountability, and authority for the overall implementation of the HAMMER project. The manager delegated the responsibility, accountability, and authority to the Office of Economic and Strategic Transition and Integration and the RL HAMMER project Manager to manage and direct the HAMMER project.

5. As the primary RL program office, Human Resources and Administration provide liaison and representation. This office will also represent the interests of the other support offices and programs.

6. Westinghouse Hanford Company provides technical direction, project management, design review, and quality assurance direction for the HAMMER project contractors. Westinghouse Hanford Company directs the activities of the USACE, as appropriate.

11.6 PROJECT MANAGER AUTHORITY

The project manager for the HAMMER project reports to the Project Management Division director and to the Office of Economic and Strategic Transition and Integration. The project manager is responsible for daily planning, managing, and reporting in compliance with DOE Orders and other applicable regulatory requirements, and baseline documentation.

1. Planning - Participate in the development and approval of those activities which determine and implement cost, schedule, and technical baselines and control documents.

2. Managing - Manage all aspects of engineering, verification, design, construction, and testing. Assist the Procurement Division in procuring A-E services, serve as Contracting Officer's Representative, monitor design activities, and release design for construction. Review, concur, and/or approve project technical documentation. The Office of Safety Assessment will provide oversight review for applicable project activities affecting quality, safety, and health.

11.7 TRANSITION

The project will be released for full operations upon completion of its operational testing, operational readiness review, and subsequent approval by RL. At that time, the HAMMER project staff will be transferred to other responsibilities, as appropriate, within the RL organization.

12.0 REFERENCES

DOE, Project Management System, Order 4700.1 and Chg 1 RLIP, U.S. Department of Energy, Washington, D.C.

DOE, Radiation Protection of Public and the Environment, Order 5400.5, U.S. Department of Energy, Washington, D.C.

DOE, Environment, Safety, and Health Program for DOE Operations, Order 5480.1B, U. S. Department of Energy, Washington, D.C.

DOE, Safety Analysis and Review System, Order 5481.1B, U.S. Department of Energy, Washington, D.C.

DOE, Quality Assurance, Order 5700.6C, U.S. Department of Energy, Washington, D.C.

RL, Project Management System, Order 4700.1A, U.S. Department of Energy, Richland, Washington

WHC, Quality Assurance Manual, WHC-CM-4-2, Westinghouse Hanford Company, Richland, Washington

APPENDIX A

FIGURES

Figure A-1. Project T-100, Hazardous Materials Management and Emergency Response Center Work Breakdown Structure/ Project Summary Schedule.

PROJECT T-100 - HAMMER MILESTONES

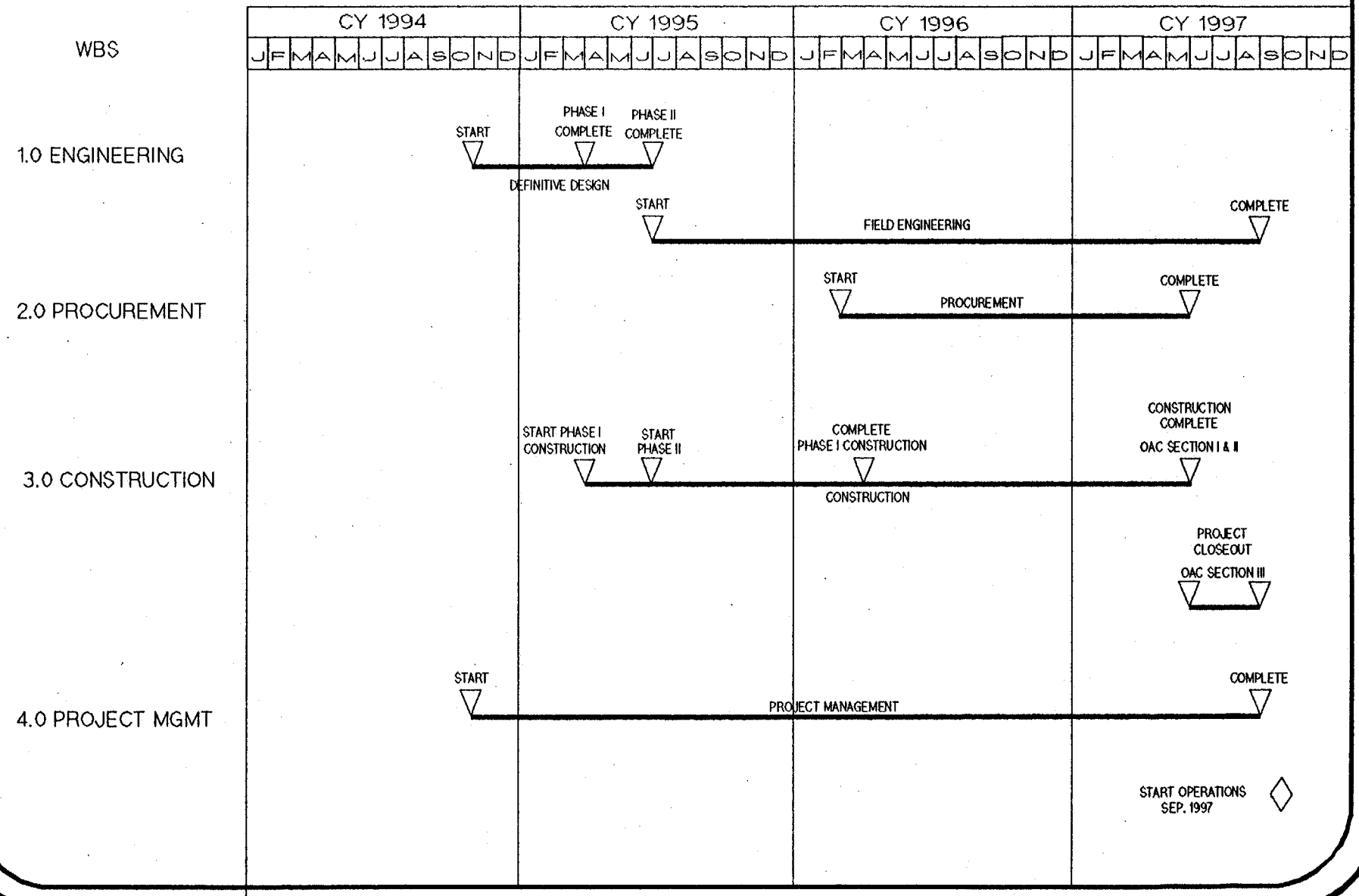

Figure A-2. Project T-100, Hazardous Materials Management and Emergency Response Center BA/BO - OPC Schedule

PROJECT T-100 - HAMMER

BA/BO - OPC SCHEDULE

	FY 1994				FY 1995				FY 1996				FY 1997			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
TEC																
DESIGN					———	———	———	———								
CONSTRUCTION/ PROCUREMENT						———	———	———	———	———	———	———	———	———	———	
PROJECT COMPLETE															———	
					7,000/3,830				15,000/15,280				7,900/10,790			
												TOTAL	29,900			
OPC																
	2,500				805				677				1,518			
												TOTAL	5,500			
												TPC TOTAL	35,400			

Figure A-3. Project T-100, Hazardous Materials Management and Emergency Response Center U.S. Department of Energy-Headquarters Programs and Projects Organizations and Functional Relationships

HAZARDOUS MATERIAL MANAGEMENT & EMERGENCY RESPONSE TRAINING CENTER PROJECT 95L-EWT-100

PROGRAMS/PROJECTS ORGANIZATIONS & FUNCTIONAL RELATIONSHIPS