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Project Management Plan Double-Shell Tank System Specification Development

T. J. Conrads Numatec Hanford Company, Richland, WA 99352 U.S. Department of Energy Contract DE-AC06-96RL13200

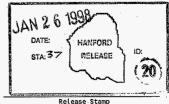
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Key Words: double-shell tanks, waste retrieval, project requirements, storage tanks.

Abstract: This document describes the process for developing an approach to designing a system for retrieving waste from double-shell tanks. It includes a schedule and cost account for the work breakdown structure task.

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A-6400-073 (01/97) GEF321

Project Hanford Management Contract

Project Management Plan

Double-Shell Tank System Specification Development

Prepared by T. J. Conrads

NUMATEC HANFORD CORPORATION

November 25, 1997

HNF-2121, Rev. 0

NUMATEC HANFORD CORPORATION

PROJECT MANAGEMENT PLAN

T. J. Conrads Technical Authority Numatec Hanford Corporation

R. P. Marshall Functional Area Manager Numatec Hanford Corporation

12/5/97

Date

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1.0 INTRODUCTION

The Project Hanford Management Contract (PHMC) members have been tasked by the U.S. Department of Energy (DOE) to support removal of wastes from the Hanford Site 200 Area tanks in two phases. The schedule for these phases allows focusing on requirements for the first phase of providing feed to the privatized vitrification plants. The Tank Waste Retrieval Division's near-term goal is to focus on the activities to support Phase I. These include developing an integrated (technical, schedule, and cost) baseline and, with regard to private contractors, establishing interface agreements, constructing infrastructure systems, retrieving and delivering waste feed, and accepting immobilized waste products for interim onsite storage.

2.0 PURPOSE

The program described below focuses on developing a systems approach for defining the project requirements for the architecture to retrieve wastes from the double-shell tanks (DST) and designated miscellaneous underground storage tanks (MUST); provide waste feed to privatization contractors for processing and receive by-product from the privatization contractors all in an environmentally sound, safe, secure, and cost-effective manner. This approach uses an integrated requirements-driven, technically defensible physical system configuration that incorporates functional analysis, requirements analysis, alternative generation analysis, evaluation and optimization, and test and evaluation. Specialty engineering, decision/risk management, and interface management are integral parts of the process.

The results of the process will yield definitions of the integrated projects required to support the mission, upgrade the existing architecture where it is lacking, and continue the engineering process to design, construct, and turn over the new or modified facilities. Once the required projects are defined, activities must continue to implement the systems engineering approach and not just focus on the new or modified facilities. Continued implementation of the systems engineering processes, as they relate to the existing architecture, is critical to ensure acceptability of the system as a whole. Test and evaluation and reliability, availability, and maintainability assessments on the existing systems are considered critical elements of this process.

3.0 TECHNICAL OBJECTIVE

The technical objective for this project is to use a systems approach to define the integrated project scope to satisfy the mission of waste retrieval, supply feed to the privatization contractors and receive byproduct from the privatization contractors. The scope will address the required modifications to existing systems as well as definition for new structures, systems, and components.

4.0 PROJECT DEFINITION/WORK SCOPE

The WORK SCOPE is described in the Tank Waste Remediation System (TWRS) FY-1998 Multi-Year Work Plan and defined in more detail by the Task Schedule shown in Figure A.1 and described in more detail by Task Notes depicted in Table A.1. In general, the WORK SCOPE defines, documents, and maintains the functions and requirements of the DST and system segments supporting the Tank Waste Remediation System (TWRS). It includes completion of planning for resolution of the To Be Determined (TBDs) in the DST System specification, the performance and/or management of selected priority analyses, and preparation of change requests to update the DST System technical baseline. The system level analyses are required to support functional and requirements analyses to get to the component level in support of Phase I DST waste retrieval and feed delivery decisions.

4.1 DST System Specification

DST System Specification Support/Performance Analysis:

TWRS defines functional requirements to the 4th and 5th levels, and generates the associated performance requirements. (Resolves TBDs in current DST System Specification.)

DST Project Management:

Conduct management analysis to establish Risk Analysis, and a Schedule Baseline.

DST Process Analysis

Phase I DST system process parameters will be defined using the Hanford Tank Waste Operations Simulater Software.

DST Specialty Engineering Studies:

Conduct studies to define Reliability, Availability and Maintainability (RAM), Logistics, Training, and Test and Evaluation requirements based on TWRS management policies.

Internal Review :

Conduct a review of the DST System Specification limited to the System Specification and its associated planning.

DST Trade Studies/AGAs:

Trade Studies and AGAs are completed to document engineering analysis and select architectures to support System needs. This scope establishes funding for an Analytical Assessment of the Existing DST System and four small trade/AGA studies.

DST Interface Control Documents:

This work establishes the interfaces between each subsystem. These documents will provide the basis for delivery and acceptance of products from each subsystem in the TWRS.

4.2 DST Components Specifications

DST Component Level Functional Analysis:

Perform additional decomposition of functions, through levels 6 and 7, as necessary to define DST system. Complete Functional Flow Block Diagrams (FFBD).

DST Component Level Performance Analysis:

Generates the performance requirements associated with the functions established at the 6th and 7th levels.

• DST Trade Studies/AGAs:

Trade Studies and AGAs are completed to document engineering analysis and select appropriate architectures.

DST Design Component Specifications:

Generate design to specifications for architectures selected by trade studies and Alternative Generation Analysis (AGA). Currently 15 component specifications are expected to be needed including:

- DST Master I&C
- Decant Pump
- Slurry/Transfer Pump

Master Pump Shutdown Controls

- Mixer Pump
 - Chemical Addition System.

4.3 DST Project Acquisition Baseline

This work establishes the requirements and scope for each Project.

4.4 Configuration Management

Review and approve changes to the technical and programmatic SST and DST System baselines as needed. Generate and submit updates via change request as lower level Functions and Requirements (F&R) are developed.

4.5 Deliverables

Major deliverables consist of revised systems engineering documents that define the functions and requirements of the DST System. These documents will support DOE's strategy for facility acquisition. Documents include supporting documents for the DST System Specification, e.g., Trade Studies/AGAs, Interface Control Documents (ICDs) and Component Specifications.

4.6 Costs

The estimated costs for this program are \$2M. Funding currently available under TWRS FY-98 Multi-Year Work Plan, project summary work breakdown structure element 1.1.1.3.1.1.3.2 is \$1.62M. Formal change requests will be processed for the difference.

5.0 PROJECT ORGANIZATION

The overall responsibility for this project has been delegated by Lockheed Martin Hanford Company to Numatec Hanford Corporation. Major participants in this project are the U.S. Department of Energy, Richland Operations Office (RL), Project Hanford Management Contract (PHMC) Team and other on- and offsite contractors. The PHMC Team is comprised of a number of companies, of which Fluor Daniel Hanford, Incorporated (FDH) is the prime, hereby referred to as the Managing Contractor (MC).

Contractual relations and responsibilities established between RL and the MC are identified in the U.S. Department of Energy Contract DE-AC106-96RL13200. The RL approach for administering this contract is specified in the Contract Administration Plan, Project Hanford Management Contract (CAP). This contract administration style entails partnering with the MC and its subcontractors to achieve mutually beneficial results.

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

The RL Manager (or designee) is responsible for the definition, oversight, and acceptance of the work performed by the PHMC and its subcontractors. The RL Manager has the authority to stop any work activity, add work, and/or withdraw work from the PHMC contract. In addition, the RL Manager has authority for approval of those project Key and Critical Decisions formally delegated to RL by DOE-HQ.

In general terms, the role of RL, with regard to administering the PHMC contract, is to:

- Define success criteria/values
- Establish boundaries for integration
- Set priorities
- Establish strategic performance measures
- Define outcomes/deliverables
- Establish minimum site standards/evaluate results.

Authority for contractual direction to the MC is reserved to the RL Contracting Officer (CO) and designated Contracting Officer Representatives (COR). Overall COR responsibility for the TWRS strategic system is assigned to the Assistant Manager (AM) for TWRS.

5.2 Project Hanford Management Contractor

The PHMC is a team comprised of 13 companies: a prime contractor/MC, 6 major subcontractors, and 6 "enterprise" companies.

As the MC, FDH has overall responsibility for integrating and directing the work of the other team members. Subcontractor members of the PHMC team include Babcock and Wilcox Hanford Company; Duke Engineering and Services Hanford, Incorporated; DynCorp; Lockheed Martin Hanford Corporation (LMHC); Numatec Hanford Corporation (NHC); and Rust Federal Services of Hanford, Incorporated. The PHMC enterprise companies are B&W Protec, Incorporated; DE&S Northwest, Incorporated; (DESH); Fluor Daniel Northwest (FDNW); Lockheed Martin Services, Incorporated; Rust Federal Services, Incorporated; (RFSH); and SGN Eurisys Services Corporation (SESC).

5.3 Fluor Daniel Hanford, Incorporated

As the MC, FDH is responsible and accountable for management of all DST System Specification activities. FDH's role focuses on allocating resources, management, and integration of the work (how and whom), while its subcontractors are responsible for operations (doing the work). The MC role includes defining the work necessary to accomplish the objectives established by RL and working with RL to establish specific Performance Agreements tied to PHMC award fee objectives.

FDH's responsibilities include serving as the prime interface with RL. All contractual requirements and formal communications concerning this project between the PHMC team and RL shall be coordinated through the office of the FDH TWRS Project Director.

The TWRS Project Director is responsible for integrating horizontally across major project boundaries and vertically to DOE and the major subcontractors (e.g., LMHC and NHC). This approach will ensure vertical definition of interfaces and requirements from FDH down through the major subcontractors, and will also provide horizontal integration of interfaces and requirements among major subcontractors.

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Lockheed Martin Hanford Corporation/Numatec Hanford Corporation

Programmatic and operational responsibilities for TWRS have been assigned by FDH to LMHC (one of the six major subcontractors in the PHMC team). Direct programmatic ownership of this project is provided by the TWRS Tank Waste Retrieval organization. Within this sponsoring organization, Waste Retrieval Program provides programmatic integration with other projects and provides operations liaison with Tank Farm Operations.

(TFO). Both the Tank Waste Disposal Director and TFO Director report to the TWRS President and General Manager.

Numatec Hanford Corporation provides matrixed project management personnel and expertise to LMHC. The Project Manager, Tom Conrads, who reports to the Waste Retrieval Program manager via the NHC Project implementation manager, Rob Marshall, has direct responsibility and accountability for day-to-day management of this project.

6.0 PROJECT BASELINE

The project integrated baseline is made up of the technical, schedule, and cost baselines. Changes to any of these baselines will require the appropriate revision coordination to the others.

6.1 Technical Baselines

The following documents make up the technical baseline for this project:

Grenard, C. E., and Claghorn, R. D., 1997, System Specification for the Double Shell Tank System, HNF-SD-WM-TRD-007, Rev. A Draft, Fluor Daniel Hanford Company, Richland, Washington.

Peck, L. G., 1996, Tank Waste Remediation System, Systems Engineering Management Plan, WHC-SD-WM-SEMP, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

Rieck, R. H., 1996, *Tank Waste Remediation System Mission Analysis*, WHC-SD-WM-MAR-008, Rev. 1, Westinghouse Hanford Company, Richland, Washington.

Lenseigne, D. L., 1997, Tank Waste Remediation System Fiscal Year 1998 Multi-Year Work Plan Work Breakdown Structure 1.1, HNF-SP-1230, Rev. 0, Fluor Daniel Hanford Company, Richland, Washington.

6.2 Schedule Baseline

Appendix A includes the baseline schedule for this project.

6.3 Cost Baseline

Project Summary Work Breakdown Schedule Element 1.1.1.3.1.1.3.2 reflects the baseline cost for this project. (See Appendix B)

7.0 BASELINE CHANGE CONTROL

Changes to baselines are authorized by approval of a change request (CR) in accordance with HNF-PRO-569, Baseline Change Control.

8.0 PERFORMANCE MONITORING AND REPORTING

The Project Manager will establish the appropriate monitoring measurements to report progress.

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9.0 CONFIGURATION MANAGEMENT

Configuration Management will be performed in accordance with HNF-PRO-440.

APPENDIXES

APPENDIX AProject Task Schedule and NotesAPPENDIX BWBS Cost Accounts

APPENDIX A

PROJECT TASK SCHEDULE AND NOTES

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Figure A.1. Task Schedule. (Sheet 1)

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Task Name Dur Establish DST System T&E Policy & Dur 2 1 d Successors 2 3,24 O N D J F M A M J J A S Input T&E requirements Input T&E requirements into section 4.0 of the DST Sys Spec 5 d 71,78 \$15,750.00 \$15,00.00 \$15	Task Name Dar Successore O N D J F M A M A S O N Task Name Evaluation DST System T&E Policy & 21d 33.24 33.24 \$15.750.00 Buscessore 0 N 0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>47d</td> <td>Perform RAM Analysis</td> <td>30</td> <td></td>									47d	Perform RAM Analysis	30	
Task Name Dur Establish DST System T&E Policy & Requirements Dur I Strossors O N D J F M A M J J A S O N Input T&E requirements Requirements 10 23.24 23.24 \$15,750.00 UnFUNDED \$15,750.00 UnFUNDED Strossors 10 1 A M J J A S O N Centrate a DST Sys T&E Plan (Integrate with TWR) 36d 89 \$15,750.00 Genard(0.25) UNFUNDED Strossors Strossorsors Strossors Strossors	Task Name Dur Successors O N D J F M A M J J A S O N Establish DST System T&E Policy & 21d 23,24 vulfunded vulfunded <td< td=""><td></td><td></td><td></td><td>litor[0.1]</td><td>Fink,Unknown,Tech Ed</td><td>8</td><td></td><td></td><td>11d</td><td>Generate an Integrated Logistics Support Plan</td><td>29</td><td></td></td<>				litor[0.1]	Fink,Unknown,Tech Ed	8			11d	Generate an Integrated Logistics Support Plan	29	
Task Name Dur Successors O N D J F M A M J J A S O N Establish DST System T&E Policy & Requirements 21d 23,24 23,24 vulrefunceD	Task Name Dur Successors O N D J F M A M J J A S O N Establish DST System T&E Policy & Requirements 21d 23,24 21d 23,24 VikruNDED	-		۰.		민— 말을 (오	\$1,500.00			5.4	Input Logistics Requirements for DST System Spec into HSTD.	28	
Task Name Dur Successors O N D J F M A M J J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED Imput T&E requirements into section 4.0 of the DST Sys Spec 5d 77,78 \$15,750.00 Imput T&E requirements into section 4.0 of the DST Sys Spec 5d 77,78 \$15,750.00 Imput T&E requirements into section 4.0 of the DST Sys Test Eng., TRW[0.25] UNFUNDED UNFUNDED Imput T&E requirements into section 4.0 of the DST Sys T&E Plan (Integrate with TWR) 3dd 89 \$76,0.00 Imput Test Eng., TRW[0.25], Test Eng., TRW[0.25], Test Eng., TRW[0.25], Tech Editor[0.3] UNFUNDED UNFUNDED UNFUNDED UNFUNDED UNFUNDED UNFUNDED UNFUNDED Imput Test Eng., TRW[0.25], Tech Editor[0.3] Imput Test Eng., TRW[0.5] Imput Test Eng., TRW[0.5	Task Name Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & Requirements 21d 23.24 UNFUNDED UNFUNDED Imput T&E requirements into section 4.0 of the DST Sys Spec 5d 77.78 \$15.760.00 Imput T&E reguirements Sys. Test Eng., TRW(0.25) UNFUNDED Imput T&E requirements Sys. Test Eng., TRW(0.25) Imput TWR(0.25) Sys. Test Eng., TRW(0.25) Sys. Test Eng., TRW(0.25) Sys. Test Eng., TRW(0.25), Tech Editor(0.3) Sys. Test Eng., TRW(0.5) Sys. Test					Unknown,Fink	\$12,000.00			10d	Analyze DST System Logistics Support Ramts	27	
Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED Input T&E requirements 5d 71,78 \$15,750.00 \$15,750.0	Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 0 N D J F M A M J A S O N Requirements Nour Section 4.0 of the 5d 77,78 \$15,750.00 \$15,750					k[0.5]		\$12,600.00		42d	Work with TWR and Ops to Establish a Logistics Concept and Strategy	26	
Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED Input T&E requirements System T&E Policy & 21d 23,24 UNFUNDED System T&E requirements System T&E Policy & 1 A S O N N A M J A S O N N A M J A S O N N N A M J J A S O N N N J J A S O N <	Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED VINFUNDED					-				63d	Perform Logistics Support Analysis and Planning	25	· · · · ·
Task Name Dur Successors O N D J F M A M J J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED Input T&E requirements System T&E Policy & 21d 23,24 UNFUNDED Input T&E requirements into section 4.0 of the DST Sys Spec 5d 77,78 TS0.00 Transaction 10:25] UNFUNDED DST Sys Spec 0 0 0 0 0 0 0 0	Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED VINFUNDED			بويغني وين	,Tech Editor[0.3]			\$33	89	36d	Generate a DST Sys T&E Plan (integrate with TWR)	24	
Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED Sys. Test Eng., TRW(0.25) Sys. Test Eng., TRW(0.25) <td>Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED J A M J J A S O N Requirements 21d 23,24 \$15,750.00 \$15,750.00 \$15,750.00 \$15,750.25] Invertioned Invertinde Invertioned Invertind</td> <td></td> <td></td> <td></td> <td></td> <td>25]</td> <td>750.00 Grenard[0:2</td> <td>· .</td> <td>//,/8</td> <td>50</td> <td>Input T&E requirements into section 4.0 of the DST Sys Spec</td> <td>23</td> <td></td>	Task Name Dur Successors O N D J F M A M J A S O N Establish DST System T&E Policy & 21d 23,24 UNFUNDED UNFUNDED J A M J J A S O N Requirements 21d 23,24 \$15,750.00 \$15,750.00 \$15,750.00 \$15,750.25] Invertioned Invertinde Invertioned Invertind					25]	750.00 Grenard[0:2	· .	//,/8	50	Input T&E requirements into section 4.0 of the DST Sys Spec	23	
Task Name	Task Name Dur Successors O N D J F M A M J J A S O N					.,TRW[0.25]	Sys. Test Eng	01 \$15,750.00	23,24	21d	Establish DST System T&E Policy & Requirements		
			Z	ے ۲		3	H	z	Successors	Dur	Took Name		

Figure A.1. Task Schedule. (Sheet 3)

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D	Task Name		Successors	0 1	I D	J	F	M		A	М	J			A ;	S	0	N	D	
43	Perform Work to Resolve Priority "A" and "B" TBDs Using 100% Availability	41d	50,60,70				7								1					
44	Perform HTWOS Analysis	21d	45SS,46,70	\$12,600.0		Claghorn									1					
45	Define Waste Properties	15d	46,70	\$18,000.0)0 }22 20 -0	inknown[2]			/	,					· .					
46	Document Results in a Rqmts Analysis Report	10d	47FF		\$7,500.00	-Clagh	horn[0.5	5],Unknown[0.5],Te	ch Edit	or[0.25]									
47	Input Performance Requirements into HSTD	5d	48		\$1,500.0	0 54 Grena	ard[0.2	5],Otte[0.25]	J				· ·		;				*	
48	Issue Revision "D" of the DST System Spec	10d	:		\$3,000	.00	Grenard	l[0.25],Tech	Editor[0.25]					· .					
49	Conduct AGAs for Known Deficiencies	57d	87,83,108							╘┤──┤	<u></u>									
50	Establish Decision Criteria and AGA Plan	5d	51		\$2	2,250.00	Gren	ard[0.25],Cla	aghorn[0.5]					· .					
51	Conduct AGA	42d	2,67FF,113		\$	94,500.00			Clag	horn[0	.5],Galbra	aith[0.5	J,Unknow	n[2.5],0	Grenard	[0.5],Tech	a Editor[0.	25]		
52	Gain Decision Approval	10d	108					\$5,340.00		Clagho	orn[0.13],	,Galbrai	th[0.13],t	Jnknow	n[0.25]	,Grenard[0.13],Tec	h Editor[(.25]	
53	Generate DST System ICDs	62d	77,108					•							i. V					
54	Generate MOAs.	10d	55	\$6,000.	00 130 JUni	known									1 - 					
55	Work with Organizations Responsible for Interfacing Systems to Generate Major Facility ICDs	42d	56	\$34,	020.00		 ∎an_n	lajor Facility	Reps[0	.75],Gr	enard[0.	5],Tech	Editor[0.1	1]					•	
56	DST System ICD Approval	10d	78,108			\$8,100.	.00	—Major Fac	cility Re	ps,Gre	nard[0.2	5],Tech	Editor[0.1	1]						
57	Perform System Assessment	86d	61					an a												
58	Plan Physical Assessment of Existing System	21	SS+21d,60	\$12,600.	.00	Unknowr	n													
59	Conduct Physical Assessment of Existing System	65d	60SS,62	4	\$126,750.00	 			 Unki	nown[3],Tech E	ditor[0.	25]							
60	Perform Analytical Assessment of Existing System	21d	62		\$2	2,050.00		-Claghorn	[0.5],U	nknowi	n,Tech Ec	litor[0.2	25]							
61	Conduct AGAs for Assessed Deficiencies	57d				·····	1													
62	Establish Decision Criteria and AGA Plan	5d	63					\$3,000.00	, U⊤U	nknow	n									
63	Conduct AGA	4	7FF,87,113					\$52,920.	.00			Unkr	own[2],T	ech Edit	tor[0.1]					
			<u> </u>							L			<u> </u>						7/A-8	

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Figure A.1. Task Schedule. (Sheet 4)

D	Task Name	Dur	Successors	0	1	N	D		J	F		19 M	A		М		J	J		A	s	0	N	4	D
, 4	Gain Decision Approval	10d	108FF			T		-													1				
														\$6,7	80.00		-Unkn	own,To	ech Edi	tor[0.13					
55	Complete TBDs Resolution	108d	77				1		Ŀ												l				
			•													III	M								
66	Update HTWOS to account for RAM factors	10d	67							<u> </u>											1				
								\$6,00	0,00	<u>.</u>	Slaathau	1g ,/ _	-##												
67	Perform Work to Update Priority "A" and "B" TBDs	21d	68											+									2		
	Using RAM Analysis Results					L	· ·					\$3 I	150. 111	00		Ciag	hòrn[().25]			:				
68	Document Results in a Rqmts Analysis Report	10d	69																	_	(
												·		\$9,0	00.00		Clagh	orn[0.:	25],Un	known,1	lech Edit	or[0.25]			
69	Input Updated Performance Requirements into	5d	: 78									.													
	HSTD														\$1,500).00 	Gre	enarα[0	.25],0	tte[0.25	2				•
70	Perform Work to Resolve Priority "C" TBDs	15d							×	2															
							ļ													·					
71	Storage Capacity, Other, Phase I	10d	7255,7355				61	. 500 0			ghorn[0	261													
		15.1						,500.0			gilonito	.23								•					
72	Stored Waste Properties, Other, Phase I	15d	· .				\$2	250 0	10		Claghorn	10.251								1					
	Government Furnished Property Usage	10d	74					.,200.0			Jugiton	10.201								1					
73	Government Furnished Property Usage	100	/4				se se	5,000.0		Un	known									ļ					
74	Document Results in a Romts Analysis Report	5d	75																						
/4	Document freature in a rights Analysis heport							\$3,7	750.00	o 🖍 o	Claghorn	(0.25),	 Unkno	wn						ĺ					
75	Input Priority C TBD Requirements into HSTD	2d	76,78			·				_	•							1							
	· · · · · · · · · · · · · · · · · · ·								\$300	.00 🖌	Grenard	[0.25]				┠─┼	+-			. {					
76	Publish Rev. E Spec. from RDD-100	10d	78	······							-									······		-			· · ·
								\$	9,000	0.00	Gre	enard[0	251,†	RW(0.:	25] ,Ott e	╞┼┼	H								
77	Generate and Approve DST System Spec	56d																							
	,															⁻	'			ş					
78	Publish From HSTD (Rev "F")	10d	79															.		• :					
															\$7,	00.00	0	Gren	ard,Tee	h Edito	r[0.25]				
79	Perform Technical Requirements Review	15d	80															-		;					
	· · · · · · · · · · · · · · · · · · ·														ş	03,5	00.00		Gren	ard[0.5],Unknov	vn[11]			
80	Determine RCR Responses/Resolutions	21d	81														60					.25],deLa	maralO	251	
							ļ									· · · ·	\$0,	500.00			renaruto	.20],ueta	11101 6[0.	~~)	
81	Update HSTD and Release Spec (Rev. 0)	10d														· ·			\$3.000		Gren:	ard[0.25],	Tech Ec	litor[0.2	51
		1001																	+0,000	.00 20					•1
82	Generate Component Specifications	163d																				in the second second			
	Our days On her starts and Comparent Level 72 D	84d	114							× 1				-											
83	Conduct Subsystem and Component Level F&R	84d	114									l	-			-							•		
	Perform Functional Analysis Below DST Sys.		,865S+21d										T		÷										
84	renorm runctional Analysis below UST Sys.		,0000 + 210								\$12	5,000.0	0				Sec. 2		2008 1992	Grenard	[0.5],Cla	ghorn[0.5	5],Unknc	own,Ope	eration
		1		L			i									1					<u>l</u>	. <u>.</u>	A-9/A-	<u></u>	
		:	1							1.						•				·]		07\H0097	the second second		

Figure A.1. Task Schedule. (Sheet 5)

ID Task N 85	Conduct Romts Analysis Potential AGAs rform Specialty Engineering Analyses (Component	84d 42d 75d 75d 30d 5d	90,91				\$0.00
87 Per Lvi 88 89 90	rform Specialty Engineering Analyses (Component I) Perform Test and Evaluation Analysis and Planning Establish Component T&E requirements Input T&E Rqmnts Into HSTD	75d 75d 30d	90,91				
87 Per Lvi 88 89 90	I) Perform Test and Evaluation Analysis and Planning Establish Component T&E requirements Input T&E Rqmnts Into HSTD	75 d 30d	90,91			1	
Lvl 88 89 90	I) Perform Test and Evaluation Analysis and Planning Establish Component T&E requirements Input T&E Rqmnts Into HSTD	75 d 30d	90,91				and a structure in the intervention of the interventin of the intervention of the intervention of the inte
89	Planning Establish Component T&E requirements Input T&E Rqmnts Into HSTD	30d	90,91				
90	Input T&E Rqmnts Into HSTD						
		5d		1			\$40,500.00
91	Generate Component Test & Evaluation		; 1,14				UNFUNDED \$3,750.00 g-Grenard[0.25],Otte
	Plan	45d					\$60,750.00 TRW.Unknown[1.25]
92	Perform Logistics Support Analysis and Planning	57d					UNFUNDED
93	Work with TWR and Ops to Establish Component Logistics Concept and Strategy	15d	94	-			UNFUNDED \$13,500.00 Fink[0.5],Unknown
94	Analyze Component Logistics Support Rgmts Which Impact Design	21d	95,96		· .		\$37,800.00
95	Input Logistics Rqmnts Into HSTD	5d	114				UNFUNDED \$3,750.00 3 Grenard[0.25],Otte
96 .	Update DST Logistics Support Plan	21d					UNFUNDED \$25,200.00 Fink,Tech Editor
97	Perform RAM Analysis	47d					UNFUNDED
98	Work with PLG to Determine Component RAM Rgmts	42d	99				UNFUNDED \$81,392.50
99	Input RAM Rqmts to HSTD	5d	114				UNFUNDED \$390.00 📓 Grenard[0.13]
100	Perform Safety Analyses	42d	106	5			\$31,500.00 Safety Engineer, Tech Editor[0.25]
101	Perform Human Factors Analyses	10d	106	5			UNFUNDED \$4,500.00 Safety Engineer[0.5],Tech Editor[0.25]
102	Determine System Environments	21d	106	3			UNFUNDED \$25,200.00
103	Determine Flexibility and Expansion Rqmts	21d	106	3			UNFUNDED \$15,750.00 Unknown, Tech Editor[0.25]
104	Determine Electromagnetic Interference Romts	5d	106	3		х.	UNFUNDED \$2,250.00 Unknown[0.5],Tech Editor[0.25]
105	Perform Other Constraints Analysis	21d	106	3			UNFUNDED \$31,500.00

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						19		ALL	S O N D
ID	Task Name	Dur	Successors	O N	DJ	F M	A M	UNFUNDED	
106	Input Constraint Requirements into HSTD	2d	114					\$155.00 Grenard[0.	13]
		63d	·	<u>.</u>	· · ·				
107	Update/Generate ICDs	030							
108	Generate Internal Component ICDs		09SS+21d			\$151,200.0		Unknown[4]	
109	Approve Internal Component ICDs	42d	114				\$12,600.00	Unknown[0.5]	
110	Update Major Facility ICDs	42d	111,114			\$25,200.		Unknown	
111	Approve Major Facility ICD Revisions	21d				2 	\$6,300.0	00 Unknown[0.5]	
112	Generate and Approve Subsystem and Component Specifications	127d				· · ·	,		
113	Build Component Specification Structures	750	114	•			\$56,250.00		Unknown,Otte[0.25]
114	Issue Rev "A"s of Component Specifications		,11955,116					\$63,000.	00-Unknown[4],Tech Editor
115	Internal (PHMC) Reviews and RCR Generation	300				1 3			\$0.00
116	Determine RCR Responses/Resolutions	300	1755+100	ł					\$72,000.00
117	Update HSTD and Release Specs (Rev. 0)	210	d .			·.			\$63,000.00 }
118	Perform Project Definition (sub DST Lvl)	42	d					· .	
119	Generate Integrated Project Scope Definitions	42	d					\$56,700	.00
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Table A.1. Task Schedule Notes. (Sheet 1)

1	Project Management (FY98) Rollup of project management activities for FY98
2	Project Planning, Control, and Integration Generate & maintain a PMP for Planning and controlling activities. LOE activity for the Project Management. OUTPUT: the management plan (PMP).
3	Resolve 1st Draft DST Spec RCRs with DOE Rollup of activities to resolve DOE RCRs.
4	Meet With DOE to Agree Upon Actions Reach agreement with DOE on RCR responses. OUTPUT: agreed to review comments records (RCRs) responses.
5	Update RCR Response Column Update RCR response columns to reflect agreements. OUTPUT: updated review comments records.
6	Issue Rev "B" of DST System Spec. Provides DOE a spec update incorporating specific changes satisfying "easy" RCR incorporations. OUTPUT: an updated DST System Specification, issued as Revision "B".
7	Update DST System Remts Planning Captures commitments in RCRs and inputs them into PMP. OUTPUT: updated management plan (PMP) with commitments.
8	Obtain DOE/RL concurrence with RCR disposition This activity presents the DST System Spec RCR dispositions for DOE/RL to concur. OUTPUT: DOE/RL concurrence on review comments records
	disposition.
9	Finalize DST System Rqmts Development Planning Rollup of Concentrated activities to generate the initial FY98 PMP.
10	Perform Initial Integrated Project Planning (other than TBD resolution) Activities to generate the initial PMP (FY98), excluding TBD resolution detailed planning. This activity includes integration of schedule with mid-level
	logic and RTP scheduling activities. OUTPUT: concurrence with Readiness to Proceed and mid-level logic schedules.
11	Finalize TBD Resolution Planning Rollup of activities for planning TBD resolution.
12	Finalize TBD List Scrubs the TBD list now in the specification. OUTPUT: updated Hanford Site Technical Database (HSTD) and generates a TBD list.
13	Issue Rev "C" of the DST System Spec. Provides DOE a specification update incorporating finalized TBD list and any changes as a result of RCR concurrence. OUTPUT: an updated system
	specification issued as revision "C".
14	Determine TBD Priorities Prioritizes the TBDs against a predetermined set of criteria. OUTPUT: list of TBDs in priority.
15	Determine Means of Resolving-TBD Identifies what we must do to resolve each TBD. Some by modeling, other by legwork, etc. OUTPUT: a set of steps to resolve the TBDs.
16	Plan Work Establishes resources, cost and schedule to resolve TBDs. Also gains commitments from supporting organizations. OUTPUT: an agreed to work plan,
	including resources needed to resolve TBDs.
17	Perform Integrated Project Management Planning Rolls together activities "Perform Initial Integrated Proj. Planning" through "Plan Work" into single integrated plan. OUTPUT: an integrated project
	management plan.
18	Publish PMP A milestone marking the publishing of the PMP. OUTPUT: a published integrated project management plan.
19	Perform Risk Analysis Qualitative analyzes and manages programmatic risks and integrates them with the TWR risk management program. OUTPUT: a prioritized and
	approved risk list for DST, Phase I.

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	Rollup of Specialty Engineering Activities.
21	Perform Test and Evaluation (T&E) Analysis and Planning Rollup of Activities to Establish DST System T&E Requirements and Planning.
22	Establish DST System T&E Policy & Requirements This activity develops DST System design verification requirements and supports TWR. OUTPUT: a supporting document, including guidelines on
	selecting T&E methods, and results of application, this is to be placed in section 4 of the system spec. Note: Integration w/ TV/RS level data will be
	reflected when it becomes available.
23	Input T&E requirements into section 4.0 of the DST Sys Spec This activity takes the results of activity "Establish DST System T&E requirements" and inputs the data into the Hanford Site Technical Database
	(HSTD), using an approved change request, for inclusion in the DST System Spec. OUTPUT: updated HSTD file.
24	This activity analyzes how DST System level testing and evaluation will be accomplished. It looks at design verification, acceptance test (ATP), and
	operational test (OTP) at the system level. OUTPUT: a test and evaluation plan integrated with TWR, to feed the TWRS TEP.
25	Perform Logistics Support Analysis and Planning This is a rollup of activities which establish logistics support requirements.
26	Work with TWR and Ops to Establish a Logistics Concept and Strategy DST philosophy is to start this activity and allow TWR to use if they so desire. OUTPUT: A logistics support concept/strategy.
27	Analyze DST System Logistics Support Romts This activity analyzes the logistic support requirements for the system by searching other documents. OUTPUT: an acceptable set of DST logistics
	support requirements.
28	Input Logistics Requirements for DST System Spec into HSTD. This activity inputs the logistic support requirements for the system into the Hanford Site Technical Database (HSTD) using an approved change request
	OUTPUT: an updated set of requirements in the HSTD.
29	Generate an Integrated Logistics Support Plan This activity generates a logistics support concept. OUTPUT: an integrated logistics support document.
30	Perform RAM Analysis Rollup of activities for Reliability, Availability, and Maintainability analyses.
31	Work with PLG to Determine DST System RAM Romts This activity works with PLG to determine DST RAM requirements. OUTPUT: a set of reliability, availability, and maintainability requirements.
32	Input Romts to HSTD. This activity takes results from the RAM analysis work and inputs into the Hanford Site Technical Database (HSTD) using an approved change request.
	OUTPUT: an updated set of requirements in the HSTD.
33	Perform Safety Analyses Confirm Hazard Class and provide a pointer to the emergency respones to the credible accidents recorded in the bio. Verifies adequacy of requirement
	in the System Specification section 3.3.6 and 3.3.8 and assigns Hazard classes. OUTPUT: a verified set of safety requirements.
34	Perform Human Factors Analyses Verifies adequacy of requirements in System Specification section 3.3.7. OUTPUT: a verified set of Human Factors requirements.
35	Identify Natural System Environments Identify the appropriate natural environments requirements (e.g. Chemical, Radiation, Vibration, Shock), from existing equiment or work activity.
	OUTPUT: a set of natural environment requirements, traceable to a supporting document.
36	Determine Induced System Environments To determine values of induced environments. OUTPUT: a set of induced environment requirements, traceable to a supporting document.
37	Determine Flexibility and Expansion Policy & Remts This activity develops "flexible and expandable" policy not limited to Phase 1, then establishes requirements applicable to the DST system. OUTPUT: a
	policy, and a set of requirements for flexibility within Phase 1 and expansion readily expanded to Phase 2.

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Table A.1. Task Schedule Notes. (Sheet 3)

	The first state of the state of
	This activity develops the specific EMI (the generation and tolerance to) requirements (that cover both emit. and resistance to EMI, required materials,
~~	unallowed materials, required designs, unallowed designs). OUTPUT: a set of EMI requirements.
39	Perform Other Constraints Analysis This activityperforms reviews for all other constraints (e.g., Documentation, training, and security), the requirements document to ensure it is compatible
	and traceable. OUTPUT: a completed review of the requirements in the system specification section 3.3.
40	Input Constraint Requirements into HSTD This activity takes the constraint requirements generated in the previous tasks and inputs into the Hanford Site Technical Database (HSTD) using an
	approved change request. OUTPUT: an updated set of requirements in the HSTD.
41	Complete "Claghorn" AGA This activity is a predecessor to part of the baseline comparison. This AGA is needed to validate W-211's architecture and to give an estimate of pump
	performance requirements. OUTPUT: an AGA report and an approved decision paper on the chosen alternative.
42	Resolve Critical Performance TBDs A rollup of activities required to resolve priority "A" and "B" TBDs in the DST System Spec.
43	Perform Work to Resolve Priority "A" and "B" TBDs Using 100% Availability Activity to resolve Priority "A" and "B". Spec section 3.2.1, TBDs Assume 100% Availability. OUTPUT for this set of tasks: resolved priority A and B
	TBDs.
44	Perform HTWOS Analysis This activity uses the HTWOS model to generate and analyze Reliability, Availability, and Maintainability estimates. OUTPUT: an HTWOS analysis
	report.
45	Define Waste Properties This activity defines ranges of physical waste properties associated with waste storage. This are priority "A" and "B" TBDs in the system spec that HTWOS is unable to provide. OUTPUT: a waste properties report.
46	Document Results in a Rqmts Analysis Report OUTPUT: a document of the analytical work used to resolve TBDs.
47	Input Performance Requirements into HSTD Inputs analysis results into the Hanford Site Technical Database (HSTD) using approved database change requests. OUTPUT: an updated set of requirements in the HSTD.
48	Issue Revision "D" of the DST System Spec Produces a system specification from the Hanford Site Technical Database (HSTD) that includes the resolved TBDs ("A" and "B"). OUTPUT: an update system specification issued as Revision D.
49	Conduct AGAs for Known Deficiencies Rollup of activities of AGAs for known deficiencies.
50	Establish Decision Criteria and AGA Plan This activity establishes the decision attributes for selecting options for resolving known deficiencies. Know deficiencies include equipment/systems to agitate or mix the waste, to flush the pipeline, to add chemicals, and to agitate or mix of the waste. OUTPUT: an AGA plan and the decision criteria.
51	Conduct AGA This activity conducts the analyses for evaluating component alternatives for known deficiencies. OUTPUT: an AGA report.
52	Gain Decision Approval This activity presents the information (AGAs) to a decisionmaker for selection of components for resolving known deficiencies. OUTPUT: an approved
	decision paper with the selected alternative.
53	Generate DST System ICDs Rollup of activities to generate ICDs for the DST System Spec.
54	Generate MOAs. Develop letters documenting the agreements to work interface control between DST System and other Project's Major Facilities (e.g., Waste
	Management's Central Waste Complex). Agreements include responsibility for developing and maintaining the interface control document (ICD) associated with the DST System interface. OUTPUT: Memorandums of Agreement.
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	Table A.1. Task Schedule Notes. (Sheet 4)
	This activity identifies all DST system interfaces based on the DST System interfaces captured int the HSTD and based on project personnel interviews.
	Updates the HSTD after receiving concurrence on ICDs with developers of other major facility specifications (with whom we have MOAs). OUTPUT:
	Interface Control Documents.
56	DST System ICD Approval Gain signatures to approve ICDs. OUTPUT: an approved set of ICDs
57	Perform System Assessment Rollup of activities for assessing the system, both physically and analytically.
58	Plan Physical Assessment of Existing System This activity produces a plan to physically assess the existing system capabilities and condition. OUTPUT: an approved plan to assess the existing system.
59	Conduct Physical Assessment of Existing System This activity implements the physical assessment plan. Visually inspects the physical assets. This task will require the personnel trained to inspect and also the necessary approvals to access the existing equipment. OUTPUT: a report of the physical assessment.
60	Perform HTWOS and other analyses of existing system to determine operational capabilities. OUTPUT: an analysis report of the assessment.
61	Conduct AGAs for Assessed Deficiencies Rollup of activities for Alternative Generation Analyses of assessed deficiencies.
62	Establish Decision Criteria and AGA Plan This activity establishes the decision attributes for selecting options for assessment deficiencies. OUTPUT: an approved AGA plan and the decision
	criteria.
63	Conduct AGA This activity conducts the analyses for evaluating component alternatives for assessing deficiencies (allows for short-comings). OUTPUT: an AGA report with the selected alternative.
64	Gain Decision Approval This activity presents the information (from the AGAs) to the decisionmakers for selection of components for resolving assessed deficiencies. OUTPUT:
	an approved alternative.
65	Complete TBDs Resolution Rollup of activities to resolve TBDs.
66	Update HTWOS to account for RAM factors This activity is to update HTWOS to account for RAM factors.
67 ·	Perform Work to Update Priority "A" and "B" TBDs Using RAM Analysis Results This activity uses HTWOS and other analyses to update TBDs ("A" and "B") using RAM estimates. OUTPUT: an updated list of priority A and B TBDs.
68	Document Results in a Romts Analysis Report Document analytical work used to update TBDs ("A" and "B"). OUTPUT: a Requirments Analysis Report.
69	Input Updated Performance Requirements into HSTD Inputs analysis results into the Hanford Site Technical Database (HSTD) using an approved change request. OUTPUT: an updated HSTD.
70	Perform Work to Resolve Priority "C" TBDs This work describes and performs the work to resolve type "C" TBDs. OUTPUT from these tasks: an updated list of priority C TBDs.
71	Storage Capacity, Other, Phase I This activity resolves the storage capacity TBDs in Phase I. OUTPUT: an update to the staorage capacity TBDs.
72	Stored Waste Properties, Other, Phase I This activity provides the information (properties) for items such as the Waste Evaporator, that are presently Priority "C" TBDs. OUTPUT: an update to the waste properties TBDs.
73	Government Furnished Property Usage
13	This activity provides a policy (at system assessment) of what equipment will be used by the contractor that is to be supplied by the Government. OUTPUT: an approved policy of gov. furnished equip.
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	Table A.1. Task Schedule Notes. (Sheet 5)
	Document analytical work used to resolve TBDs ("C"). OUTPUT: a Requirements Analysis Report.
75	Input Priority C TBD Requirements into HSTD Inputs analysis results into the Hanford Site Technical Database (HSTD) using an approved change request. OUTPUT: an updated HSTD.
76	Publish Rev. E Spec. from RDD-100 This activity produces the System Specification from the HSTD. OUTPUT: An updated system specification, issued as Revision E.
77	Generate and Approve DST System Spec Rollup of activities to generate, from HSTD, a Rev E of the system specification (incorporates AGAs, etc.)
78	Publish From HSTD (Rev "F") This activity produces a System Specification from the HSTD, that has the updates and approval of AGAs. OUTPUT: an updated system specification,
	issued as Revision E.
79	Perform Technical Requirements Review This activity consists of a Technical Requirements Review of the DST System Specification and generation of RCRs (comments). OUTPUT: a reviewed
	system specification and a set of comments.
80	Determine RCR Responses/Resolutions This activity dispositions comments, provides resolution, and closure of the RCRs. OUTPUT: a set of comment dispositions and responses.
81	Update HSTD and Release Spec (Rev. 0)
	This activity produces a specification from the HSTD after the updates are incorporated. OUTPUT: a final draft system specification, issued as Revision 0.
83	Conduct Subsystem and Component Level F&R Rollup of Functions and Requirements activities for the components.
84	Perform Functional Analysis Below DST Sys. Begin development of planned level 2 specifications. Perform needed Functional, Requirements, Architectural, and Test and Evaluation analyses to
	develop the required level 2 specifications. OUTPUT: completed functional analyses on components.
85	Conduct Rqmts Analysis This activity generates preliminary requirements for the component functions needing project level definition; updates the functional analyses to resolve
	needs identified during the preliminary analyses; and generates requirements for the component functions needing project level definition. OUTPUT: a
	completed requirements analysis for components.
86	Potential AGAs This activity provides a placeholder in the event additional AGAs are identified to determine additional components. This may identify additional
	specifications that need to be generated. OUTPUT: Completed AGAs and Component requirements.
87	Perform Specialty Engineering Analyses (Component LvI) Component level rollup of numerous analyses in the Specialty Engineering areas.
88	Perform Test and Evaluation Analysis and Planning Rollup of activities for analysis and planning of Test and Evaluation.
89	Establish Component T&E requirements This activity develops component design verification requirements and integrates and coordinates component T&E requirements with the system and operations level. OUTPUT: Component T&E requirements for section 4 of the Component Specification completed.
90	Input T&E Rgmnts Into HSTD
91	Inputs the test and evaluation requirements into the HSTD using an approved change request. OUTPUT: an updated HSTD. Generate Component Test & Evaluation Plan
	This activity generates the test and evaluation planning requirements for the environments as coordinated with TWR and Operations. OUTPUT: Component T&E Plans.
92	Perform Logistics Support Analysis and Planning Rollup of activities for analysis and planning for component level Logistics Support.
93	Work with TWR and Ops to Establish Component Logistics Concept and Strategy This activity looks at specific component logistics concepts for components. OUTPUT: Component level logistics concepts reports.
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This activity analyzes the logistics support requirements for the components. OUTPUT: component logisitics support requirements for input to component specification. 95 Input Logistics Remnts Into HSTD This activity inputs the logistics support requirements into the HSTD using an approved database change request. OUTPUT; an updated HSTD. 96 Update DST Logistics Support Plan Updates the DST LSP with component information from the logistic support concept reports. OUTPUT: an updated Integrated Logistics Support Plan (ILSP). 97 Perform RAM Analysis Rollup of activities for analysis of component level Reliability, Availability, and Maintainability. Work with PLG to Determine Component RAM Ramts This activity works with PLG to assign component Reliability, Availability, and Maintainability requirements using the system requirements. OUTPUT: Component RAM requirements. 99 Input RAM Ramts to HSTD This activity takes the RAM results and inputs into the HSTD for component specification(s). OUTPUT: an updated HSTD. 100 Perform Safety Analyses Review Unresolved Safety Question (USQ) evaluation of the new components and establish a preliminary safety class. OUTPUT: USQs, a letter report assigning component preliminary safety classes, and a report safety design guidelines. 101 Perform Human Factors Analyses This activity provides the requirements in component specifications (section 3.3.6). OUTPUT: a supporting document completed Human Factors requirements for the component specifications. 102 Determine System Environments This activity generates the requirements for the component specifications (section 3.3.7). OUTPUT: a set of Component system environments requirements. 103 Determine Flexibility and Expansion Romts This activity generates the flexibility and expansion requirements applicable to components. OUTPUT: a set of Component flexibility and expansion requirements. 104 Determine Electromagnetic Interference Romts

This activity develops the specific EMI requirements for components (that cover both emit. and resistance to EMI). OUTPUT: an allocation of the Component EMI requirements.

105 Perform Other Constraints Analysis This activity evaluates constraints identified in DST specification and additional constraint sources for applicability to component in question. In addition, this activity has to convert the constraints to measurable design requirements. OUTPUT: a completed analysis of the constraint requirements.

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106 Input Constraint Requirements into HSTD This activity inputs the constraint requirements into the HSTD using an approved change request. OUTPUT: an updated HSTD.

107 Update/Generate ICDs Rollup activities for updating and generating DST and component Interface Control Documents.

- 108 Generate Internal Component ICDs This activity generates the new ICDs (internal and Major Facility) for Phase 1 components. OUTPUT: a set of Component ICDs.
- 109 Approve Internal Component ICDs Gain signatures to approve component ICDs. OUTPUT: approved Component ICDs.
- 110 Update Major Facility ICDs This activity updates the major facility ICDs. OUTPUT: updated major facility ICDs.
- 111 Approve Major Facility ICD Revisions Gain signatures to approve major facility ICDs. OUTPUT: approved major facility ICD revisions.
- 112 Generate and Approve Subsystem and Component Specifications Rollup of activities for component and subsystem specification generation and approval.

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APPENDIX B

WBS COST ACCOUNTS

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COST ACCOUNT

WBS 1.1.3.1.01.03

TASK #	TASK TITLE	FY 1998 BUDGET (K)
1D2DD30201	DST Specification Support	332.1
1D2DD30202	DST System Level Performance Analysis	74.6
1D2DD30205*	Technical Requirements Review	103.7
1D2DD30206	DST Component Level Functional Analysis	110.1
1D2DD30207	DST Comment Level Performance Analysis	53.3
1D2DD30208	Trade Studies/AGAs	106.5
1D2DD30209*	Design Requirement Documents	311.0
1D2DD30210	DST System Specification	70.7
1D2DD30211	Configuration Management	79.6
1D2DD30212	DST Interface Control Documents	70.7
1D2DD30213	DST Project Acquisition Baseline	29.5
1D2DD302A3	DST Risk Analysis	79.6
1D2DD302A8	DST Trade Studies/AGAs	70.0
1D2DD302B3	DST Life Cycle Cost/Schedule	120.5
	Total	\$1,616.9

Note: These tasks have been reprogrammed to support the speciality engineering tasks (Appendix A) at the systems level.

DISTRIBUTION SHEET								
То	From				Page 1 of 1			
Distribution	Distribution TJ Conrads			Date				
Project Title/Work Order LMR	230				EDT No. 623026			
Project Management Plan DST system Specification Dev. ECN No.								
Name		MSIN	Text With All Attach.	Text On	l <u>y</u>	Attach./ Appendix Only	EDT/ECN Only	
TJ Conrads RP Marshall RW Powell RL Treat CE Grenard WC Miller CP Shaw		H5-61 H5-61 H5-03 H5-03 H5-61 H5-25 H5-61	X X X X X X X X X (ad	vanced co				
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