AR TARGET SHEET

The following document was too large to scan as one unit, therefore it has been broken down into sections.

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EDMC # 9294

SECTION 2 OF 2

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 4001-1V-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0014
FACILITY: TREATMENT
TITLE: HANFORD WASTE VITRIFICATION PLANT TREATMENT
PRIORITY: 3 NEPA: EIS
B&R CODE: EW-30-10-20 DOE PROGRAM: EM CATEGORY: WM
A-106: D173 TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: ANTTONEN, JH PHONE: 509-376-7591

== FUNDING SUMMARY ==

					BUDGET AUTHORITY ($000's)			FUNDING ISSUE *	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING					17992	9574	-660	9705	4011
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS					10853	45754	61734	-6845	-112636
TOTAL	0	0	0	0	28845	55328	61074	2860	-108625

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/06/91	>Key decision #3		
7/07/91	>Initiate construction (2 Yr TPA acceleration)		
6/30/96	>Complete construction (2 Yr TPA acceleration)		
9/15/97	>Key Decision #4		
12/22/97	>Initiate hot operations (2 Yr TPA acceleration)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The correct FY 1996 total value for IRB use is -$101,780; the correct line item value is -$105,791. The correct FY 1993 total value is $36,179; the correct operating value is -$9,575.

In accordance with the Defense Waste Management Plan and Hanford Defense Waste Program, the Hanford Waste Vitrification Plant (HWVP) has been

FY 92 ADS ID: 4001-1V-0

established to immobilize liquid high-level defense waste and prepare for shipment to a geologic repository. This sheet presents the delta funding levels for 2 year accelerated case with startup in 1997; see 4000-1V-0 for base funding case. The HWVP will vitrify pretreated waste into borosilicate, cast the glass into stainless steel canisters, and store the canisters until they are shipped to a federal geologic repository.

The current facility design includes a single production line with a capacity of 100 kg of vitrified waste (glass) per hour. The HWVP includes the main process building (Vitrification Building), Canister Storage Building, backup power generation, process steam boiler, feed and liquid waste storage tanks, feed and waste transfer pipelines, bulk chemicals receiving and storage, maintenance, and office facilities.

The HWVP vitrification process is designed to produce glass containing about 75 wt% glass-forming additives and 25 percent waste oxides. Waste feed is transferred as a slurry to the HWVP via underground, encased transfer lines. The feed is concentrated by evaporation and mixed with glass frit, along with chemical additives, and internally recycled waste to yield a concentrated melter feed slurry. The plant is designed to handle a wide range of alkaline feed slurries produced at Hanford. A large feed evaporation and liquid waste handling capacity is provided.

FUNDING BASIS:
The funding requirements defined in this ADS are either the incremental increases or decrease for the Budget Authority for the years FY 1992-1996 identified in the PRIORITY 1 ADS 4000-1V-0.

A Preliminary Design Cost Estimate was prepared in April 1990 indicating a total estimated cost (TEC) increase to $965M with a December 1997 Hot Startup date. The difference between the $1,060M estimate identified in ADS 4000-IV-0 and the $965M estimate in this ADS is $95M of cost savings due to a two year schedule acceleration. An independent cost estimate review was conducted in March/April 1990 with a reconcillation meeting conducted in April 1990.

The schedule acceleration cost savings required completing plant and hot start two years earlier than planned from December, 1999 to December, 1997. We revised our BA/BO profile to support the schedule acceleration, and as a result incremental increase or decreases were identified based on the BA requested for FY 1992-1996 in ADS 4000-1V-0.

Besides the Vitrification Building, other major cost items are: 1) the process vessels and associated equipment; 2) the melter/turntable; 3) distributed control system; 4) health protection monitoring equipment; 5) the in-cell cranes; and 6) the canister decontamination equipment.

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The cost estimate for the expense work on the project was developed based upon various plan and work scope documents developed and updated this past year. An example of these are: technology, start up plans, and waste form qualification documentation. As a result of work identified in these documents there was an increase in the total expense budget. The incremental increase in the FY's is due to the acceleration of plant design/construction process which requires expense funded activities to be completed at an earlier date.

PRIORITY RATIONALE:
Priority 3 rationale is based on accelerating hot startup two years to achieve savings to the project. The accelerated case is not required under the Tri-Party Agreement.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the budget/schedule is medium because the plant has just entered the Detailed Design phase.

ACCOMPLISHMENTS TO DATE:

- Submitted the Resource Conservation Recovery Act (RCRA) Part B application - July 28, 1989.
- Key Decision No 2 - Approval by Energy Systems Acquisition Advisory Board (ESAAB) on November 16, 1989.
- Selected General Construction Contractor - December 4, 1989.
- Architect/engineer commenced Detailed Design - January 15, 1990.
- Preliminary Design approximately 74 percent complete - March 30, 1990.
- Final Preliminary Design (Bottom-up) Cost Estimate Complete - April 1990

ACTIVITY ALTERNATIVE:
Allow the high-level waste to remain as is in the double-shell tanks. This course of action will require the construction of new tanks which will violate the Tri-Party Agreement and not meet the intent of DOE Order 5820.2A. It will also result in a violation of RCRA regulations, which do not allow indefinite storage of hazardous wastes.

CONSTRUCTION PROJECTS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

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FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEM				
	88-D-173	HANFORD WASTE VITRIFICATION PLANT ACCEL	965000	92098

Prepared by: RA SMITH

Approved by: JH ANTTONEN

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 7008-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0343
FACILITY: 324 & 325 BUILDINGS
TITLE: WASTE MANAGEMENT SUPPORT FOR CLEANOUT OF 324/325 BLDG HOT CELLS
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-03
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1990 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING			1300	200					
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	1300	200	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>CLEANOUT AND DECONTAMINATE PART OF B-CELL 324 BUILDING (SUPPORTS M-03-00).		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The 324 and 325 Building Hot Cell Cleanout Program is an ongoing multi-year activity initiated in FY 1988, in which three hot cells located in 324 Building and three hot cells in 325 Building in Hanford's 300 Area are being cleaned out and decontaminated.

The cleanout activities include: size reduction of obsolete equipment, decontamination of dismantled equipment and waste box loading and shipment. The cell cleanout work will also involve the packaging and storage of Special Case Nuclear Wastes not currently accepted for disposal. A detailed Program Plan has been published.

The Hanford Waste Vitrification Plant (HWVP) is planning to use three

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 7008-PW-0

of the six hot cells (B & C-Cells in 324 and A-Cell in 325) for radioactive testing activities beginning in October 1990.

Funding in FY-91 is needed to support the cleanout of a portion of B-Cell, 324 Building for HWVP testing (TPA milestone M-03). When combined with RL 7009 and RL 7010, the project provides the total funding for the cleanout of the 324 and 325 Building Hot Cells.

FUNDING BASIS:
Estimates provided in FY 1991 budget submittal. Estimates are based on detailed planning information as contained in the Plan for the 324 and 325 Hot Cell Cleanout Program.

PRIORITY RATIONALE:
The cleanout of these cells is necessary to meet Tri-Party Agreement Milestone M-03. In addition, the HWVP will use these cells to perform radioactivity testing in support of the completion of other Tri-Party Agreement milestones, M-02 and M-10.

LEVEL OF CONFIDENCE RATIONALE:
The cost and schedule estimates for this project result from a detailed analysis of the cleanout activities as documented in a Project Plan. The level of confidence in these estimates is high.

ACCOMPLISHMENTS TO DATE:
The cleanout, decontamination, and window replacement for C-Cell in 324 Building has been completed.

The cleanout of the non-melter B-Cell equipment in B-Cell of the 324 Building has been completed. Cleanout is ongoing to satisfy cell space requirements of the HWVP.

ACTIVITY ALTERNATIVES:
The funding support for this ADS is required to achieve adequate cell cleanout to achieve the indicated milestone. A shortfall in this funding level will delay radioactive testing for the HWVP which will jeopardize the final HWVP design. This in turn could increase the cost and technical risk of the HWVP.

Prepared by: MS HANSON

Approved by: JJ SUTEY

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 7014-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: 300 AREA PROCESS SEWER (PNL)
TITLE: LIQUID WASTE SOURCE CONTROL AND MINIMIZATION
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-05 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-17
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE *	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING			400	349	400				
CAPITAL EQ									
GP PROJECTS			3800	3317	3800				
LINE ITEMS									
TOTAL	0	0	4200	3666	4200	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
10/31/90	>INITIATE DESIGN		
1/01/91	>BEGIN CONSTRUCTION ACTIVITIES		
12/31/92	>COMPLETE CAPITAL PROJECTS		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The Tri-Party Agreement established milestone M-17-06 to cease all discharges to the 300 area Process Trenches by December 31, 1991. The alternative selected to meet this milestone requires 1) a reduction in the flow rate of the waste stream and 2) onsite treatment, sampling, and discharge for all effluent.

The current waste stream flow from all 300 Area facilities to the process sewer is estimated to be approximately 1,300 gal/min. This waste stream must be reduced to an estimated level of approximately 200 gal/min.

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To achieve this reduction, the waste stream from PNL facilities in the 300 Area must be reduced by approximately 400 gal/min. Expense upgrades such as rerouting some flows to the sanitary sewer and capital modifications such as installation of closed loop cooling systems are required to achieve the waste stream reduction. This project will make the modifications in PNL facilities (329, 331, 337, 3720, 306, 318, 324, 325, 326, and 3745-B) to achieve the estimated flow reductions. The flow reduction from the 320 building will be accomplished as part of an existing project (ADS 8010).

FUNDING BASIS:
Interim reports for 300 area process sewer and facilities engineering estimates. This is a recently identified FY 1991 requirement to meet the TPA milestone. Since this requirement was not originally identified in the FY 91 President's budget, it is also included in the FY 92 request for planning purposes. If FY91 funding is limited to the revised FY91 "budget" level of $3,666K, a portion of the work slips to FY92. This will result in a slippage in complying with TPA Milestone M-17-06.

PRIORITY RATIONALE:
This activity is required to comply with Tri-Party Agreement milestone M-17-06, to cease all discharges to the 300 Area Process Trenches. At the revised "budget" level, the total waste stream reduction could slip up to one year beyond the current TPA milestone date.

LEVEL OF CONFIDENCE RATIONALE:
Low. Estimates were developed from a cursory review of alternatives to reduce waste stream flow and preliminary sketches. A follow-on engineering study will be performed.

ACCOMPLISHMENTS TO DATE:
Interim report has been completed.

ACTIVITY ALTERNATIVES:
Short of closing strategically-required facilities, the only other option is continue present operations which would not comply with Tri-Party Agreement. Neither alternative is acceptable.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	92D-XXX	CLOSED LOOP COOLING SYSTEM, 306 BLDG	449	92075
	92D-XXX	CLOSED LOOP COOLING SYSTEM, 318 BLDG	339	92076
	92D-XXX	CLOSED LOOP COOLING SYSTEM, 324 BLDG	1125	92077

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92D-XXX	CLOSED LOOP COOLING SYSTEM, 325 BLDG.	1329	92078
92D-XXX	COOLING TOWER, 326 BLDG	389	92079
92D-XXX	CLOSED LOOP COOLING SYSTEM, 3745-B BLDG	169	92080

Prepared by: MS HANSON

Approved by: JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8000-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0153
FACILITY: HANFORD SITE
TITLE: ENVIRONMENTAL MONITORING/SURVEILLANCE (PNL)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: CAA, CWA, NEPA, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: HOLTEN, RA PHONE: 509-376-7461

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	6257	7361	10100	7571	10100	10100	10100	10100	10100
CAPITAL EQ		1500	500		500	500	500	500	500
GP PROJECTS		500	260		260	260	260	260	260
LINE ITEMS									
TOTAL	6257	9361	10860	7571	10860	10860	10860	10860	10860

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/90	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY1989 (ANNUAL).		
6/30/91	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY 1990 (ANNUAL).		
6/30/92	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY 1991 (ANNUAL).		
6/30/93	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY 1992 (ANNUAL).		
6/30/94	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY 1993 (ANNUAL).		
6/30/95	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY 1994 (ANNUAL).		
6/30/96	>HANFORD SITE ENVIRONMENTAL REPORT FOR CY 1995 (ANNUAL).		

== NARRATIVE ==

ACTIVITY DESCRIPTION:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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The Pacific Northwest Laboratory (PNL) conducts environmental monitoring and surveillance activities under the U.S. Department of Energy Hanford Environmental Management Program (HEMP). These activities are described further in a Memorandum of Understanding between Westinghouse Hanford Company (WHC) and Battelle, Pacific Northwest Laboratories, the research and development contractor. PNL projects related to HEMP include Hanford Environmental Oversight, Surface Environmental Surveillance, Ground-Water Surveillance, Meteorology and Climatology, Wildlife Resources Monitoring, Radiation Standards and Calibration, Cultural Resources, Dose Overview, and National Environmental Policy Act Documentation and Implementation. These projects include joint plans, agreements, and sampling efforts with the States of Washington, Oregon, the U.S. Geological Survey, the Indian Tribes and other interested parties.

Environmental protection and assessment during waste management and environmental restoration operations requires implementation and continuity of a comprehensive environmental monitoring and surveillance program to assure compliance with applicable orders and statutes.

Prepare environmental monitoring plans, conduct environmental monitoring and surveillance, calculate the radiological dose to humans on and offsite, report the results annually, and implement a program to keep the public and local, state, and federal agencies informed about Hanford environmental activities.

Environmental media sampled include air, surface and ground water, soils and vegetation, fish and wildlife, foodstuffs, and cultural and archeological resources. This is a Hanford site-wide activity and includes the offsite environment. As low levels of contaminants are exiting the site via the Columbia River, continuous monitoring is required.

IMPACTS OF FY 91 BUDGET REDUCTION

PNL conducts environmental surveillance and oversight activities for the DOE to identify the statu os radiological and nonradiological discharges to the environment. These activities include joint plans, agreements, and sampling efforts with the States of Washington and Oregon, the U.S. Geological Survey, the Indian Tribes, and other interested parties. The environmental or human risk of Hanford Operations and existing environmental contamination would be unknown if these activities were not completed. The radiological dose must be documented because of the implications to human health. DOE has verbal and written commitments with the Environmental Protection Agency (EPA), the State of Washington, and the Indian Tribes, and this activity is required by the Clean Air Act, Clean Water Act, NEPA and various regulations, DOE Orders, and commitments, and would be in violation of Admiral Watkins' 10-Point Plan, NEPA and various Federal Acts. In

fact, results of the upcoming Tiger Team visit to Hanford will likely result in additional, rather than decreased funding requirements.

FUNDING BASIS:
Cost estimates based on historically proven resource requirements. Current funding in FY 1990 is $9,474. The FY 1990 ADS column is consistent with the level directly funded through assessments to other EM programs. The FY 1991 required level includes direct funding the full scope of the program. The FY 1991 target level was incorrect in that it did not include the meteorology, climatology, or cultural resources portion of the program. The FY 1990 budget column also did not include the meteorology, climatology, or cultural resources.

PRIORITY RATIONALE:
This is an ongoing activity. The environmental or human risk of Hanford Operations and existing environmental contamination would be unknown if the activity were not completed. Failure to continue this activity may allow the existence of imminent health and safety situations, the existence of which would not be known. The radiological dose must be documented because of the implications to human health by being able to identify radiation doses from Hanford low-level releases compared to natural background doses. DOE has verbal and written commitments with EPA and the State of Washington and this activity is required by the Clean Air Act, Clean Water Act, NEPA and DOE Order 5400.1 and .6. The program has a 45-year environmental sample database to be used to verify transport of contaminants to the environment. Discontinuance of the program will result in loss of the 45-year database. A significant reduction from the required budget would result in inability to comply with DOE Order 5400.1 and .6.

LEVEL OF CONFIDENCE RATIONALE:
There is a high level of confidence in the schedule and budget for this activity due to years of experience.

ACCOMPLISHMENTS TO DATE:
All environmental media have been sampled and results reported as required and scheduled.

Results including the radiological dose to humans have been reported annually by June 1 as required (DOE Order 5400.1).

ACTIVITY ALTERNATIVES:
The site could operate its facilities without environmental monitoring. Impacts to the environs and the surrounding population would be unknown. Program is required by various DOE Orders, and statutes, and agreements with Washington State and EPA. Failure to implement program

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results in noncompliance.

Prepared by: PKH
MS HANSON

Approved by: JLRB
RA HOLTEN

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8002-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0138
FACILITY: 300 AREA HAZARDOUS WASTE FACILITIES
TITLE: WASTE MANAGEMENT OPERATIONS (PNL) (CONTINUITY OF OPERATIONS)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-20
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE *	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	1773	1495	2275	2244	2350	2200	2150	2100	1800
CAPITAL EQ	0	25	22	22	25	25	25	25	25
GP PROJECTS									
LINE ITEMS									
TOTAL	1773	1520	2297	2266	2375	2225	2175	2125	1825

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
1/31/90	>305-B PART B SUBMITTED		M-20-08
12/31/91	>325 WASTE TREATMENT FACILITY (WTF) PART B SUBMITTED		M-20-20
12/31/93	>THERMAL TREATMENT PART B SUBMITTED		M-20-42
12/31/94	>PHYSICAL CHEMICAL PART B SUBMITTED		M-20-43
12/31/95	>BIOLOGICAL TREATMENT PART B SUBMITTED		M-20-44

== NARRATIVE ==

ACTIVITY DESCRIPTION:
PNL management and oversight of compliance related activities associated with hazardous, radioactive and mixed waste in support of defense and multiprogram laboratory (MPL) waste operations, waste minimization efforts and continuity of operations. This activity includes compliance and waste management for all 300 area PNL facilities as well as several 600 area, 100 area and 200 area facilities. Approximately 150 buildings are covered.

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Supports waste minimization efforts, training, spill control, continuity of operations, and permitting and closure costs for Part B RCRA permits covered by Tri-Party Agreement, including 1234 yard closure, 305-B, 325 Treatment, Thermal Treatment, Physical/Chemical and Biological Waste Treatment Part B Permits (per TPA).

This sheet includes previous ADS #8003 (old #RL-0139).

The FY91 funding cut of 12% ($295K) will delay sampling and closure of the 1234 Yard Treatment Facility unless additional funds are identified elsewhere. This funding cut will also impact the preparation of the 325 Waste Treatment and Hazardous Waste Treatment Facilities Part B permits. These will be delayed unless alternate sources of funds are identified. Proportional cuts will be made in waste minimization, spill control, and training efforts.

FUNDING BASIS:
Based on current working projections consistent with the previous budget submissions. Waste disposal costs based on historical and current data. Increase in costs due to larger volume of permitting and closure plans, in conjunction with increasing required compliance activities.

Projected costs for hazardous waste disposal based on volume of 400-500 containers annually at costs up to $1000 per container, (400-500K annually). Capital equipment costs include hazardous material class H storage module (self-contained) at $25K each, neutralization tankage and controllers at $25K, miscellaneous portable instrumentation and analytical equipment for health and safety monitoring $8-10K each.

Costs for permits based on previous costs for preparing draft storage permit and escalated due to high complex nature of new category of treatment technology permits. Permit preparation costs range from 200-400K each and are phased per TPA milestone schedule. Balance of costs are labor costs (18 FTEs) and facility supplies. Principal cost increase from FY90 to FY91 is due to closure costs for 1234 yard and initiation of 325 Part B.

Impact of not receiving funds in FY 1991 would result in being out of compliance with RCRA waste disposal regulations. It would also terminate activities needed to meet Tri-Party Agreement milestones. Requirements for compliance are mandatory.

PRIORITY RATIONALE:
Priority 2 due to requirements to meet Tri-Party Agreement milestones and maintain continuity of operations. Activities include permitting,

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 8002-PW-0

closure plans and management and oversight of compliance activities. If hazardous and radioactive waste is not properly managed, environmental damage will result, personnel exposure and/or injury will result, and major economic expenditures would be required to recover. Failure to fully fund this activity could result in noncompliance with numerous environmental and safety requirements and subsequent delay in Tri-Party Agreement milestones.

LEVEL OF CONFIDENCE RATIONALE:
Level of effort activities (i.e., continuity of operations) have medium to high confidence level due to historical costs/trends and established procedures. Permitting and compliance activities have medium to lower confidence due to changing regulations and uncertainty in regulatory review process aspects in dealing with outside agencies, including public review.

ACCOMPLISHMENTS TO DATE:
A draft closure plan for the 1234 Yard treatment facility has been prepared. The draft of the 305-B Part B Permit has been prepared and submitted to the EPA and state.

Level of effort activities include safe management and disposal of approximately 40,000 Kgs of hazardous waste and approximately 20,000 cu. ft. of radioactive waste annually.

ACTIVITY ALTERNATIVES:
Terminating research activities and all non-clerical DOE programs at PNL or leaving waste to accumulate in violation of DOE and EPA regulations. Delay of activity working projections consistent with the previous budget submissions.

9218596

Prepared by: MS HANSON

Approved by: JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8008-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0182
FACILITY: HANFORD SITE
TITLE: MATERIALS CHARACTERIZATION CENTER DEFENSE HLW SUPPORT (PNL)
PRIORITY: 3 NEPA: N/A
B&R CODE: EW-30-10-15 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, FED
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	265	265	0		265	265	265	265	265
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	265	265	0	0	265	265	265	265	265

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>MODIFY DATABASE TO ALLOW USE BY PERF ASSESS MODELERS		
9/30/92	>OBTAIN ASTM APPROVAL FOR MCC-1 RADIONUCLIDE RELEASE COMPLIANCE TEST METHOD		
9/30/93	>PROVIDE INPUT TO HWVP HLW FORM WASTE QUALIF RPT (WQR) TO CANISTER QUALIF		
9/30/94	>PROVIDE INPUT TO HWVP WQR RELATED TO RADIONUCLIDE RELEASE		
9/30/95	>PROVIDE SUPPORT RELATED TO QUALIF OF INEL HLW FORM		
9/30/96	>PROVIDE SUPPORT RELATED TO QUALIF INEL HLW FORM		
9/30/97	>PROVIDE SUPPORT RELATED TO QUALIF OF INEL HLW FORM		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8008-PW-0

ACTIVITY DESCRIPTION:
The DOE has made the decision that the Defense Waste Processing Facility (DWPF) will solidify the high-level waste at the Savannah River Site as borosilicate glass. The Nuclear Waste Policy Act (NWPA) of 1982, and its amendments, require that defense high-level waste be disposed of in a geologic repository. Certain waste form requirements related to geologic disposal are identified in 10-CFR-60. Additional waste form requirements, specific to borosilicate glass waste forms have been proposed by the DOE-RW Waste Acceptance Committee, and adopted by DOE. These requirements are documented in DOE/RW 0125. In order for defense producers to qualify their waste for disposal, they are required to demonstrate that their solidified waste forms comply with these requirements.

One emphasis of the MCC work identified in this ADS is to support defense waste form qualification through generating certain of the data required for such qualification. A second emphasis is to support the waste form qualification efforts of the individual projects by supplying needed reference materials and test methods. A third emphasis is to develop the data (e.g., estimates of precision and bias) required to demonstrate the utility of test methods used by the producers for obtaining waste form qualification data.

The activities identified in this ADS provide waste form qualification support required for startup of the DWPF. The activities identified also support the Hanford Waste Vitrification Project (HWVP) and Idaho National Engineering Laboratory (INEL) high-level waste form design and qualification activities.

IMPACTS OF FY 91 BUDGET REDUCTION
The activities described in this ADS are required for qualification of the Savannah River Defense Plant Waste Processing Facility (DWPF) high-level waste glass for disposal in a geologic repository. If this activity is not supported, qualification of the DWPF waste form, which is a necessary precursor to DWPF startup, will be jeopardized. Qualification of the Hanford Waste Vitrification Plant (HWVP) high-level waste glass will also be put in jeopardy.

FUNDING BASIS:
Costs cited above are realistic based on previous experience with this type of work.

PRIORITY RATIONALE:
FY-1990-91 work must be completed in order to minimize risk to DWPF startup.

This work is part of major waste acceptance effort for DWPF. HQ guidance is to provide support to DWPF up to this specified level.

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ACTIVITY DATA SHEET

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Work in FY-1992 and beyond must be completed in order for Hanford Waste Vitrification Project (HWVP) and Idaho National Engineering Laboratory (INEL) waste form to be qualified for disposal.

LEVEL OF CONFIDENCE RATIONALE:
The rationale for the medium confidence level associated with this work is based on the Materials Characterization Center's substantial previous experience with the types of waste form qualification related work identified in this ADS.

ACCOMPLISHMENTS TO DATE:
A comprehensive data base of glass chemical durability data has been assembled for use by waste form producers and performance assessment modelers.

Chemical analysis reference glasses have been provided to waste form procedures for use in quantifying the uncertainties associated with chemical analyses that support waste form qualification.

Input has been provided to the DOE Working Group for Waste Acceptance.

Analytical QC guidelines have been developed for use by the waste form producers.

ACTIVITY ALTERNATIVES:
Risk delaying DWPF startup or fund another organization to complete the work.

Prepared by: MS HANSON

Approved by: JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8009-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0336
FACILITY: SOLID WASTE
TITLE: RMW STORAGE TANK UPGRADES (PNL)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE *		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	20	450	450	0	450	450			
CAPITAL EQ		50	50	0	25				
GP PROJECTS									
LINE ITEMS									
TOTAL	20	500	500	0	475	450	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/92	>ASSESS EXISTING PRACTICES AND DEFINE AFFECTED TANKS.		
9/30/93	>INITIATE COMPLIANCE SCHEDULE AND REQUIREMENTS		
9/30/93	>COMPLETE UPGRADES ON 50% OF TANKS		
9/30/94	>UPGRADE OF ALL PNL MANAGED RADIOACTIVE MIXED HAZ WASTE & TANKS (SUPPORTS M-10)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Upgrade or replacement of Pacific Northwest Laboratory (PNL) tanks at Hanford to which the RMW storage tank regulations apply. This includes Washington State Dangerous Waste regulations contained in WAC 173-303.

Regulations require tank integrity assessments, secondary containment verification, spill prevention controls, procedures, training,

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contingency plan preparations, inspection programs, etc. All surveillance must be done via remote methods due to high radiation fields surrounding tanks. Waste streams entering tanks must be evaluated/sampled to allow RCRA waste designation.

Total tanks to be subject to regulations is to be determined, estimate 12-20 tanks to be reviewed. Tanks are 10-40 years old and are contained in 324 and 325 Buildings. Connected piping systems are also subject to the regulations and include 329, 327 and 326 facilities.

This activity supports Tri-Party Agreement Milestones 10-00 and 05-00.

IMPACTS OF FY 91 BUDGET REDUCTION:
No funding for this activity in FY91 means that tanks almost certainly found to be out of compliance with regulatory standards will exist in that condition for an additional year with no action.

FUNDING BASIS:
Estimate based on historical and industry costs and trends. No activity was scheduled for FY-90. It is anticipated that negotiations with the state will lead to agreements requiring tank upgrades to start in FY-91.

PRIORITY RATIONALE:
It is believed that these tanks will be found to be out of compliance with state regulations. State requirements (as defined in WAC-173-303, Dangerous Waste Regulations) on storage tanks are legally binding; therefore, priority 3 required, and this must also be considered a "must do" activity in the near future. This activity also supports TPA milestone M-10.

LEVEL OF CONFIDENCE RATIONALE:
Confidence level is low due to uncertainty of how EPA regulations will be applied to radioactive mixed waste tanks where integrity testing and radiation protection standards are potentially in conflict. Costs for setting equivalent compliance could vary dramatically.

ACCOMPLISHMENTS TO DATE:
Preliminary survey of potentially regulated tanks has been made and programmatic needs for future programs being evaluated.

ACTIVITY ALTERNATIVES:
Pending results of compliance assessment, there may be no legal alternative to upgrading except for closure. For tanks that must remain in service, upgrading is necessary. Alternative actions on a tank-by-tank basis are being conducted. These alternatives are subject to programmatic activities currently being evaluated at Hanford.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8009-PW-0

Prepared by: _____
MS HANSON

Approved by: _____
JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8010-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0345
FACILITY: 300 AREA MP FACILITIES
TITLE: BUILDING UTILITIES - PHASE I - FACILITY COMPLIANCE/RENOVATION ONG
PRIORITY: 1 NEPA: FONSI
B&R CODE: 39-EW-30-10-1 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: CAA, RCRA, DOE, CWA, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING									
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	2169	200	200	200	31				
TOTAL	2169	200	200	200	31	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
1/31/90	>CONTINUE CONSTRUCTION ACTIVITIES		
12/31/91	>COMPLETE CONSTRUCTION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
This project focuses on corrective actions of major building systems in several aged, but strategically important multiprogram laboratories in the 300 Area.

The corrective actions include modifications to ventilation and air filtration systems, electrical systems and waste water piping for water pollution control to ensure liquid effluent meet or exceed all regulatory requirements. These modifications are required to comply with DOE Orders 6430.1 and 5400.XY, Washington State Radioactive Airborne Emissions Program, and 40 CFR 61, National Emission Standard for Hazardous Air Pollutants: Regulation of Radionuclides.

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The FY 1991 project activity provides a refrigerated air conditioning system to replace the present evaporative cooling system in the 320 Building. This replacement reduces the flow to the 300 Area process sewer helping to achieve an overall reduction of effluent discharges which can then be accommodated by a new waste treatment system planned for installation in FY 1991. The equipment replacement supports accomplishing Tri-Party Agreement milestone M-17-06 to cease all discharges to the 300 Area Process Trenches by December 1991. Similar reductions in effluent discharges are required in other facilities and the modification projects have been included in other ADSs (e.g. 7014).

FUNDING BASIS:
Project is ongoing, and the FY 1990 funding authorization is from the Multiprogram Energy Laboratories - Facilities Support Program (B&R No. KG-73-01-0). FY 1991 funding is included in the Environmental Management budget (B&R No. EW-30-10-01). Cost estimates are based on detail or conceptual design and construction bids. Project validated by DOE.

PRIORITY RATIONALE:
Ongoing activity which, if terminated, would result in significant economic impact and could result in significant environmental impact. Would also affect accomplishment of Tri-Party Agreement milestone M-17-06.

LEVEL OF CONFIDENCE RATIONALE:
High. Detailed design is 90% complete. Construction is underway.

ACCOMPLISHMENTS TO DATE:
Detailed design is underway or has been completed on various sub-project elements. Construction is underway; project is on schedule.

ACTIVITY ALTERNATIVES:
No suitable alternatives exist. Project is underway. Work stoppage and facility replacement is too costly. Facility closure is unacceptable because of current and future programmatic support needs.
Supports accomplishment of Tri-Party Agreement milestone M-17-06.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
LINE ITEMS					
	89-R-111	BUILDING UTILITIES - PHASE I	3000		91989

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8010-PW-0

Prepared by: _____
MS HANSON

Approved by: _____
JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8011-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0346
FACILITY: 300 AREA MP FAC (329 BUILDING)
TITLE: 329 BUILDING COMPLIANCE (PNL)
PRIORITY: 1 NEPA: FONSI
B&R CODE: 39-EW-30-10-1 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: CAA, RCRA, CWA, ORD, ST
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING									
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS		1800	1800	1800	3200	2300			
TOTAL	0	1800	1800	1800	3200	2300	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
1/31/91	>INITIATE DETAIL DESIGN		
10/31/91	>COMPLETE DESIGN, PREPARE BID PACKAGES, BEGIN DEMOLITION		
1/31/92	>AWARD CONSTRUCTION CONTRACT & INITIATE CONSTRUCTION		
12/31/93	>COMPLETE PROJECT		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
This project is included in the President's FY 1991 budget to renovate major building systems in an aged but strategically important laboratory to improve ventilation, air filtration and waste water piping to control radionuclides and ensure safe liquid effluents. These renovations are necessary to comply with the Clean Air Act, Clean Water Act, RCRA, and other requirements.

This project includes the following modifications to the 329 Building:

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Upgrade of the fire protection system to meet NFPA 13; replacement of a portion of the building electrical system to meet NFPA 70, National Electrical Code; upgrade HVAC system to meet the requirements of 40 CFR 61, National Emission Standard for Hazardous Air Pollutants and to comply with the Best Available Radionuclide Control Technology (BARCT) Requirement, the State of Washington Administrative Code (WAC) Chapter 402-80, Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides; establish laboratory and corridor fire separation to comply with NFPA 101, which is a mandatory requirement of DOE 6430.1; provide access for the physically handicapped to comply with 41 CFR 101.19.6, Uniform Federal Accessibility standard; modify laboratories to relieve crowding and reduce safety risks; replacement of corroded service piping; replacement of deteriorated waste piping systems to comply with DOE 5400.1, General Environmental Protection Program requirement, and 40 CFR 116, Federal Water Pollution Control Act, which requires that hazardous materials cannot be released in a liquid effluent. Extensive piping corrosion holds the potential for containing radioactive material constituents.

The purpose of this project is to ensure continuity of operations in a vital laboratory facility supporting DOE missions in environmental restoration.

Significant analytical chemistry associated with Tri-Party Agreement milestone M-10 and the environmental restoration program related RCRA and CERCLA analysis is performed in the facility. The existing laboratory space is in desperate need of upgrading to meet current laboratory standards and to provide adequate laboratory space for these vital programs. The laboratories in the 329 Building are those which house part of the Chemical Measurement section which is the only Hanford Laboratory staff qualified to meet EPA Contract Laboratory Program (CLP) environmental measurements, which is an important part of the TPA. As well, the 329 Building houses critical chemical laboratories and staff associated with method development research for DOE's waste management effort.

FUNDING BASIS:
Cost estimates are based on completed conceptual design. Project estimate has been validated by DOE. This project was originally included in the Office of Energy Research Multiprogram Energy Laboratories - Facilities Support Program Plan; it is currently in the FY 1991 Environmental Management budget (B&R No. EW-30-10-01) to accomplish the waste management activities described above.

PRIORITY RATIONALE:
Project is required to comply with 40 CFR 61, 40 CFR 116, 41 CFR 101.19.6, WAC 402-80, NFPA, DOE Order 5400.1, and DOE Order 6430.1, to assure safety of staff and to avoid environmental releases. Due to

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importance of programmatic activities conducted in the facility, a significant economic impact would result if facility systems fail or require building shutdown. Project supports accomplishment of Tri-Party Agreement Milestone M-10-00.

LEVEL OF CONFIDENCE RATIONALE:
High. Conceptual design has been completed by Kaiser Engineers. Project validated by DOE.

ACCOMPLISHMENTS TO DATE:
Conceptual design completed. Project validated.

ACTIVITY ALTERNATIVES:
No suitable alternatives to renovation exist. Facility replacement is too costly, and closure is unacceptable because of critical importance of programmatic activities conducted in facility, including accomplishment of Tri-Party Agreement milestone M-10-00. Continuing to use the facility as is has a significant risk to release contaminants into the environment.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	91-E-332	329 BUILDING COMPLIANCE	7300	91990

Prepared by: MS HANSON

Approved by: JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8014-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: WASTE MINIMIZATION/OPERATIONS
TITLE: LLW SORTING/SCANNING TABLE (PNL)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-05 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

			BUDGET AUTHORITY ($000's)		FUNDING ISSUE *				
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING			0		525	200	200	200	200
CAPITAL EQ			0		420				
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	945	200	200	200	200

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/92	>COMPLETE FUNCTIONAL DESIGN REVIEW AND INITIATE PROCUREMENTS.		
9/30/93	>COMPLETE INSTALLATION AND OPERATIONAL SHAKEDOWN.		
9/30/94	>LEVEL OF EFFORT OPERATIONS - (SYSTEM OPERATING COSTS)		
9/30/95	>LEVEL OF EFFORT OPERATIONS - (SYSTEM OPERATING COSTS)		
9/30/96	>LEVEL OF EFFORT OPERATIONS - (SYSTEM OPERATING COSTS)		
9/30/97	>LEVEL OF EFFORT OPERATIONS - (SYSTEM OPERATING COSTS)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Radionuclide scanning equipment will be procured and fabricated into an assembly to sort non-radioactive materials from radioactively

FY 92 ADS ID: 8014-PW-0

contaminated items. This sorting/scanning equipment will minimize the amount of Low Level Waste currently being buried at costs near $60/cu.ft. A significant portion of the waste generated in radiation areas at PNL is not radioactive. It has been acceptable from a compliance and cost benefit viewpoint to treat potentially radioactive material as radioactive for disposal.

A policy incorporating the use of "potentially radioactive" containers in addition to "definitely radioactive" waste containers in radiation areas may reduce costs.

Waste streams segregated into two categories of waste would be generated. The "definitely radioactive" waste would be handled as LLW, for the rest, an effective nonradioactive waste verification system must be in place.

Activity needed to meet compliance with DOE Order 5820.2A Waste Reduction Criteria.

The facility housing this equipment has not been decided but would likely be the 324 or 325 buildings which generate most of the LLW.

Impacts of not receiving FY91 funding are same as activity alternatives described below. Continuing practices to be used until equipment is available.

FUNDING BASIS:
Pre-conceptual design plus operating costs. To be considered for FY 1991 start at $300k.

Capital equipment consists of Sodium Iodide Crystal Array Counting System (or equivalent), associated instrumentation, conveyor system and scanning table. (Cost includes installation.)

PRIORITY RATIONALE:
Priority level set to meet compliance with DOE Order 5820.2A; therefore, level 3.

LEVEL OF CONFIDENCE RATIONALE:
Project in early planning state; therefore, low confidence level in costs.

ACCOMPLISHMENTS TO DATE:
New activity.

ACTIVITY ALTERNATIVES:
Continue existing practice which is not desirable from a waste

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Continue existing practice which is not desirable from a waste minimization stand point or a cost effectiveness aspect as LLW disposal fees have escalated dramatically in the past 3 years (500%).

Prepared by: DKK
MS HANSON

Approved by:
JJ/SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8015-PW-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: 305-B FACILITY
TITLE: WASTE TREATMENT MELTER (PNL)
PRIORITY: 3
B&R CODE: EW-30-10-05
A-106: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: SUTEY, JJ

LAST UPDATE: 4/26/90
FY 91 ADS ID: NEW
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE *				
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING			0		250	250	250	250	250
CAPITAL EQ			0						
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	250	250	250	250	250

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/92	>COMPLETE MELTER INSTALLATION & RD&D TESTING		
9/30/93	>OPERATE AS ROUTINE WASTE TREATMENT/WASTE MINIMIZATION		
9/30/94	>AMEND PART B PERMIT		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Includes the installation and routine operations of a small scale joule heated ceramic melter to vitrify and render non-hazardous RCRA regulated chemical waste generated from Defense Waste R&D programs. This new project will be used to treat applicable hazardous waste, eliminating disposal at a regulated land fill. The activity will take place at the 305-B facility operated by PNL.

This will be a waste minimization effort as well as a pilot plant/bench scale RD&D apparatus. It will operate initially under a

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treatability exemption and then be fully permitted under RCRA.

Impacts of not receiving FY91 funding are same as activity alternatives described below. Continuing practices to be used until equipment is available.

FUNDING BASIS:
FY91 operating funding of $400K based on engineering and design drafting costs of $150K (approx. 1.5 FTE), facility renovation costs of $150K and procedures, permitting and data base development costs of $100K.

Capital equipment includes melter, transformers, power supplies, instrumentation, feed system and scrub system costs of $300K. Outyear costs include operating staff (2 FTEs) plus materials, supplies, and maintenance.

Cost estimate based on related melters designed, fabricated, and operated at PNL. PNL has many years of directly related experience and practical application.

Capital equipment funding is required for procurement of transformers, power supplies, instrumentation, and off gas clean-up equipment.

PRIORITY RATIONALE:
Assigned priority 3 to meet DOE directives for proper management of waste, including waste minimization activities.

LEVEL OF CONFIDENCE RATIONALE:
Confidence level for cost and schedule is medium based on prior experience building and operating nine ceramic melters. PNL staff are world experts in this technology. Uncertainties in permitting requirements reduce confidence from high to medium.

ACCOMPLISHMENTS TO DATE:
PNL has designed, built, and operated nine ceramic melters in previous projects. PNL has operated treatability tests on related projects and is familiar with the regulatory requirements. No specific facility accomplishments have been made as this is a new proposal.

ACTIVITY ALTERNATIVES:
Alternatives are to continue to send waste offsite for treatment or disposal. This significantly increases DOE's liability in the out years should land disposal sites have problems or treatment facility costs increase or capacity becomes a problem.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 8015-PW-0

Prepared by: _____
MS HANSON

Approved by: _____
JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8017-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0137
FACILITY: 300 AREA TREATMENT FACILITY
TITLE: HAZARDOUS WASTE TREATMENT FACILITY (PNL)
PRIORITY: 1 NEPA: EA
B&R CODE: EW-30-10-05 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING			200	200	200	600	600	600	600
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS		970	970	970	3030				
TOTAL	0	970	1170	1170	3230	600	600	600	600

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/90	>COMPLETE ENVIRONMENTAL ASSESSMENT		
1/31/91	>START DEFINITIVE DESIGN		
12/31/91	>COMPLETE DEFINITIVE DESIGN		
1/31/92	>FILE PART B PERMIT WITH ECOLOGY		
2/29/92	>START CONSTRUCTION		
3/31/93	>COMPLETE CONSTRUCTION		
4/30/93	>START OPERATION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
This project is included in the President's FY 1991 budget to provide a new facility in which regulated nonradioactive small quantity, diverse chemical wastes generated by PNL's multiprogram activities will be detoxified, solidified, and/or converted to a less hazardous form which can, in turn, be packaged and shipped as a nonhazardous waste for disposal in a cost effective, compliant manner.

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PNL generates about 20,000 Kg/yr of 200 types of wastes which require treatment. This facility will satisfy the EPA's final rule on "Land Restrictions for First Third Scheduled Wastes" promulgated August 8, 1988, Federal Register, Volume 53, No. 159, pp. 31138-31120. The land ban rule in combination with land ban rules previously promulgated require permitted hazardous waste generators to certify that hazardous wastes are not disposed of untreated to ground or applied to land in any manner.

The site does not have an existing or planned facility (other than this project) for treating small quantity, diverse laboratory hazardous chemical waste. Currently, site contractors ship nonradioactive chemical wastes offsite for treatment and/or disposal by land burial. With land ban regulations, these wastes will need additional treatment, resulting in a significant disposal/treatment cost increase. The proposed Hazardous Waste Treatment Facility (HWTF) would eliminate the need for offsite treatment and disposal of small stream laboratory chemical wastes by destruction on site using modern technologies. The technologies planned for use in the facility include neutralization, grout, thermal treatment, distillation, and oxidation.

The HWTF compliments the planned WRAP Facility at Hanford, which will treat large volume process waste. The HWTF will treat only nonradioactive small quantity, diverse waste produced by laboratory research operations. Many of these wastes are difficult to treat and require specialized handling.

FUNDING BASIS:
Capital costs are based on a conceptual design report. Project validated by DOE and approved as a FY1991 line item. Operating costs beginning in FY 1993 are based on a technical and management staff of six needed to operate the facility. Operating costs prior to facility start-up are to cover environmental documentation and permitting activities.

PRIORITY RATIONALE:
Project is required to treat non-radioactive hazardous chemical wastes from ongoing laboratory operations to assure compliance with EPA final rule on "Land Disposal Restrictions for First Third Scheduled Wastes." The impact of not constructing the facility includes a significantly increased risk to the environment and significantly increased costs, without reducing long-term DOE liabilities.

LEVEL OF CONFIDENCE RATIONALE:
High. Conceptual design has been completed by Kaiser Engineers. Project validated by DOE.

ACCOMPLISHMENTS TO DATE:
Preliminary environmental documentation is in progress. Conceptual

FY 92 ADS ID: 8017-PW-0

design complete.

ACTIVITY ALTERNATIVES:
If the facility is not completed, DOE liabilities for the hazardous waste continue indefinitely. Costs to dispose of land ban hazardous waste will increase significantly, and compliance with EPA final rule cannot be assured. These consequences are unacceptable. WRAP will not satisfy the needs met by this facility.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	91-E-306	HAZARDOUS WASTE TREATMENT FACILITY	4000	91991

Prepared by: DKK MS HANSON

Approved by: JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8164-PW-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: 231-Z BUILDING
TITLE: TRU WASTE STORAGE
PRIORITY: 3
B&R CODE: EW-30-10-30
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: SUTEY, JJ

LAST UPDATE: 4/26/90
FY 91 ADS ID: NEW

NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N

HEC SUBPROJECT (Y/N): N
PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING			0		850				
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	850	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/92	>DISPOSAL REQUEST APPROVED		
9/30/92	>MATERIAL TRANSFERRED TO WHC		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The funding required for FY91 was $750K. The increased funding required for FY92 is based on the anticipated increase in waste management costs.

TRU packaged in eight TMB-V boxes (339 sq. ft. each) and seven 17-C drums (7.35 sq. ft. each) are stored at 231Z facility. Funds for transfer to WHC for TRU storage until disposal are required. This transfer is required for long range planning of waste storage as required by DOE Order 5820.2A.

Monitoring and surveillance costs and the fact that the 231 facility

FY 92 ADS ID: 8164-PW-0

is not designed for long-term TRU storage are primary driving forces. There is also a potential for drum deterioration and contamination. Until these drums are moved, a portion of the building can not be used for alternative purposes.

Prior program terminated in 1984. Did not provide clean-up and disposal funding.

FUNDING BASIS:
Based on known volume, CY 1990 TRU rate ($/ft3), and assumed escalation of 10%. Volume = 2763 ft3. CY 1990 TRU rate = $242/ft3, assumed rate= $266/ft3. 2763 ft3 x $266/ft3 = $735K. $15K estimated labor for transfer forms and moving boxes and drums. Failure to fund this activity will result in continued inappropriate use of 231Z, continued surveillance cost and risk that changing regulations may result in a noncompliance situation.

PRIORITY RATIONALE:
TRU waste containers must be stored in an approved storage site, not Building 231Z, which is not an authorized storage building.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence for transfer to WHC is high. Level of confidence in cost is medium due to history of high cost escalation for waste operations.

ACCOMPLISHMENTS TO DATE:
TRU packaged for shipment to WHC TRUSAF or Central Waste Complex for storage until disposal.

ACTIVITY ALTERNATIVES:
The alternative is to continue storing the TRU waste at 231Z and accept continuing surveillance and maintenance costs and risk potential cleanup of contamination due to drum deterioration.

Prepared by: DK MS HANSON

Approved by: JJ SUTEY

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 8174-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: MIXED WASTES
TITLE: CONTINUATION OF DEMONSTRATION TEST BEDS IN 324 & 325 BUILDINGS
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE, ST
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: SUTEY, JJ PHONE: 509-376-7770

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING			0		2525				
CAPITAL EQ					500				
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	3025	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>ESTABLISH PLAN FOR DEMO TEST BEDS IN 324 & 325 BUILDINGS		
9/30/92	>PREPARE CERAMIC MELTER FACILITY IN 324 BLDG TO TREAT HAZARDOUS MIXED WASTE		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
A funding level of $100K for plan development is requested in FY-1990 to initiate this activity with $500K requested for continued planning and design effort.

Hanford's waste technology engineering and chemical laboratories have unique capabilities including nonradioactive laboratories, radioactive laboratories, high-bay engineering test facilities, glove box facilities, metallurgical, analytical and radioactive hot cells. These facilities conceived and developed the current high level waste technology; Liquid Fed Ceramic Melter (LFCM), the ISV technology and

FY 92 ADS ID: 8174-PW-0

CEPOD. These facilities and existing staff are being be deployed to support a number of new and ongoing RDDT&E activities. This activity will integrate existing facilities to provide continued, integrated test bed capabilities for the treatment of hazardous, mixed and high-level waste. In FY 1990 a plan will be prepared which establishes the technical approach, schedule, cost and environmental and safety analysis requirements for the preparation of the needed Demonstration Test Beds. Once the plan is completed, a DOE-HQ' decision can be made on continuation of the planned activity. Once established, the Demonstration Test Beds will be funded by user programs. Reference ADS's which will benefit from the establishment of a Demonstration Test Bed Facility are: 8016 Defense LLW Technology Support, 8027 Advanced HLW Technology Treatment Technology, 8053 Innovative Waste Minimization Technology, 8058 TRU Waste Reclassification, 8072 Joule-Heated Incineration of DOE Wastes, 8078 Integrated Greater-Than-Class-C Low-Level Waste Technology Support, 8108 Size Reduction and Decontamination Methods for Facilities and Equipment, 8119 Vitrification Demonstration of Hanford CERCLA Private Site Soils and 8001 West Valley Program Support at Hanford.

This activity is directed at the integration of existing facilities to provide test bed capabilities for other Activity Data Sheet needs. In FY-1991 a plan will be prepared which will establish the technical approach, schedule, cost and environmental and safety analysis requirements for the preparation of the needed Demonstration Test Beds. Once established, the Demonstration Test Beds will be funded by user programs.

FUNDING BASIS:
Funding is requested in FY-1990 to begin the preparation of a plan for expanding the Demonstration Test Beds within the 324 Building. Outyear funding requests will be established based upon needs established in the Implementation Plan. The FY 91 funds of $500K will provide continuing planning efforts, test plans, design, and equipment requirements. The FY 92 request will initiate efforts on approved test bed capabilities.

PRIORITY RATIONALE:
The capabilities in the 324 and 325 Building represent a unique asset that will be required for RDDT&E initiatives. Improving existing trained staff, equipment, and facilities will significantly reduce costs and worker exposures.

LEVEL OF CONFIDENCE RATIONALE:
The budget confidence level for preparing the Test Bed Plan is medium. Future funding requirements will be established in the Demonstration Test Bed Plan. A nominal funding level of $500K is requested in FY-1991 to initiate approved Test Bed activities.

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FY 92 ADS ID: 8174-PW-0

ACCOMPLISHMENTS TO DATE:
None.

ACTIVITY ALTERNATIVES:
Support technology development activities and facility requirements on a case-by-case basis or construct new facilities. Lack of an integrated support effort will result in additional cost and schedule delay in the completion of the necessary RDDT&E Activities. This will lead to duplication of capabilities with increased costs and worker exposures.

Prepared by: DKK
MS HANSON

Approved by:
JJ SUTEY

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 8180-PW-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: HANFORD
TITLE: HANFORD PERSONNEL DOSIMETRY UPGRADE
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: HOLTEN, RA PHONE: 509-376-7461

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING					1386	200	0	0	0
CAPITAL EQ					400	0	0	0	0
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	1786	200	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
11/30/91	>SUBMIT PROCUREMENT SPECIFICATIONS FOR COMMERCIAL DOSIMETRY SYSTEM		
2/29/92	>COMPLETE TECHNICAL EVALUATION OF BIDS		
5/31/92	>INITIATE ACCEPTANCE TESTING OF COMMERCIAL DOSIMETRY SYSTEM		
10/31/92	>COMPLETE DOELAP PERFORMANCE TESTING OF NEW SYSTEM		
1/31/93	>IMPLEMENT NEW DOSIMETRY SYSTEM		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The existing Hanford dosimetry system cannot meet DOE Laboratory Accreditation Program (DOELAP) accreditation standards for beta radiation. Failure to achieve and maintain DOELAP accreditation will result in questioning the minimal adequacy of the existing and historical Hanford radiation protection program. This will result in several adverse effects depending upon the intensity of worker,

regulatory or public reaction. These include management and union concern for worker safety, concern for validity of worker lifetime dose records, concern for validity of Hanford epidemiological assessments and potentially public visibility of using a non-accredited (i.e., implies sub-standard) dosimetry system to monitor personnel radiation exposure for compliance with established safety standards. At the very least, Hanford will need to develop a remedial action plan (i.e., procure commercial dosimetry system as proposed herein) to bring Hanford Operations into compliance with existing regulations. Procurement of a commercial system similar to the systems procured by all other major DOE laboratories (e.g., ORNL, SRP, RFP, INEL, ANL, LLNL, WIPP, etc.) in recent years will ensure that Hanford complies with all personnel dosimetry accreditation requirements and will satisfy existing safety concerns noted in FFTF and PFP technical safety appraisals.

The Hanford dosimetry system is used to measure, project and control radiation doses received by personnel and visitors. Doses measured with personnel dosimeters comprise the official, legal record of personnel exposure to radiation. DOELAP accreditation ensures that the accuracy, documentation and quality of the dosimetry system complies with a formal standard of minimum performance. Procurement of a commercial dosimetry system is necessary to provide a system for Hanford which is capable of meeting this minimum level of performance and to satisfy several existing radiation safety concerns. This procurement would provide a single beta/photon dosimeter for use by all Hanford personnel and visitors to measure exposure to beta and photon radiation, with supplemental dosimetry for personnel exposed to neutron radiation as necessary. Procurement of a commercial dosimetry system is needed to implement capabilities at Hanford similar to systems procured by other DOE laboratories. The procurement will provide cost effective resolution to current radiation safety concerns regarding the adequacy of existing personnel dosimetry system. Upgrading the existing dosimetry system is not feasible because the dosimeter will not meet DOELAP performance criteria for beta radiation.

FUNDING BASIS:
Cost estimates are based on management estimates and experience with Hanford personnel dosimeter processing system costs, dosimeters and related materials as well as the experience of other DOE laboratories in procuring new dosimetry systems in recent years.

PRIORITY RATIONALE:
The Hanford dosimetry system provides the official, legal dose of record used to demonstrate compliance of Hanford operations with applicable regulations and for use in litigation. Beginning in 1987, dosimetry systems used to record personnel exposure to radiation must be accredited. Accreditation is synonymous with assurance of program

quality to workers, regulators and lawyers. Regulations adopted by DOE (ref: DOE Orders 5480.11 and 5480.15) parallel similar requirements of the Nuclear Regulatory Commission for licensees. These regulations require accredited dosimetry systems be used to control personnel exposure against radiation protection limits and, therefore, to ensure the safety of personnel.

The existing Hanford dosimetry system was developed in the latter 1960s and has become obsolete. The original dosimetry system consisted of a "all-purpose" five-chip multipurpose dosimeter for beta, photon and neutron radiation as well as an "administrative" one-chip basic dosimeter. In addition, the security credential was physically attached to the multipurpose dosimeter holder. Serious shortcomings of this system are becoming increasingly visible. The most serious is the inability of the system to pass DOELAP performance criteria for lower energy beta radiation. The system has passed DOELAP performance criteria for higher energy beta radiation with the use of a second beta/photon dosimeter. However, the existing system cannot meet DOELAP requirements for lower energy beta radiation because of its "thick chip" design. Currently available commercial dosimetry systems use a "thin chip" design with superior performance characteristics.

It is critically important that procurement of a commercial dosimetry system be done at the earliest opportunity. This procurement will provide several benefits to Hanford as follows:

Compliance of Hanford with all DOELAP dosimeter performance testing criteria. DOELAP performance testing is required every two years.

Assignment to all Hanford personnel of a single fully accredited beta/photon dosimeter in compliance with all applicable regulations. This action will also fully satisfy the concern noted in the FFTF Technical Safety Appraisal regarding the potential for unmonitored beta radiation exposure of personnel.

Assignment of personnel neutron dosimeters only to Hanford personnel with the potential for routine neutron exposure. This will result in providing the best available monitoring for this critical group of personnel and will be fully responsive to the concern noted in the Plutonium Finishing Plant Technical Safety Appraisal regarding adequacy of neutron dosimetry.

Ready implementation at Hanford of new DOE security credential using method used at other DOE laboratories in which the security credential is physically separate but attached to the dosimeter. This assures that the dosimeter is being worn while precluding unnecessary changes if one of the components is

changed. This assurance is critically important in the event of litigation involving personnel radiation exposure.

Most importantly, the proposed procurement will provide Hanford with a dosimetry system which meets all current safety, technical, regulatory, security and political demands.

Procurement of a commercial dosimetry system has the formal support of the Hanford Personnel Dosimetry Advisory Committee which consists of representatives from all Hanford Contractors. The procurement is cost effective considering that additional program costs to procure additional Hanford beta/photon dosimeters and to implement the new DOE security credential, nearly equivalent to the cost of the new system, can be avoided.

CONFIDENCE RATIONALE:
Level of confidence in the represented costs and schedule is medium because of current Hanford experience with the site-wide dosimeter system as well as the experience of other DOE Laboratories (i.e., ORNL, SRP, RFP, INEL, ANL, LLNL, WIPP, etc.) in procuring new dosimetry systems in recent years.

ACCOMPLISHMENTS TO DATE:
This effort is scheduled for funding during FY 1992. Accomplishments to date include technical review of dosimetry systems at other laboratories, review of performance of commercial dosimetry systems in the DOELAP performance testing required by DOE Order 5480.15 and solicitation of technical performance specifications for commercial dosimetry systems.

ACTIVITY ALTERNATIVES:
Procurement of a commercial dosimetry system is the only feasible alternative to obtain a dosimetry system which meets DOELAP performance criteria, provides cost-effective implementation of a single site-wide beta/photon dosimeter for all personnel and provides use of best available technology for personnel neutron dosimetry. If funding is not provided to procure a commercial dosimetry system, Hanford has no choice but to continue to maintain the existing obsolete system at substantial cost. Funds ($500K) must be spent to implement the Hanford beta/photon dosimeter to monitor personnel exposure to beta radiation in spite of its inability to meet all DOELAP beta radiation criteria. Funds ($500K) must be spent to replace the obsolete basic dosimeter system. Funds ($50K to $850K depending upon alternative chosen) must be spent to modify multipurpose dosimeter holders to implement the new DOE security credential. It is anticipated that this second alternative will involve the expenditure of significant funds to maintain the existing system until the system fails DOELAP performance criteria. At that time, a remedial action plan must be developed which

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FY 92 ADS ID: 8180-PW-0

will identify a schedule to procure a commercial dosimetry system similar to systems procured by all other major DOE laboratories. For either alternative, procurement of a commercial dosimetry system will be necessary. However, the second alternative will cause ineffective expenditure of substantial funds to maintain an obsolete system and will result in serious questions of existing and historical program integrity by staff, regulators, unions, etc., because minimal standards of program performance have not be met.

Prepared by: MS HANSON

Approved by: RA HOLTEN

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9010-HX-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: PROGRAM SUPPORT
TITLE: PROJECTS TECHNICAL SUPPORT OFFICE
PRIORITY: 1
B&R CODE: EW-30-10-55
A-106: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0010
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		2321	4221	2321	4432	4653	4886	5350	5900
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	2321	4221	2321	4432	4653	4886	5350	5900

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
4/30/90	>Transmit QA Program Description revisions to DOE-RW.		
6/30/90	>Submit DWPF's waste qualification report (WQR) on process control to DOE-RW.		
10/31/90	>Complete QA program preparation for acceptance survey to DOE-RW.		
10/31/90	>Submit West Valley Demonstration Project's (WVDP) WQR package on process control to DOE-RW.		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
FY1990 appropriation of 2300k has been added subsequent to the initial congressional budget of zero.

The above milestones and the following narrative are based on receiving

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FY 92 ADS ID: 9010-HX-0

FY 1991 Bush Budget Guidance.

The Projects Technical Support Office (PTSO) coordinates and integrates the technical support activities required to end interim storage and achieve the safe and permanent disposal of HLW in accordance with the Defense Waste Management Plan (DWMP). The PTSO is responsible for providing programmatic and technical assistance to DOE-HQ's Waste Management Projects Division (EM-34) in conjunction with program managers at the Operations Office who provide coordination of the site-specific waste management projects. Any deferment of this activity has a direct impact on the startup of DWPF and WVDP and the design and construction of HWVP, as well as other major systems acquisitions and major projects in waste management.

The program focuses on the DWPF and WVDP waste qualification effort with associated QA activities; implementation of the record of decision on the Hanford Defense Waste Environmental Impact Statement; and development of a strategy and technology for waste immobilization at the INEL. Key program efforts include:

- Development of a QA program for waste acceptance at the repository that discharges the responsibility of DOE-HQ, the field offices and their contractors and is based on NQA-1 and RW-0214, Revision 2.

- Independent reviews for DOE-HQ of the waste acceptance documentation generated by the various HLW projects (DWPF, HWVP, etc.) prior to submittal to the NRC.

- New workscope, authorized by DOE-HQ/EM-343 in FY 1990, includes 1.9 million of additional funding required to perform this workscope in FY 1991. Funding requirements for FY 1992 through FY 1996 reflect this as an ongoing activity. This new workscope is independent reviews for DOE-HQ of project-related activities such as quality assurance (QA) programs, safety analysis reports (SARs) and operational readiness reviews (ORRs).

- Special studies and long-range planning for HLW technical support activities.

FUNDING BASIS:
The funding profile for this activity is based on past funding requirements and actual costs for operating the Defense High-Level Waste Technology Program Office in direct support of cold run and hot startup activities at both DWPF and WVDP, design and construction support to HWVP, and projected costs for new initiatives such as independent reviews of QA programs, SARs, and ORRs.

PRIORITY RATIONALE:

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The Priority 1 is justified because the Projects Technology Support Office (PTSO) directly supports cold run and hot startup activities at both DWPF and WVDP, as well as design and construction of HWVP. Without the independent assessments of key activities which are being initiated, coordinated and chaired by the PTSO, DOE-HQ would not be assured that these facilities are ready to operate. These support activities are on the critical path for the start-up of ongoing projects and are therefore considered to be Priority 1.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence "M" is justified because the role of the Projects Technical Support Office is being expanded by DOE-HQ to more broadly address technical issues other than those associated with waste form acceptance at the HLW repository. However, the approach being used for these new activities is quite similar to that currently being used in support of waste form acceptance i.e. independent Technical Review Groups.

ACCOMPLISHMENTS TO DATE:
- o Completed independent reviews of WQR-1 and -2 for DWPF.
- o Completed HLW-QAPD's for DOE-HQ, DOE-SR and the contractor.
- o Completed implementation procedures for DOE-HQ's HLW-QA program.
- o Completed initial review of Waste Form and Canister Description for HWVP.

ACTIVITY ALTERNATIVES:
The roles and functions of the PTSO could be performed as part of the DOE-HQ support contract. However, that organization does not have the in-depth technical expertise required to adequately address many of the issues, and it is generally responding to the short-term requests and needs of DOE-HQ staff.

Prepared by: DD WODRICH

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9050-MH-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: HANFORD SITE
TITLE: ENVIRONMENTAL PLANNING & REPORTING (MH)
PRIORITY: 1
B&R CODE: EW-30-10-01
A-106: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE, CWA, NEPA
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: IZATT, RD

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0200,176,175
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-5441

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		5324	6600	4909	7500	7500	7500	7500	7500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	5324	6600	4909	7500	7500	7500	7500	7500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/91	>Submit annual 5-Yr plan ADS's to DOE-HQ		
3/01/91	>Submit annual Dangerous Waste report to State of WA		
3/01/91	>Submit annual SARA Title III section 312 report		
5/31/91	>Prepare OMB Circular A-106 Pollution Abatement report update		
7/01/91	>Submit annual SARA Title III section 313 report		
7/31/91	>RL annual 5-Yr Waste Mgt & Env Restoration plan		
9/30/91	>Achieve compliance with interim status requirements		M-23-00
11/30/91	>Prepare OMB Circular A-106 Pollution Abatement report		
3/01/92	>Issue EPA Waste Minimization report (even years)		

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FY 92 ADS ID: 9050-MH-0

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The Milestones shown for 1991 are repeated every year from 1992-1996.

This program covers:

- evaluating operations to determine environmental compliance status to all environmental regulations (RCRA, CERCLA, TSCA, CAA, CWA, and State and local regulations);
- developing and maintaining compliance plans to reflect new regulations, facility changes and improvements;
- coordinating reporting activities covering hazardous chemical used and stored on site (SARA Title III reports);
- coordinating and reporting annual hazardous waste disposal activities (State Dangerous Waste and TSD Report);
- Maintaining Hazardous Material inventory database on a weekly basis;
- NEPA strategy development and development of NEPA baseline documentation;
- developing and performing site-wide hazardous waste training and waste minimization programs. This activity reports waste minimization activities/progress which will be referenced in Tri-Party Agreement reports generated under TPA milestone M-04 & M-25;
- conducting long term planning including the "5-Year Waste Management and Environmental Restoration Site Specific Plan", 5400.1 required plans, and regulatory review;
- maintain Waste Information Database, (major new data updates are funded by separately); and
- $150K per year to State of Washington for air permitting fees.

The hazardous chemicals records, which are maintained in a computerized database, are used by emergency response personnel (firefighters, etc.) to determine what hazardous chemicals are in buildings they enter and for orienting workers to chemical hazards in their work places.

Large fines and possible criminal penalties can be applied if regulatory reporting is not done on schedule or in quality manner (up to $25,000 per day fines). Documents require formal certification and an adequate maintenance of records.

See ADS 9051, Defense Waste Operations; ADS 9052, Chemical Processing; ADS 9053, Defense Reactor Division; and ADS 9054, Advanced Reactor Division for remaining FY 1990 funding. Starting in FY 1991, this program is requested to be direct-funded rather than assessed. This activity was assessed to the various programs at Hanford in the past. This worked well when there was a significant variety of funding to distribute these site-wide expenses. However, with the changing mission

FY 92 ADS ID: 9050-MH-0

at Hanford, essentially all the work being done under this activity will be funded by the EM program. Nuclear Energy (NE) and Energy Research (ER) activities which remain at the Hanford Site will obtain essentially no benefit from this program by 1991. With the Defense Programs (DP) "Treatment, Storage and Disposal" activities covered under EM and with PUREX and UO3 transferring to EM, DP will also not be noticeably benefitting. Given the generic, site-wide waste management/environmental nature of this work, it best fits as a Continuity of Operations activity.

At the FY 1991B funding level, there will be less tracking of developing State and Federal regulations, and less waste minimization generic activities and no work on the site NEPA baseline documentation. All external regulatory reporting and 5 Year Planning activities will be met.

FUNDING BASIS:
Three years actual costs in planning and regulatory reporting on a report by report basis. Each activity is prioritized and costed. Detailed assessment methodology and backup cost information is published (WHC-SP-0518). Schedules are specified by environmental regulations.

The increase between '91T and '91R is partially due to how this activity was accounted for in last year's ADS's. The activity was assessed to other programs on site. Most programs showed this assessment broken out on separate ADS sheets (see FY1991 ADS RL-0176, 0175 and 0200). However, the Environmental Restoration, HWVP and PNL assessments were distributed across a number of activities and were not identified on separate ADS's. This accounts for a large portion of the difference. The remaining difference is the cost related to preparing a site-wide NEPA baseline document and updating the Part A Permits.

The increase between '91R and '92 is primarily due to increased waste minimization generic site-wide activities and an estimated across the board increase in reporting requirements.

PRIORITY RATIONALE:
Maintenance of Hazardous Material Inventory data is essential to assure safety to routine workers and emergency response teams because it alerts them to chemical hazards they may encounter. Maintenance of waste inventory records is essential in adequately determining potential health and environmental impacts, both onsite and offsite.

Planning and reporting are critical program functions which enable allocation and prioritization of resources. Planning and reporting are significant activities for precluding and identifying potential impacts to health and environment. This work is required by State laws and EPA. Failure to conduct this activity would also result in significant program impact due to potential large fines and criminal penalties, disrupt

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other agreements and programs, and reduce the ability to identify and respond to potential changes which may result in health and environmental impacts.

LEVEL OF CONFIDENCE RATIONALE:
Medium, based on three years of doing these activities. Reporting requirements keep changing some, preventing a higher confidence level.

ACCOMPLISHMENTS TO DATE:
- Environmental Restoration and Waste Management and 5-Year Plan input to HQ and site specific plan prepared in Summer, 1989.
- Hanford Site Waste Minimization/Pollution Awareness Plan (5400.1) in final review
- Tier Two Hazardous Chemical Inventory Report (SARA, Title III, Section 312) issued on time
- Toxic Chemical Release Report (SARA, Title III, Section 313) issued on time
- Generator Annual Dangerous Waste and TSD Report issued on time
- Polychlorinated Biphenyl (PCB) Report issued on time
- Hanford Site Waste Management Units Report issued May, 1989
- Underground Storage Tank Notification Report
- Material Safety Data Sheets maintained
- Superfund 120 Report issued on time
- Permitting Status Report issued monthly
- Hanford Environmental Management Plan to DOE-RL September, 1989
- Tri-Party Agreement Progress Reports issued quarterly

ACTIVITY ALTERNATIVES:
Stop maintaining hazardous chemical inventory information, thus increasing risk to emergency workers who are entering a facility. Not maintain records of waste sites thus increasing possibility of under estimating possible risk to the environment and public. Stop doing planning (in violation of DOE Orders and directives; also could result in serious safety or environmental infractions going uncorrected).

Stop doing reporting and challenge fines. Get reporting laws changed (unlikely). Subcontracting out will likely not reduce costs and may affect required 'certification' of regulatory reports.

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9051-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0176
FACILITY: HANFORD SITE - DEFENSE WASTE OPER
TITLE: ENVIRONMENTAL PLANNING & REPORTING (MH)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE, CWA, NEPA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	1415			0				
CAPITAL EQ								
GP PROJECTS								
LINE ITEMS								
TOTAL	1415	0	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/30/89	>Establish enforceable compliance action schedules		M-22-00
2/28/90	>Submit 5-Yr Plan ADS's to DOE-HQ		
3/01/90	>Issue biannual EPA Waste Minimization report		
3/01/90	>Submit Dangerous Waste report to State of WA		
3/01/90	>Submit SARA Title III section 312 report		
5/31/90	>Prepare OMB Circular A-106 Pollution Abatement report update		
7/01/90	>Submit SARA Title III section 313 report		
7/31/90	>RL 5-Yr Waste Management & Environmental Restoration plan		
11/30/90	>Prepare OMB Circular A-106 Pollution Abatement Report		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9051-MH-0

ACTIVITY DESCRIPTION:
This program covers:

- evaluating operations to determine environmental compliance status to all environmental regulations;
- developing and maintaining compliance plans to reflect new regulations, facility changes and improvements;
- coordinating reporting activities covering hazardous chemical used and stored on site (SARA Title III reports);
- coordinating and reporting annual hazardous waste disposal activities (State Dangerous Waste and TSD Report);
- maintain Hazardous Material inventory database on a weekly basis;
- NEPA strategy development;
- developing and performing site-wide hazardous waste training and waste minimization programs. This activity reports waste minimization activities/progress which will be referenced in Tri-Party Agreement reports generated under TPA milestones M-04 & M-25;
- conducting long term planning including "5-Year Waste Management and Environmental Restoration Site Specific Plan," 5400.1 required plans, and regulatory review;
- maintain Waste Information Database (major new data updates are funded separately); and
- $150K per year to State of Washington for air permitting fees.

The hazardous chemicals records, which are maintained in a computerized database, are used by emergency response personnel (firefighters, etc.) to determine what hazardous chemicals are in buildings they enter and for orienting workers to chemical hazards in their work places.

Large fines and possible criminal penalties can be applied if regulatory reporting is not done on schedule or in quality manner (up to $25,000 per day fines). Documents require formal certification and adequate maintenance of records.

This activity is funded via "assessing" other programs in FY 1990. See ADS 9052, Chemical Processing; ADS 9053, N Reactor Division; and ADS 9054, FFTF for remaining FY 1990 funding. The funding shares for the Environmental Restoration Program at Hanford, the Hanford Waste Vitrification Facility and PNL programs are covered in their individual sheets and not separately identified. Starting in FY 1991, the intent is that this program will be direct-funded rather than assessed (see ADS 9050).

FUNDING BASIS:
Three years actual costs in planning and regulatory reporting on a report by report basis. Each activity is prioritized and costed. Detailed assessment methodology and backup cost information is

FY 92 ADS ID: 9051-MH-0

published (WHC-SP-0518). Schedules are specified by environmental regulations.

PRIORITY RATIONALE:
Maintenance of Hazardous Material Inventory data is essential to assure safety to routine workers and emergency response teams because it alerts them to chemical hazards they may encounter. Maintenance of waste inventory records is essential in adequately determining potential health and environmental impacts, both onsite and offsite.

Planning and reporting are critical program functions which enable allocation and prioritization of resources. Planning and reporting are significant activities for precluding and identifying potential impacts to health and the environment. This work is also required by DOE Orders (plans, waste minimization), state laws (dangerous waste reporting), EPA (SARA Title III) etc. Failure to conduct this activity would result in significant program impact, potential large fines and criminal penalties, disrupt other agreements and programs, and reduce the ability to identify and respond to potential changes which may result in health and environmental impacts.

LEVEL OF CONFIDENCE RATIONALE:
Medium, based on three years of preparing these reports. Reporting requirements keep changing some, preventing a higher confidence level.

ACCOMPLISHMENTS TO DATE:

- Environmental Restoration and WAste Management and 5-Year Plan input to HQ and site specific plan prepared in Summer, 1989.
- Hanford Site Waste Minimization/Pollution Awareness Plan (5400.1) in final review
- Tier Two Hazardous Chemical Inventory Report (SARA, Title III, Section 312) issued on time
- Toxic Chemical Release Report (SARA, Title III, Section 313) issued on time
- Generator Annual Dangerous Waste and TSD Report issued March 9, 1990
- Polycholorinated Biphenyl (PCB) Report issued on time
- Hanford Site Waste Management Units Report issued May, 1989
- Underground Storage Tank Notification Report issued in 1989
- Material Safety Data Sheets maintained
- Superfund 120 Report issued on time
- Permitting Status Report issued monthly
- Hanford Environmental Management Plan to DOE-RL September, 1989

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9051-MH-0

- Tri-Party Agreement Progress Reports issued quarterly

ACTIVITY ALTERNATIVES:
Stop maintaining hazardous chemical inventory information, thus increasing risk to emergency workers who are entering a facility. Not maintain records of waste sites thus increasing possibility of under estimating possible risk to the environment and public. Stop doing reporting and challenge fines. Get reporting laws changed (unlikely). Stop doing planning (in violation of DOE orders and directives) which could result in serious safety or environmental infractions going uncorrected. Subcontracting out will likely not reduce costs and may affect required 'certification' of regulatory reports.

Prepared by: _____
C DEFIGH-PRICE

Approved by: _____
RD IZATT

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9052-MH-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: HANFORD SITE - CHEMICAL PROC (NMP)
TITLE: ENVIRONMENTAL PLANNING & REPORTING (MH)
PRIORITY: 1
B&R CODE: EW-30-10-01
A-106: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE, CWA, NEPA
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: IZATT, RD

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0173
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-5441

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	1403			0					
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	1403	0	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/30/89	>Establish enforceable compliance action schedules		M-22-00
2/28/90	>Submit 5-Yr Plan ADS's to DOE-HQ		
3/01/90	>Issue biannual EPA Waste Minimization report		
3/01/90	>Submit Dangerous Waste report to State of WA		
3/01/90	>Submit SARA Title III section 312 report		
5/31/90	>Prepare OMB Circular A-106 Pollution Abatement report update		
7/01/90	>Submit SARA Title III section 313 report		
7/31/90	>RL 5-Yr Waste Management & Environmental Restoration plan		
11/30/90	>Prepare OMB Circular A-106 Pollution Abatement report		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9052-MH-0

ACTIVITY DESCRIPTION:
This program covers:

- evaluating operations to determine environmental compliance status to all environmental regulations;
- developing and maintaining compliance plans to reflect new regulations, facility changes and improvements;
- coordinating reporting activities covering hazardous chemical used and stored on site (SARA Title III reports);
- coordinating and reporting annual hazardous waste disposal activities (State Dangerous Waste and TSD Report);
- maintain Hazardous Material inventory database on a weekly basis;
- NEPA strategy development;
- developing and performing site-wide hazardous waste training and waste minimization programs. This activity reports waste minimization activities/progress which will be referenced in Tri-Party Agreement reports generated under TPA milestones M-04 & M-25;
- conducting long term planning including "5-Year Waste Management and Environmental Restoration Site Specific Plan," 5400.1 required plans, and regulatory review;
- maintain Waste Information Database (major new data updates are funded separately); and
- $150K per year to State of Washington for air permitting fees.

The hazardous chemicals records, which are maintained in a computerized database, are used by emergency response personnel (firefighters, etc.) to determine what hazardous chemicals are in buildings they enter and for orienting workers to chemical hazards in their work places.

Large fines and possible criminal penalties can be applied if regulatory reporting is not done on schedule or in quality manner (up to $25,000 per day fines). Documents require formal certification and adequate maintenance of records.

This activity is funded via "assessing" other programs in FY 1990. See ADS 9051, Defense Waste Operations; ADS 9053, N Reactor Division; and ADS 9054, FFTF for remaining FY 1990 funding. The funding shares for the Environmental Restoration Program at Hanford, the Hanford Waste Vitrification Facility and PNL programs are covered in their individual sheets and not separately identified. Starting in FY 1991, the intent is that this program will be direct-funded rather than assessed (see ADS 9050).

FUNDING BASIS:
Three years actual costs in planning and regulatory reporting on a report by report basis. Each activity is prioritized and costed. Detailed assessment methodology and backup cost information is

FY 92 ADS ID: 9052-MH-0

published (WHC-SP-0518). Schedules are specified by environmental regulations.

PRIORITY RATIONALE:
Maintenance of Hazardous Material Inventory data is essential to assure safety to routine workers and emergency response teams because it alerts them to chemical hazards they may encounter. Maintenance of waste inventory records is essential in adequately determining potential health and environmental impacts, both onsite and offsite.

Planning and reporting are critical program functions which enable allocation and prioritization of resources. Planning and reporting are significant activities for precluding and identifying potential impacts to health and the environment. This work is also required by DOE Orders (plans, waste minimization), state laws (dangerous waste reporting), EPA (SARA Title III) etc. Failure to conduct this activity would result in significant program impact, potential large fines and criminal penalties, disrupt other agreements and programs, and reduce the ability to identify and respond to potential changes which may result in health and environmental impacts.

LEVEL OF CONFIDENCE RATIONALE:
Medium, based on three years of preparing these reports. Reporting requirements keep changing some, preventing a higher confidence level.

ACCOMPLISHMENTS TO DATE:

- Environmental Restoration and WAste Management and 5-Year Plan input to HQ and site specific plan prepared in Summer, 1989.
- Hanford Site Waste Minimization/Pollution Awareness Plan (5400.1) in final review
- Tier Two Hazardous Chemical Inventory Report (SARA, Title III, Section 312) issued on time
- Toxic Chemical Release Report (SARA, Title III, Section 313) issued on time
- Generator Annual Dangerous Waste and TSD Report issued March 9, 1990
- Polycholorinated Biphenyl (PCB) Report issued on time
- Hanford Site Waste Management Units Report issued May, 1989
- Underground Storage Tank Notification Report issued in 1989
- Material Safety Data Sheets maintained
- Superfund 120 Report issued on time
- Permitting Status Report issued monthly
- Hanford Environmental Management Plan to DOE-RL September, 1989

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9052-MH-0

- Tri-Party Agreement Progress Reports issued quarterly

ACTIVITY ALTERNATIVES:
Stop maintaining hazardous chemical inventory information, thus increasing risk to emergency workers who are entering a facility. Not maintain records of waste sites thus increasing possibility of under estimating possible risk to the environment and public. Stop doing reporting and challenge fines. Get reporting laws changed (unlikely). Stop doing planning (in violation of DOE orders and directives) which could result in serious safety or environmental infractions going uncorrected. Subcontracting out will likely not reduce costs and may affect required 'certification' of regulatory reports.

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9053-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0172
FACILITY: HANFORD SITE - N REACTOR FAC(NMP)
TITLE: ENVIRONMENTAL PLANNING & REPORTING (MH)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE, CWA, NEPA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	993			0					
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	993	0	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/30/89	>Establish enforceable compliance action schedules		M-22-00
2/28/90	>Submit 5-Yr Plan ADS's to DOE-HQ		
3/01/90	>Issue biannual EPA Waste Minimization report		
3/01/90	>Submit Dangerous Waste report to State of WA		
3/01/90	>Submit SARA Title III section 312 report		
5/31/90	>Prepare OMB Circular A-106 Pollution Abatement report update		
7/01/90	>Submit SARA Title III section 313 report		
7/31/90	>RL 5-Yr Waste Management & Environmental Restoration plan		
11/30/90	>Prepare OMB Circular A-106 Pollution Abatement report		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9053-MH-0

ACTIVITY DESCRIPTION:
This program covers:

- evaluating operations to determine environmental compliance status to all environmental regulations;
- developing and maintaining compliance plans to reflect new regulations, facility changes and improvements;
- coordinating reporting activities covering hazardous chemical used and stored on site (SARA Title III reports);
- coordinating and reporting annual hazardous waste disposal activities (State Dangerous Waste and TSD Report);
- maintain Hazardous Material inventory database on a weekly basis;
- NEPA strategy development;
- developing and performing site-wide hazardous waste training and waste minimization programs. This activity reports waste minimization activities/progress which will be referenced in Tri-Party Agreement reports generated under TPA milestones M-04 & M-25;
- conducting long term planning including "5-Year Waste Management and Environmental Restoration Site Specific Plan," 5400.1 required plans, and regulatory review;
- maintain Waste Information Database (major new data updates are funded separately); and
- $150K per year to State of Washington for air permitting fees.

The hazardous chemicals records, which are maintained in a computerized database, are used by emergency response personnel (firefighters, etc.) to determine what hazardous chemicals are in buildings they enter and for orienting workers to chemical hazards in their work places.

Large fines and possible criminal penalties can be applied if regulatory reporting is not done on schedule or in quality manner (up to $25,000 per day fines). Documents require formal certification and adequate maintenance of records.

This activity is funded via "assessing" other programs in FY 1990. See ADS 9051, Defense Waste Operations; ADS 9052, Chemical Processing; and ADS 9054, FFTF for remaining FY 1990 funding. The funding shares for the Environmental Restoration Program at Hanford, the Hanford Waste Vitrification Facility and PNL programs are covered in their individual sheets and not separately identified. Starting in FY 1991, this program will be direct-funded rather than assessed (see ADS 9050).

FUNDING BASIS:
Three years actual costs in planning and regulatory reporting on a report by report basis. Each activity is prioritized and costed. Detailed assessment methodology and backup cost information is published (WHC-SP-0518). Schedules are specified by environmental

FY 92 ADS ID: 9053-MH-0

regulations.

PRIORITY RATIONALE:
Maintenance of Hazardous Material Inventory data is essential to assure safety to routine workers and emergency response teams because it alerts them to chemical hazards they may encounter. Maintenance of waste inventory records is essential in adequately determining potential health and environmental impacts, both onsite and offsite.

Planning and reporting are critical program functions which enable allocation and prioritization of resources. Planning and reporting are significant activities for precluding and identifying potential impacts to health and the environment. This work is also required by DOE Orders (plans, waste minimization), state laws (dangerous waste reporting), EPA (SARA Title III) etc. Failure to conduct this activity would result in significant program impact, potential large fines and criminal penalties, disrupt other agreements and programs, and reduce the ability to identify and respond to potential changes which may result in health and environmental impacts.

LEVEL OF CONFIDENCE RATIONALE:
Medium, based on three years of preparing these reports. Reporting requirements keep changing some, preventing a higher confidence level.

ACCOMPLISHMENTS TO DATE:

- Environmental Restoration and WAste Management and 5-Year Plan input to HQ and site specific plan prepared in Summer, 1989.
- Hanford Site Waste Minimization/Pollution Awareness Plan (5400.1) in final review
- Tier Two Hazardous Chemical Inventory Report (SARA, Title III, Section 312) issued on time
- Toxic Chemical Release Report (SARA, Title III, Section 313) issued on time
- Generator Annual Dangerous Waste and TSD Report issued March 9, 1990
- Polycholorinated Biphenyl (PCB) Report issued on time
- Hanford Site Waste Management Units Report issued May, 1989
- Underground Storage Tank Notification Report issued in 1989
- Material Safety Data Sheets maintained
- Superfund 120 Report issued on time
- Permitting Status Report issued monthly
- Hanford Environmental Management Plan to DOE-RL September, 1989
- Tri-Party Agreement Progress Reports issued quarterly

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9053-MH-0

ACTIVITY ALTERNATIVES:
Stop maintaining hazardous chemical inventory information, thus increasing risk to emergency workers who are entering a facility. Not maintain records of waste sites thus increasing possibility of under estimating possible risk to the environment and public. Stop doing reporting and challenge fines. Get reporting laws changed (unlikely). Stop doing planning (in violation of DOE orders and directives) which could result in serious safety or environmental infractions going uncorrected. Subcontracting out will likely not reduce costs and may affect required 'certification' of regulatory reports.

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN:
ACTIVITY DATA SHEET

FY 92 ADS ID: 9054-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0174
FACILITY: FFTF
TITLE: ENVIRONMENTAL PLANNING & REPORTING (MH)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE, CWA, NEPA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ
OPERATING	473			0				
CAPITAL EQ								
GP PROJECTS								
LINE ITEMS								
TOTAL	473	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/30/89	>Establish enforceable compliance action schedules		M-22-00
3/01/90	>Issue biannual EPA Waste Minimization Report		
3/01/90	>Submit Dangerous Waste report to State of WA		
3/01/90	>Submit SARA Title III Section 312 Report		
5/31/90	>Prepare OMB Circular A-106 Pollution Abatement Report update		
7/01/90	>Submit SARA Title III Section 313 Report		
7/31/90	>RL 5-Yr Waste Management & Environmental Restoration Plan		
11/30/90	>Prepare OMB Circular A-106 Pollution Abatement report		
12/31/90	>Submit 5-Yr Plan ADS's to DOE-HQ		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9054-MH-0

ACTIVITY DESCRIPTION:
This program covers:

- evaluating operations to determine environmental compliance status to all environmental regulations;
- developing and maintaining compliance plans to reflect new regulations, facility changes and improvements;
- coordinating reporting activities covering hazardous chemical used and stored on site (SARA Title III reports);
- coordinating and reporting annual hazardous waste disposal activities (State Dangerous Waste and TSD Report);
- maintain Hazardous Material inventory database on a weekly basis;
- NEPA strategy development;
- developing and performing site-wide hazardous waste training and waste minimization programs. This activity reports waste minimization activities/progress which will be referenced in Tri-Party Agreement reports generated under TPA milestones M-04 & M-25;
- conducting long term planning including "5-Year Waste Management and Environmental Restoration Site Specific Plan," 5400.1 required plans, and regulatory review;
- maintain Waste Information Database (major new data updates are funded separately); and
- $150K per year to State of Washington for air permitting fees.

The hazardous chemicals records, which are maintained in a computerized database, are used by emergency response personnel (firefighters, etc.) to determine what hazardous chemicals are in buildings they enter and for orienting workers to chemical hazards in their work places.

Large fines and possible criminal penalties can be applied if regulatory reporting is not done on schedule or in quality manner (up to $25,000 per day fines). Documents require formal certification and adequate maintenance of records.

This activity is funded via "assessing" other programs in FY 1990. See ADS 9051, Defense Waste Operations; ADS 9052, Chemical Processing; and ADS 9053, N Reactor Division for remaining FY 1990 funding. The funding shares for the Environmental Restoration Program at Hanford, the Hanford Waste Vitrification Facility and PNL programs are covered in their individual sheets and not separately identified. Starting in FY 1991, the intentis that this program will be direct-funded rather than assessed (see ADS 9050).

FUNDING BASIS:
Three years actual costs in planning and regulatory reporting on a report by report basis. Each activity is prioritized and costed. Detailed assessment methodology and backup cost information is

FY 92 ADS ID: 9054-MH-0

published (WHC-SP-0518). Schedules are specified by environmental regulations.

PRIORITY RATIONALE:
Maintenance of Hazardous Material Inventory data is essential to assure safety to routine workers and emergency response teams because it alerts them to chemical hazards they may encounter. Maintenance of waste inventory records is essential in adequately determining potential health and environmental impacts, both onsite and offsite.

Planning and reporting are critical program functions which enable allocation and prioritization of resources. Planning and reporting are significant activities for precluding and identifying potential impacts to health and the environment. This work is also required by DOE Orders (plans, waste minimization), state laws (dangerous waste reporting), EPA (SARA Title III) etc. Failure to conduct this activity would result in significant program impact, potential large fines and criminal penalties, disrupt other agreements and programs, and reduce the ability to identify and respond to potential changes which may result in health and environmental impacts.

LEVEL OF CONFIDENCE RATIONALE:
Medium, based on three years of preparing these reports. Reporting requirements keep changing some, preventing a higher confidence level.

ACCOMPLISHMENTS TO DATE:

- Environmental Restoration and WAste Management and 5-Year Plan input to HQ and site specific plan prepared in Summer, 1989.
- Hanford Site Waste Minimization/Pollution Awareness Plan (5400.1) in final review
- Tier Two Hazardous Chemical Inventory Report (SARA, Title III, Section 312) issued on time
- Toxic Chemical Release Report (SARA, Title III, Section 313) issued on time
- Generator Annual Dangerous Waste and TSD Report issued March 9, 1990
- Polycholorinated Biphenyl (PCB) Report issued on time
- Hanford Site Waste Management Units Report issued May, 1989
- Underground Storage Tank Notification Report issued in 1989
- Material Safety Data Sheets maintained
- Superfund 120 Report issued on time
- Permitting Status Report issued monthly
- Hanford Environmental Management Plan to DOE-RL September, 1989

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9054-MH-0

- Tri-Party Agreement Progress Reports issued quarterly

ACTIVITY ALTERNATIVES:
Stop maintaining hazardous chemical inventory information, thus increasing risk to emergency workers who are entering a facility. Not maintain records of waste sites thus increasing possibility of under estimating possible risk to the environment and public. Stop doing reporting and challenge fines. Get reporting laws changed (unlikely). Stop doing planning (in violation of DOE orders and directives) which could result in serious safety or environmental infractions going uncorrected. Subcontracting out will likely not reduce costs and may affect required 'certification' of regulatory reports.

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9055-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0200
FACILITY: HANFORD SITE
TITLE: TRI-PARTY AGREEMENT MANAGEMENT (MH)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-00
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		953	900	790	900	900	900	900	900
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	953	900	790	900	900	900	900	900

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/91	>Issue Tri-Party Agreement quarterly progress report each yr		
5/31/91	>Issue Tri-Party Agreement quarterly progress report each yr		
8/31/91	>Issue Tri-Party Agreement quarterly progress report each yr		
11/30/91	>Issue Tri-Party Agreement quarterly progress report each yr		

== NARRATIVE ==

ACTIVITY DESCRIPTION:

Milestones shown for 1991 are repeated every year from 1992-1996.

Management and administrative staff (six dedicated people, scheduling staff, reproduction, word processing, etc.) necessary to maintain, track and status the Tri-Party Agreement (TPA) are covered. Work

FY 92 ADS ID: 9055-MH-0

includes issuing quarterly status reports, milestone tracking, coordinating public meetings, and managing the four information repositories, etc.

Funding of this in FY 1990 is assessed to the various programs, based on the percentage of operating dollars associated with Tri-Party Agreement (TPA) work. The split is: Defense Waste 43.4%, (ADS 9056); Environmental Restoration 40.3%; HWVP 9.9% (ADS 4000); Decontamination & Decommissioning 2.9%; N Reactor Division 2.3% (ADS 9057); Chemical Processing 1.1% (ADS 9058); and Advanced Reactor Division 0.1%. Starting in FY 1991, the intent is that this will be direct funded.

At the FY 1991B funding level, an administrative staff support position will be eliminated. Minimum staff levels will be maintained; quarterly reports and schedules will be issued as planned.

See also ADS 9059-MH and 5004-E2 for related state funding which had been covered in this ADS in earlier drafts.

FUNDING BASIS:
The six dedicated contractor staff are on-board. Work in 1989 since the signing of the agreement has shown this number of staff to be necessary.

PRIORITY RATIONALE:
Quarterly reports and quarterly public meetings are all specified in the Tri-Party Agreement (no specific milestone assigned however). Management and administrative staff essential to support implementation of the agreement.

LEVEL OF CONFIDENCE RATIONALE:
High as the six staff are on board and functioning.

ACCOMPLISHMENTS TO DATE:
Tri-Party Agreement signed May, 1989. Two quarterly reports issued and a third in final review. Two sets of public status meetings held to date. Schedules and tracking systems developed and maintained.

ACTIVITY ALTERNATIVES:
1) Violate the Tri-Party Agreement
2) NOT issue quarterly reports (Tri-Party Agreement commitment thus violated)
3) Fail to maintain or update schedules.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9055-MH-0

Prepared by: C DEFIGH-PRICE

Approved by: SHW RD IZATT

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9056-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0200
FACILITY: HANFORD WASTE MANAGEMENT
TITLE: TRI-PARTY AGREEMENT (MH)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-00
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	785								
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	785	0	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/90	>Issue Tri-Party Agreement quarterly progress report each yr		
5/31/90	>Issue Tri-Party Agreement quarterly progress report each yr		
8/31/90	>Issue Tri-Party Agreement quarterly progress report each yr		
11/30/90	>Issue Tri-Party Agreement quarterly progress report each yr		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Tri-Party Agreement contains a funding agreement in which DOE agrees to fund State of Washington Department of Ecology a total of $2.8M over 3 years (FY 1989-1991) for RCRA general support activities. Refer to RL Funding Grant 11744. $500K was paid in FY 1989. $1.2M will be paid in FY 1990 and remainder will be paid in FY 1991.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9056-MH-0

Funding of this in FY 1990 is assessed to the various programs, based on the percentage of operating dollars associated with Tri-Party Agreement (TPA) work. The split is: Defense Waste 43.4%, (ADS 9056); Environmental Restoration 40.3%; HWVP 9.9% (ADS 4000); Decontamination & Decommissioning 2.9%; N Reactor Division 2.3% (ADS 9057); Chemical Processing 1.1% (ADS 9058); and Advanced Reactor Division 0.1%. Starting in FY 1991, the intent is that this will be direct funded. (See ADS 9055-MH, 9059-MH, and 5004-ER for FY 1991 and beyond).

Administrative staff (six dedicated people, scheduling staff, reproduction, word processing, etc.) necessary to maintain, track and status the TPA are also covered. This includes issuing quarterly status reports, milestone tracking, coordinating public meetings, and managing the four information repositories, etc.

FUNDING BASIS:
Signed funding agreement in Tri-Party Agreement (see last section of document) states amounts to be paid through FY 1991. RL grant 11744 is in place for this "RCRA State Grant" The six dedicated contractor staff are on-board. Work in 1989 has shown this number of staff to be necessary.

PRIORITY RATIONALE:
Quarterly reports, quarterly public meetings and the funding agreement are all specified in the Tri-Party Agreement (no specific milestone assigned however).

LEVEL OF CONFIDENCE RATIONALE:
High as the six staff are on board and the funding agreement (Grant 11744) is in place.

ACCOMPLISHMENTS TO DATE:
Tri-Party Agreement signed May, 1989. Two quarterly reports issued and a third in final review. Two sets of public status meetings held to date. First installment in funding agreement paid. Schedules and tracking systems developed and maintained.

ACTIVITY ALTERNATIVES:
1) Violate the Tri-Party Agreement, 2) Renegotiate the funding agreement, 3) NOT issue quarterly reports (Tri-Party Agreement commitment thus violated), 4) fail to maintain or update schedules.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9056-MH-0

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9057-MH-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: HANFORD N REACTOR
TITLE: TRI-PARTY AGREEMENT(MH)
PRIORITY: 2
B&R CODE: EW-30-10-01
A-106: N
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: IZATT, RD

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0200
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: M-00
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-5441

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1992 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	41								
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	41	0	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/90	>Issue Tri-Party Agreement quarterly progress report each yr		
5/31/90	>Issue Tri-Party Agreement quarterly progress report each yr		
8/31/90	>Issue Tri-Party Agreement quarterly progress report each yr		
11/30/90	>Issue Tri-Party Agreement quarterly progress report each yr		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Tri-Party Agreement contains a funding agreement in which DOE agrees to fund State of Washington Department of Ecology a total of $2.8M over 3 years (FY 1989-1991) for RCRA general support activities. Refer to RL Funding Grant 11744. $500K was paid in FY 1989. $1.2M will be paid in FY 1990 and remainder will be paid in FY 1991.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9057-MH-0

Funding of this in FY 1990 is assessed to the various programs, based on the percentage of operating dollars associated with Tri-Party Agreement (TPA) work. The split is: Defense Waste 43.4%, (ADS 9056); Environmental Restoration 40.3%; HWVP 9.9% (ADS 4000); Decontamination & Decommissioning 2.9%; N Reactor Division 2.3% (ADS 9057); Chemical Processing 1.1% (ADS 9058); and Advanced Reactor Division 0.1%. Starting in FY 1991, the intent is that this will be direct funded. (See ADS 9055-MH, 9059-MH, and 5004-ER for FY 1991 and beyond).

Administrative staff (six dedicated people, scheduling staff, reproduction, word processing, etc.) necessary to maintain, track and status the TPA are also covered. This includes issuing quarterly status reports, milestone tracking, coordinating public meetings, and managing the four information repositories, etc.

FUNDING BASIS:
Signed funding agreement in Tri-Party Agreement (see last sector of document) states amounts to be paid through FY 1991. RL grant 11744 is in place for this "RCRA State Grant" The six dedicated contractor staff are on-board. Work in 1989 has shown this number of staff to be necessary.

PRIORITY RATIONALE:
Quarterly reports, quarterly public meetings and the funding agreement are all specified in the Tri-Party Agreement (no specific milestone assigned however).

LEVEL OF CONFIDENCE RATIONALE:
High as the six staff are on board and the funding agreement (Grant 11744) is in place.

ACCOMPLISHMENTS TO DATE:
Tri-Party Agreement signed May, 1989. Two quarterly reports issued and a third in final review. Two sets of public status meetings held to date. First installment in funding agreement paid. Schedules and tracking systems developed and maintained.

ACTIVITY ALTERNATIVES:
1) Violate the Tri-Party Agreement, 2) Renegotiate the funding agreement, 3) NOT issue quarterly reports (Tri-Party Agreement commitment thus violated), 4) fail to maintain or update schedules.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9057-MH-0

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9058-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0200
FACILITY: HANFORD CHEMICAL PROCESSING
TITLE: TRI-PARTY AGREEMENT(MH)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-00
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	19								
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	19	0	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/90	>Issue Tri-Party Agreement quarterly progress report each yr		
5/31/90	>Issue Tri-Party Agreement quarterly progress report each yr		
8/31/90	>Issue Tri-Party Agreement quarterly progress report each yr		
11/30/90	>Issue Tri-Party Agreement quarterly progress report each yr		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Tri-Party Agreement contains a funding agreement in which DOE agrees to fund State of Washington Department of Ecology a total of $2.8M over 3 years (FY 1989-1991) for RCRA general support activities. Refer to RL Funding Grant 11744. $500K was paid in FY 1989. $1.2M will be paid in FY 1990 and remainder will be paid in FY 1991.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9058-MH-0

Funding of this in FY 1990 is assessed to the various programs, based on the percentage of operating dollars associated with Tri-Party Agreement (TPA) work. The split is: Defense Waste 43.4%, (ADS 9056); Environmental Restoration 40.3%; HWVP 9.9% (ADS 4000); Decontamination & Decommissioning 2.9%; N Reactor Division 2.3% (ADS 9057); Chemical Processing 1.1% (ADS 9058); and Advanced Reactor Division 0.1%. Starting in FY 1991, the intent is that this will be direct funded. (See ADS 9055-MH, 9059-MH, and 5004-ER for FY1991 and beyond).

Administrative staff (six dedicated people, scheduling staff, reproduction, word processing, etc.) necessary to maintain, track and status the TPA are also covered. This includes issuing quarterly status reports, milestone tracking, coordinating public meetings, and managing the four information repositories, etc.

FUNDING BASIS:
Signed funding agreement in Tri-Party Agreement (see last sector of document) states amounts to be paid through FY 1991. RL grant 11744 is in place for this "RCRA State Grant" The six dedicated contractor staff are on-board. Work in 1989 has shown this number of staff to be necessary.

PRIORITY RATIONALE:
Quarterly reports, quarterly public meetings and the funding agreement are all specified in the Tri-Party Agreement (no specific milestone assigned however).

LEVEL OF CONFIDENCE RATIONALE:
High as the six staff are on board and the funding agreement (Grant 11744) is in place.

ACCOMPLISHMENTS TO DATE:
Tri-Party Agreement signed May, 1989. Two quarterly reports issued and a third in final review. Two sets of public status meetings held to date. First installment in funding agreement paid. Schedules and tracking systems developed and maintained.

ACTIVITY ALTERNATIVES:
1) Violate the Tri-Party Agreement, 2) Renegotiate the funding agreement, 3) NOT issue quarterly reports (Tri-Party Agreement commitment thus violated), 4) fail to maintain or update schedules.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9058-MH-0

Prepared by: C. Defigh-Price
C DEFIGH-PRICE

Approved by: Signed
RD IZATT

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9059-MH-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0200
FACILITY: HANFORD SITE
TITLE: TRI-PARTY AGREEMENT STATE FUNDING (MH)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-50-10 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-00
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: IZATT, RD PHONE: 509-376-5441

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991		1992	1993	1994	1995	1996	
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING			500	500	500	500	500	500	500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	500	500	500	500	500	500	500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Tri-Party Agreement contains a funding agreement in which DOE agrees to fund State of Washington Department of Ecology a total of $2.8M over 3 years (FY 1989-1991) for RCRA general support activities. Refer to RL Funding Grant 11744. This ADS covers the Waste Management portion of the amount; see ADS 5004-E2 for the Environmental Restoration portion. $500K total was paid in FY 1989. $1.2M total will be paid in FY 1990 and remainder ($1.1M) will be paid in FY 1991. After 1991, continued funding is highly likely. The amount will be renegotiated periodically.

Funding of this in FY 1990 is assessed to the various programs, based on the percentage of operating dollars associated with Tri-Party Agreement (TPA) work. The split is: Defense Waste 43.4%, (ADS 9056); Environmental Restoration 40.3% (ADS 5004-E2); HWVP 9.9% (ADS 4000);

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9059-MH-0

Decontamination & Decommissioning 2.9%; N Reactor Division 2.3% (ADS 9057); Chemical Processing 1.1% (ADS 9058); and Advanced Reactor Division 0.1%. Starting in FY 1991, the intent is that this will be direct funded between the two major programs (WM and ER).

The funding of the State RCRA grant in 1990-1996 is split between Environmental Restoration and Waste Management programs. This is the WM portion; see ADS 5004-E2 for the ER portion of this grant.

FUNDING BASIS:
Signed funding agreement in Tri-Party Agreement (see last section of document) states amounts to be paid through FY 1991. RL grant 11744 is in place for this "RCRA State Grant," which specifies dollars transferred each year. The State grant cost is split between Environmental Restoration and Waste Management. See ADS 5004 for remaining portion. As work does not stop, this is expected to continue until the agreement is met.

PRIORITY RATIONALE:
The funding agreement is specifically called out in the Tri-Party Agreement (see last section of document).

LEVEL OF CONFIDENCE RATIONALE:
Medium as the funding agreement (Grant 11744) is in place, which specifies agreed to dollars per year. It will be renegotiated annually.

ACCOMPLISHMENTS TO DATE:
Tri-Party Agreement signed May, 1989. State of Washington has added staff to meet their obligations for reviews and over sight activities. First installemnts of funding agreement have been paid.

ACTIVITY ALTERNATIVES:
1) Violate the Tri-Party Agreement
2) Renegotiate the funding agreement

Prepared by: C DEFIGH-PRICE

Approved by: RD IZATT

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9060-MJ-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIRONMENTAL MONITORING GROUNDWATER PROTECTION MANAGEMENT PROGRA
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING					600	700	700	800	800
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	600	700	700	800	800

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS

>

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY 1991 Bush Budget guidance.

This activity provides implementation of the Groundwater Protection Management Program (GPMP) to provide a coordinated approach to groundwater monitoring activities. It would include establishment of an Office of Groundwater Protection Management (OGPM) to ensure that all program elements identified in the GPMP (see ADS 9061-MJ-0) are addressed and funded in a timely manner. An Office of Well Management would coordinate well activities. The OGPM would organize onsite and offsite peers to review groundwater resource and data needs which accounts for the increase in funding for FY 1995 and FY 1996. Centralized database management would be implemented for existing and

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9060-MJ-0

future data.

This implementation would fulfill the requirements outlined in DOE Order 5400.1 and developed in the Groundwater Protection Management Program (DOE/RL 89-12).

FUNDING BASIS:
Funding is based upon projected staff required to support these activities priced out at standard labor rates.

PRIORITY RATIONALE:
Priority 3. This activity provides essential support to implementation of the plan developed in accordance with the DOE Order.

LEVEL OF CONFIDENCE RATIONALE:
Low. The level of confidence in these projections is based on an estimate of the minimum number of personnel necessary to address the OGPM issues initially followed by addition of personnel in later years for the Office of Well Management. Further expense for database management is provided in 1995 and 1996.

ACCOMPLISHMENTS TO DATE:
None

ACTIVITY ALTERNATIVES:
DOE Order 5400.1 directs the development of a Groundwater Protection Management Program and implementation of that program. Failure to implement the program would be in direct violation of the order. Implementation of recently completed program to be initiated in 1992.

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-1-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9061-MJ-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0021
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIRONMENTAL MONITORING - PROGRAM MGMT & GW SUPPORT
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		1275	1275		1333	1340	1340	1340	1340
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	1275	1275	0	1333	1340	1340	1340	1340

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>UPDATE HANFORD SITE GROUNDWATER PROTECTION MANAGEMENT PLAN (ANNUAL)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestone and the following narrative are based on receiving FY1991 Bush Budget Guidance.

This activity provides program management, financial control and reporting, program level scheduling and Geosciences administrative support. Includes support required to respond to QA audits and initiate corrective actions, and supports the unplanned, but essential to the program, walk-in work.

This activity also supports the development and maintenance of the Hanford Groundwater Protection Management Program Plan. This plan is needed to fulfill DOE environmental planning requirements outlined in

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9061-MJ-0

DOE Order 5400.1 (DOE 1986, p. III-2). The primary focus of this document is on development of a framework for coordination of existing groundwater protection and related programs and activities and on the process for identifying and correcting program deficiencies.

Also supported in this activity is the ongoing evaluation of the existing groundwater wells on the Hanford Site for suitability for use in the RCRA and CERCLA programs. If existing wells are found to be suitable or cost effectively remediated, considerable cost savings can be anticipated in the groundwater monitoring program.

FUNDING BASIS:
IN FY 1990 AND FY 1991 (BUSH BUDGET), COSTS FOR THIS PROGRAM ARE ASSESSED TO BENEFITTING PROGRAMS AND ARE REFLECTED SPECIFICALLY IN ADS'S 9491-4X, 5401-EV, AND OTHER ADS'S VIA APPLICATION OF THE COMPANY OVERHEADS. HOWEVER, BASED UPON FUNDING REDUCTIONS DIRECTED BY DOE, FY 1991 (BUSH BUDGET) FUNDING REFLECTED IN THESE ADS'S MAY NOT FULLY SUPPORT THESE ASSESSMENTS. FOR FY 1991 (REQUIRED) AND BEYOND, DIRECT FUNDING IS BEING REQUESTED AND THEREFORE COSTS FOR THIS PROGRAM ARE REFLECTED ON THIS ADS.

	1990	1991---------->			1992	1993	1994	1995	1996
Task	Approp	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
Prog Mgmt		335	335		355	355	355	355	355
Admin Support		383	383		405	405	405	405	405
QA Audit Support		230	230		243	250	250	250	250
Walk-In Work		200	200		200	200	200	200	200
GW Prot Plan		75	75		75	75	75	75	75
Well Use Study		52	52		55	55	55	55	55
		1275	1275	0	1333	1340	1340	1340	1340

Funding for this activity is based upon actual staff and operating experience over the past several years. No major change in workscope is anticipated. FY 1992 funding reflects escalation over FY 1991 dollars.

PRIORITY RATIONALE:
Priority 1 and 3. Priority 1: Program management and administrative support (functional management) activities directly support the conduct of the RCRA groundwater monitoring program which is intended to detect and assess the extent of groundwater contamination and thereby prevent the spread of contamination offsite. Priority 3: QA audit support, walk-in work, and the Groundwater Protection Management Plan support the general compliance with environmental and DOE regulations. The Well Use Study represents a potential for cost savings if it can be determined that certain existing wells are suitable for RCRA activities.

LEVEL OF CONFIDENCE RATIONALE:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9061-MJ-0

High. The level of confidence in these budget projections is high because they are based on actual costs and operating experience over the past several years. No major change in workscope is anticipated.

ACCOMPLISHMENTS TO DATE:
The Hanford Groundwater Protection Management Plan was issued in October 1989 with an annual update anticipated.

ACTIVITY ALTERNATIVES:
Failure to fund the Priority 1 tasks in this ADS would result in DOE-RL facilities subject to 40 CFR Part 265, Subpart F, being out of compliance. Enforcement action has been deferred for as long as the RCRA well installation schedule stipulated in the TPA is maintained. To maintain this deferment, this activity must be supported. Without this deferment, key waste management facilities would be unable to operate. The Groundwater Protection Management Plan could forego the annual update, but this would violate DOE Order 5400.1. The walk-in work task could be eliminated; however, experience indicates that this task is essential to proper program management. QA audit support directly supports DOE audits which are performed to assure compliance with applicable DOE regulations.

Prepared by: DA Turner for
BA AUSTIN

Approved by: RE Gerton for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9063-MJ-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0021
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR MONITORING - ENVIR MON, WELL SAMPLING & ANALYSIS
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1992 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	5168	5960	1660	6342	7285	7785	8085	8560
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	5168	5960	1660	6342	7285	7785	8085	8560

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/89	>PREPARE/REVISE ENVIRONMENTAL MONITORING PROGRAM MANAGEMENT PLAN (ANNUAL)		
9/30/90	>REPORT GROUNDWATER MONITORING RESULTS TO STATE/FEDERAL (ANNUAL)		
9/30/90	>UPDATE HANFORD GROUNDWATER DATABASE (ANNUAL)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY1991 Bush Budget Guidance.

This activity funds activities associated with the groundwater monitoring and sample analysis at RCRA regulated liquid disposal facilities and operational well monitoring of waste sites for radioactive and hazardous constituents at 100, 200, 300, 400, and 1100 Areas of the Hanford Site. All activities are performed in compliance

FY 92 ADS ID: 9063-MJ-0

with WAC 173-305, WHC-CM-6-1, Standard Engineering Practices, Environmental Investigation Instructions, and all applicable safety, QA, and environmental requirements. In addition, operational well monitoring must satisfy the requirements of DOE Order 5400.1 and 5820.2A. Work tasks include:

* Preparation and/or revision of Program Management Plan/QAPP that includes well numbers and constituents to be analyzed, sampling schedules, and reporting requirements.
* Collection and analysis of samples per approved procedures.
* Review of data for accuracy.
* Inclusion of data in the Hanford Groundwater Database.
* Statistical and trend analysis of sample results.
* Reporting of monitoring results in compliance with applicable Federal (40.CFR.265) and State (WAC 173-303) requirements.
* Prepare an assessment of the current year's groundwater monitoring program and provide recommendations for the following year's program.
* Preparation of quarterly briefings detailing results of monitoring activities, reporting of trends, identification of groundwater pollution, contamination, etc..

FUNDING BASIS:
IN FY 1990 AND FY 1991 (BUSH BUDGET), COSTS FOR THIS PROGRAM, EXCLUDING OPERATIONAL GROUNDWATER MONITORING IN FY 1991, ARE ASSESSED TO BENEFITTING PROGRAMS AND ARE REFLECTED SPECIFICALLY IN ADS'S 9491-4X, 5401-EV, AND OTHER ADS'S VIA APPLICATION OF THE COMPANY OVERHEADS. HOWEVER, BASED UPON FUNDING REDUCTIONS BY DOE, FY 1991 (BUSH BUDGET) FUNDING REFLECTED IN THESE ADS'S MAY NOT FULLY SUPPORT THESE ASSESSMENTS. FOR FY 1991 REQUIRED (AND FY 1991 BUSH BUDGET FOR OPERATIONAL GROUNDWATER MONITORING) AND BEYOND, DIRECT FUNDING IS BEING REQUESTED AND THEREFORE COSTS FOR THIS PROGRAM ARE REFLECTED ON THIS ADS.

	1990	1991---------->			1992	1993	1994	1995	1996
Task	Approp	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
RCRA GW Mon		3508	4300	0	4542	5485	5985	6285	6760
Oper GW Mon		1660	1660	1660	1800	1800	1800	1800	1800
		5168	5960	0	6342	7285	7785	8085	8560

Funding for this activity is based upon actual staff and operating experience over the past several years. No major change in workscope is anticipated. FY 1992 funding reflects escalation over FY 1991 dollars.

The continued increase from year to year represents the addition of the new wells each year to the sampling and analysis program. Each new well drilled is sampled initially on a quarterly basis.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9063-MJ-0

Like ADS 9062-MJ-0, these budget projections do not include incremental costs associated with the transition of a waste site from the detection mode of monitoring to the assessment mode. As a site transitions to an assessment mode, significant additional sampling and analysis costs will be incurred. See ADS 9068-MJ-0 for these projections.

PRIORITY RATIONALE:
Priority 1. This activity is necessary to prevent near-term adverse impacts to the public and to the environment. The RCRA groundwater monitoring program is intended to detect and assess the extent of groundwater contamination and thereby prevent the spread of contamination offsite.

LEVEL OF CONFIDENCE RATIONALE:
High. Level of confidence in these budget estimates are rated high because they are based on past cost experience and continued close monitoring and negotiation of workscope required to perform this activity.

ACCOMPLISHMENTS TO DATE:
Completed the FY 1989 RCRA and Operational Monitoring Well Sampling and Analysis program as required to meet applicable regulations.

ACTIVITY ALTERNATIVES:
Failure to fund these activities would result in DOE-RL facilities subject to 40 CFR Part 265, Subpart F, being out of compliance. Enforcement action has been deferred for as long as the RCRA well installation schedule stipulated in the TPA is maintained. To maintain this deferment, this activity must be supported. Without this deferment, key waste management facilities would be unable to operate.

Prepared by: BA Austin for
BA AUSTIN

Approved by: RE Gerton 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9064-MJ-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0021
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR MONITORING - GW MON WELL MAINTENANCE & REMEDIATION
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	1900	1900	0	2000	2000	2000	2000	2000
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	1900	1900	0	2000	2000	2000	2000	2000

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/89	>ISSUE PRIORITIZED LIST OF GROUNDWATER MONITORING WELLS REQUIRING MAINT AND REMED (ANNUAL)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestone and the following narrative are based on receiving FY1991 Bush Budget Guidance.

Task - Well Maintenance:
This workscope includes performing routine and non-routine maintenance on groundwater/ vadose monitoring and observation wells in the 100, 200, 300, 400, and 600 Areas.

Activities include:
* Pump removal, repair, and reinstallation
* Well development, bailing, and removal of obstructions within

the well which do not affect the facility structure
* Borehole video camera inspections
* Repairs to surface components of the facility including purge water tanks

Activities are in support of hydrologic data gathering (sampling and water level measurements) mandated by Federal and State regulations and to upgrade facilities to comply with WAC standards.

Task - Well Remediation/Abandonment:
This task supports the coordination and performance of all activities associated with the remediation, upgrading and decommissioning of groundwater monitoring wells and vadose wells on the Hanford site. Remediation activities enable wells to conform to "fitness for use" requirements or result in closure of non-compliant facilities in accordance with State and Federal requirements. Wells identified as requiring remediation will be evaluated and dispositioned based on the priorities of the operable units and/or facilities.
Activities include:
* Evaluation of well construction and characterization data
* Identification of wells requiring remediation (reconfiguration or abandonment)
* Preparation of remediation plans, well specifications, and procedures
* Performance of field activities

A companion groundwater monitoring program providing CERCLA well maintenance and remediation is conducted by the Environmental Restoration Program to achieve CERCLA compliance. Close coordination between the two programs is maintained.

FUNDING BASIS:
IN FY 1990 AND FY 1991 (BUSH BUDGET), COSTS FOR THIS PROGRAM ARE ASSESSED TO BENEFITTING PROGRAMS AND ARE REFLECTED SPECIFICALLY IN ADS'S 9491-4X, 5401-EV, AND OTHER ADS'S VIA APPLICATION OF THE COMPANY OVERHEADS. HOWEVER, BASED UPON FUNDING REDUCTIONS DIRECTED BY DOE, FY 1991 (BUSH BUDGET) FUNDING REFLECTED IN THESE ADS'S MAY NOT FULLY SUPPORT THESE ASSESSMENTS. FOR FY 1991 (REQUIRED) AND BEYOND, DIRECT FUNDING IS BEING REQUESTED AND THEREFORE COSTS FOR THIS PROGRAM ARE REFLECTD ON THIS ADS.

Funding for this activity is based upon actual staff and operating experience over the past several years. FY 1992 funding reflects escalation over FY 1991 dollars.

Current funding levels for maintenance and remediation have been inadequate for a quality preventative maintenance program. Well remediation has been kept to a minimum because of lack of funding due to higher priority workscope, ie, well installation and sampling and

FY 92 ADS ID: 9064-MJ-0

analysis requirements. In FY 1989, Golder & Associates began a study of existing wells to determine what wells required remediation. The significant increase in funding requested from FY 1990 to FY 1991 and outyears reflects the findings of this study. Additionally, as more wells are drilled and put into service, more maintenance will be required.

PRIORITY RATIONALE:
Priority 3. Maintenance and remediation are activities that reduce risks and costs and prevent disruption of the DOE mission of groundwater monitoring and are therefore rated as Priority 3.

LEVEL OF CONFIDENCE RATIONALE:
Low. Level of confidence is low because the estimates are based in part on past cost experience, however there are numerous uncertainties associated with well remediation and especially well abandonment. Each well is unique and needs are determined on a case-by-case basis.

ACCOMPLISHMENTS TO DATE:
Completed initial evaluation of 700 wells for compliance with existing groundwater monitoring regulations. This evaluation provides an initial work base for the remediation program. Performed water table measurements to establish site groundwater levels. Completed the in place abandonment of well 399-1-16D.

ACTIVITY ALTERNATIVES:
Well maintenance and remediation efforts can continue to be deferred only at significant risk. Failed well seals permit communication between aquifers with the risk of unwarranted spread of contamination. Wells otherwise suitable to support RCRA/CERCLA groundwater monitoring activities could be lost. Certain maintenance, such as maintenance of sample pumps, must continue if the sampling and monitoring program is to continue.

Failure to fund these activities would result in DOE-RL facilities subject to 40 CFR Part 265, Subpart F, being out of compliance. Enforcement action has been deferred for as long as the RCRA well installation schedule stipulated in the TPA is maintained. To maintain this deferment, these activities must be supported.

Prepared by: BA AUSTIN for

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9067-MJ-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0303,0005
FACILITY: DISPOSAL
TITLE: ENVIR MONITORING - PURGEWATER DISPOSAL
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	1800	2000	0	2000	2000	2000	2000	
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	1800	2000	0	2000	2000	2000	2000	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY1991 Bush Budget Guidance.

This activity funds the work associated with the collection, transportation, storage, and analysis of groundwater monitoring well purgewater. Monitoring of groundwater for radioactive and chemical constituents at the Hanford Site is required by DOE, Washington Department of Ecology (Ecology), and the EPA. Groundwater is withdrawn from wells for (1) developing newly constructed groundwater monitoring wells prior to pump installation, (2) purging prior to sample collection, (3) testing of aquifers, and (4) periodic cleaning and renovating of existing wells. This withdrawn groundwater is referred to as purgewater. During FY 1989 a determination was made that

purgewater had to be classified as a dangerous waste due to the potential for containing listed waste leachate. Until it can be determined whether or not it contains a listed waste leachate, purgewater must be collected and put into interim storage until a final disposal strategy can be developed.

All sampling and well development activity was temporarily halted. Cattle troughs were procured for placement at the well head for storage of purgewater so the RCRA groundwater monitoring program could continue. To provide additional temporary storage, existing tanks in the 100K Area were brought into service. Meanwhile, installation of the first of six one million gallon modular tanks was completed in the 200 East Area and all existing purgewater is being transferred to that tank.

The preferred alternative for ultimate disposal of the stored purgewater is to utilize these modular storage tanks as solar evaporator basins when air permits have been obtained. Failing approval of air permits, purgewater will be processed in the 200 Area Treated Effluent Disposal Facility beginning in June 1995.

FUNDING BASIS:
IN FY 1990 AND FY 1991 (BUSH BUDGET), COSTS FOR THIS PROGRAM ARE ASSESSED TO BENEFITTING PROGRAMS AND ARE REFLECTED SPECIFICALLY IN ADS'S 9491-4X, 5401-EV, AND OTHER ADS'S VIA APPLICATION OF THE COMPANY OVERHEADS. HOWEVER, BASED UPON FUNDING REDUCTIONS DIRECTED BY DOE, FY 1991 (BUSH BUDGET) FUNDING REFLECTED IN THESE ADS'S MAY NOT FULLY SUPPORT THESE ASSESSMENTS. FOR FY 1991 (REQUIRED) AND BEYOND, DIRECT FUNDING IS BEING REQUESTED AND THEREFORE COSTS FOR THIS PROGRAM ARE REFLECTED ON THIS ADS.

Funding estimates are based on an engineering study and FDC addressing the purgewater disposal problem. Storage of purgewater is required for both the RCRA and CERCLA programs therefore an agreement has been reached between the Waste Management Division and the Environmental Restoration Division to each fund half of the cost for interim storage and final disposal.

PRIORITY RATIONALE:
Priority 2. Directly supports TPA milestone M-24-00, installation of RCRA groundwater monitoring wells which can not be completed without well development which generates purge water. RCRA/CERCLA groundwater monitoring programs are required for compliance with RCRA Part B interim status permits, by DOE Orders, and for environmental restoration activities. The groundwater monitoring can not be conducted without generating purgewater and purgewater must be disposed of properly due to the potential of being classified as dangerous waste.

LEVEL OF CONFIDENCE RATIONALE:
Medium. The engineering study and experience obtained in CY 1989 form

FY 92 ADS ID: 9067-MJ-0

the basis for these estimates to dispose of all purgewater generated by the RCRA/CERCLA programs. These are upper limits to the purgewater expenses. However, when criteria for disposing of uncontaminated purgewater directly to the ground are finalized by the Washington State DOE, it is possible that a portion of the purgewater can be disposed of directly to the ground and the rest disposed of via the modular storage tanks. Disposal of purgewater directly to the ground would marginally reduce the cost of purgewater disposal.

ACCOMPLISHMENTS TO DATE:
The first of six one million gallon modular storage tank has been completed and a second is in the final stages of completion. Purgewater being temporarily stored in cattle troughs across the Hanford Site are being emptied and the water stored in the 100K Area tanks has been transported to the modular storage tanks. Application for an air permit to utilize the six modular tanks as solar evaporator basins is in progress.

ACTIVITY ALTERNATIVES:
Failure to fund these activities would result in DOE-RL facilities subject to 40 CFR Part 265, Subpart F, being out of compliance. Enforcement action has been deferred for as long as the RCRA well installation schedule stipulated in the TPA is maintained. To maintain this deferment, this activity must be supported. Without this deferment, key waste management facilities would be unable to operate.

Prepared by: BA Austin for
BA AUSTIN

Approved by: RE Gerton for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9068-MJ-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR MONITORING - TRANSITION - PROG DETECTION TO ASSESSMENT
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		0	164		834	994	1152	1282	1972
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	164	0	834	994	1152	1282	1972

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY1991 Bush Budget Guidance.

The waste management disposal sites on the Hanford Site have been designated as dangerous waste management units under State of Washington Hazardous Waste Management Act of 1976 as amended and are operating under interim status. As specified in the Washington Administrative Code (WAC) 173-303-400 (3)(a), these waste management units are subject to the standards found in Title 40, Code of Federal Regulations (CFR), Part 265, Subparts F through R. Subpart F (40 CFR 265.92) requires that the groundwater be sampled and analyzed for specific constituents. Initial sampling and analysis is required quarterly. The results from the first four sampling events are used to establish background data,

and subsequent sampling results are used to determine if the waste site is affecting the groundwater.

Data from the groundwater monitoring well sample analysis is analyzed using the statistical analyses required by 40 CFR 265.93 (b). If this analysis detects a statistical difference between the background data and the newly generated data, the groundwater monitoring program for that site will cease to be detection level monitoring and will transition to a groundwater quality assessment program. Once the statistical difference is determined, two actions are required:

(1) Notify the WDOE within seven days that the facility may be affecting groundwater quality [WAC 173-303-400(3)(b)(i)], and
(2) Within 15 days of notifying the WDOE, develop and submit to WDOE a specific plan for the groundwater quality assessment program at the facility. [40 CFR 265.93 (d)(2)]

This activity provides funding to support the transition of ongoing detection-level RCRA groundwater monitoring programs to assessment quality programs as described above. Activities include development of plans for groundwater quality assessment programs, additional sampling of existing wells, analysis for detection of additional constituents in the samples and installation, in some cases, of additional RCRA compliant groundwater monitoring wells.

FUNDING BASIS:
This is a new task for FY 1991 Required case and not covered in the FY 1991 Bush Budget.

Limited experience exists at this time to accurately estimate the incremental costs associated with a groundwater monitoring program transitioning from detection to assessment mode. The specific plan written for each site will outline the program and until this plan is complete, cost estimates are rough order of magnitude.

PRIORITY RATIONALE:
Priority 1. This activity is necessary to prevent near-term adverse impacts to the public and to the environment. The RCRA groundwater monitoring program is intended to detect and assess the extent of groundwater contamination and thereby prevent the spread of contamination offsite.

LEVEL OF CONFIDENCE RATIONALE:
Low. Until the specific groundwater quality assessment program plan is prepared, key information upon which budget quality estimates are made is not available. These plans will identify any needed additional sampling, additional sample analyses, and additional wells that will be required to complete the program.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9068-MJ-0

ACCOMPLISHMENTS TO DATE:
An informal review of current RCRA groundwater monitoring results has been completed to assess the likelihood of certain RCRA sites transitioning from the detection mode to the groundwater quality assessment mode.

ACTIVITY ALTERNATIVES:
Failure to fund these activities would result in DOE-RL facilities subject to 40 CFR Part 265, Subpart F, being out of compliance. Enforcement action has been deferred for as long as the RCRA well installation schedule stipulated in the TPA is maintained. To maintain this deferment, this activity must be supported. Without this deferment, key waste management facilities would be unable to operate.

Prepared by: DA Turner for
BA AUSTIN

Approved by: RE Gerton for
RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9070-ML-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0013
FACILITY: SOLID WASTE DISPOSAL
TITLE: SOLID WASTE DISPOSAL OPERATIONS (ML)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N):
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	11691	0	0	0	0	0	0	0
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	11691	0	0	0	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>DISPOSE OF 300,000 TO 500,000 CUBIC FEET OF LOW LEVEL WASTE ANNUALLY		
9/30/91	>EXAMINE APPROXIMATELY 1000 DRUMS ANNUALLY OF TRU WASTE		
9/30/91	>PROVIDE STORAGE FOR 20,000 TO 30,000 CUBIC FEET OF RADIOACTIVE MIXED WASTE ANNUALLY		
9/30/91	>PROVIDE STORAGE AND SHIPPING FOR 2000 TO 3000 DRUMS OF NON RADIOACTIVE HAZARDOUS WASTE ANNUALLY		
9/30/91	>REVISE/UPDATE HANFORD WASTE ACCEPTANCE CRITERIA ANNUALLY		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY1991 Bush Budget Guidance.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9070-ML-0

(1) Operates all Solid Waste Management Facilities required to safely treat, store, and dispose of transuranic (TRU) waste, low-level waste, radioactive-mixed waste, and non-radioactive hazardous waste.
(2) The bulk of the costs are associated with disposal activities. This includes certification of TRU waste for disposal in WIPP. These activities are required to support ongoing site programs and operate in a safe manner.
(3) This work is required to maintain safety and continuity of operations. This includes reimbursable costs from offsite waste generators and other Hanford contractors.
(4) Direct funding for these activities was assumed in FY 1991 target. The program is to continue to be funded by waste generators in all other years.

FUNDING BASIS:
Historical costs plus increases for regulatory compliance.

PRIORITY RATIONALE:
Priority 1. This activity is required to provide disposal f solid waste generated by Hanford programs in order to maintain safety and continuity of operations.

LEVEL OF CONFIDENCE RATIONALE:
High. Level of confidence in budget estimates is high based on past operations experience for these ongoing activities.

ACCOMPLISHMENTS TO DATE:
None

ACTIVITY ALTERNATIVES:
(1) Continue to assess generators for their waste disposal.
(2) Volume forecasts, used as a basis for developing rates, provided by generators have fluctuated significantly making accurate assessments difficult to establish. Not funding this activity would cause shutdown of Solid Waste disposal facilities.

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9080-MS-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0053
FACILITY: STORAGE
TITLE: 300 AREA RADIOACTIVE LIQUID WASTE FACILITY (PNL)(1MS)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, ST
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE *				
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	896	2345	2047	2500	2600	2600	2600	2600
CAPITAL EQ	0		45	39	150	25	25	25	25
GP PROJECTS					1400				
LINE ITEMS							2000		
TOTAL	0	896	2390	2086	4050	2625	4625	2625	2625

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>COLLECT AND TRANSFER LIQUID RADIOACTIVE WASTE FOR THE 300 AREA OPERATIONS-ANNUALLY		

== NARRATIVE ==

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

ACTIVITY DESCRIPTION: Operate the 300 Area radioactive liquid waste handling facility (340 Building) to collect liquid radioactive waste from the 300 Area operations and transfer to double-shell storage tanks in the 200 Areas. Provide engineering and maintenance support to the 340 facility.

Capital equipment requirements include a back up transfer pump for the transfer of liquid waste from tank to tank and to transport rail cars, and a whole body counter. The General Plant Projects are: Air

FY 92 ADS ID: 9080-MS-0

Monitoring Upgrade (FY 1992) to upgrade the capability to monitor and measure airborne concentrations within work areas and effluents from the facility; and a Ventilation System Upgrade (FY 1992) for the 340 B East and 340 A Buildings to protect workers and prevent contamination releases to the environment. The 340 B East system must be upgraded to provide an adequate negative pressure with respect to the outside and the 340 A requires a filtered ventilation system. The FY 1994 Line Item for Dangerous Waste Tanks will provide secondary containment, leak detection capability and upgrade of equipment to comply with State of Washington Dangerous Tank Regulations (Chapter 173-303).

FUNDING BASIS:
Operating estimates are based on previous year's actual operating costs for the facility with the addition of costs for facility upgrades and additional personnel required to support the TSA and the Department of Energy Tank Farm Technical Safety Appraisal. The estimate for the additional scope is based on current rates and equipment costs plus the application of escalation factors applied year to year in accordance with objectives identified in the long-range plans. Costs for FY 1990 are assessed to PNL overhead budgets.

Increase in funding from FY 1991 Target to Required reflects work required to correct findings of the operational assessment performed in fiscal year 1989. This assessment identified a need for increased management overview, establishment of a job control system, update of the as-built drawings, establishment and/or replenishment of critical facility spare parts, and issuance of a compliance plan for storage tank integrity assessments and testing to meet State of Washington Administrative Code (WAC) Chapter 173-303, Dangerous Waste Regulations. Work to support completion of the operational assessment findings, as-builts, the Safety Assessment Document, and functional design criteria for projects will be ongoing through FY 1996.

The impact of receiving 1991 Bush Budget Guidance would result in the deferral of the following tasks to outyears: hiring of project engineer for increased management overview of facility, implementation of job control system, completion of facility as-builts, and delay in procurement of critical spare parts.

PRIORITY RATIONALE: Priority 1 was selected on the basis that the 340 Building is an ongoing activity required to maintain safe conditions for the collection of radioactive liquid waste in a central location in the 300 area rather than several collection/storage areas. If terminated, limited operations of all 300 Area laboratories associated with research programs that generate liquid radioactive waste would result.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9080-MS-0

LEVEL OF CONFIDENCE RATIONALE: Medium confidence level based on previous year's actual experience and Westinghouse Hanford Company standard rates and escalation applied to work scope and staff.

ACCOMPLISHMENTS TO DATE:
- o Seventeen operating procedures for the 300 Area Waste Services were generated and approved to meet operational assessment deficiency findings.
- o Several radioactive liquid waste process valves were repaired and made operational.
- o Completed tank integrity checklists of six above ground tanks as an initial step toward compliance to WAC 173-303, Dangerous Waste Regulations.
- o Segregated sixty-eight boxes of potentially mixed radioactive hazardous waste into twelve drums of radioactive mixed hazardous waste and fifty-five fiberboard boxes of radioactive waste for shipment to 200 Area storage/disposal facilities.
- o During FY 1989 shipped 63,014 gallons of radioactive liquid waste to the 200 Area storage tanks.

ACTIVITY ALTERNATIVES: Closure of the 340 Building. The impact of this alternative could adversely affect the core sample analysis of the Single Shell Tank Waste Characterization required by the Tri-Party Agreement. A by-product of the core sample analysis conducted by Pacific Northwest Laboratory (PNL) is radioactive liquid waste which is sent directly from the laboratories to the 340 Building. Closure of the facility would eliminate the most cost effective method of disposal for the radioactive liquid waste generated. Closure of facility would impact continuity of operations of the PNL laboratories. Without funding, we would continue to be out of compliance with state regulations on tanks used in this facility for storage of hazardous wastes.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	92G-GFW-XXX	AIR MONITORING UPGRADE	200	91967
	92G-GFW-XXX	VENTILATION SYSTEM UPGRADE	1200	91968
LINE ITEMS				
	94L-GFW-XXX	DANGEROUS WASTE TANKS UPGRADES	2000	91969

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9080-MS-0

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9090-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0156
FACILITY: CONTINUITY OF OPERATIONS
TITLE: WASTE MANAGEMENT GENERAL SUPPORT
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	335	250	250	218	250	250	250	250	250
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	335	250	250	218	250	250	250	250	250

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY1991 Bush Budget Guidance.

The Hanford Filter Test Facility, managed by the Hanford Environmental Health Foundation, is the DOE-sponsored High Efficiency Filter Quality Assurance Test Facility for DOE contractors located in the far western states. Similar DOE-funded facilities are located at Rocky Flats, CO, and Oak Ridge, TN. The purpose of the Filter Test Facility is to assure the quality, integrity, and performance of high efficiency particulate air (HEPA) filters and respirator filters purchased by DOE contractors.

A challenge test aerosol is used for the efficiency test to assure that the filters are capable of removing 99.97 percent of highly toxic

FY 92 ADS ID: 9090-WM-0

particulates from contaminated air streams or from the general atmosphere in which personnel work. Visual inspections are made of each filter to assure filter construction conforms to specifications. Consultation in HEPA filter systems and technology is provided to DOE designers, users, and purchasers.

In addition, in-place testing on HEPA filtered ventilation systems is performed for DOE contractors, upon request, to determine the efficiency of the filter systems with filters installed. The Hanford Test Facility participates in "round-robin" HEPA filter testing comparison programs to assure uniform filter test station operating procedures and policies.

FUNDING BASIS:
Cost estimates are based on historical operation of the Filter Test Facility.

PRIORITY RATIONALE:
This activity is considered Priority 1 due to the need to maintain environmental control and worker protection.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high based on the past years' experience of performing these tasks.

ACCOMPLISHMENTS TO DATE:

ACTIVITY ALTERNATIVES:
Send Western States filters to one of the other filter test stations. This alternative could cause extensive program delays, increased costs, and personnel risk due to the need to transport filters offsite for testing.

Prepared by: P.J. Morehouse

Approved by: RE GERTON 5-21-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9091-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0329
FACILITY: WASTE MGMT AIR EMISSION SOURCES
TITLE: AIR PERMITTING/COMPLIANCE
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: TPA MS: N
REGULATORY DRIVERS: CAA
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N):
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		0	0	0	0				
CAPITAL EQ		0	0	0	0	1770	1770	1770	1770
GP PROJECTS						250	250	250	250
LINE ITEMS									
TOTAL	0	0	0	0	0	2020	2020	2020	2020

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/93	>ISSUE ANNUAL REPORT		
6/30/94	>ISSUE ANNUAL REPORT		
6/30/95	>ISSUE ANNUAL REPORT		
6/30/96	>ISSUE ANNUAL REPORT		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Subpart H of 40 CFR 61 is a new regulation issued as a final rule on December 15, 1989, and will require additional analyses and measurements for point source radioactive air emissions. By March 15, 1990, stacks, vents, pipes and other point source releases are to be continuously monitored or sampled in accordance with various requirements, or documentation must be in place to show that potential emissions are excluded from such measurement requirements. DOE-HQ has entered into negotiations with EPA. This new regulation requires installation of continuous air samplers or monitors on every waste management vent line including valve pit vents. Impacted waste management facilities include

tank farm complex, B Plant, WESF, etc.

Each facility operator must first estimate a maximum annual emission from each point source assuming "all pollution control equipment did not exist, but the facility operations were otherwise normal." An EPA-approved method for dose modeling (AIRDOS-EPA, AIRDOS-PC, or CAP-88) must be used to estimate the resultant off-site annual dose. If this dose is less than 0.1 mrem/yr effective dose equivalent (EDE). then only periodic measurements are required to verify the low emissions.

For all emission measurements a quality assurance program must be implemented that meets the EPA performance requirements specified in Appendix B, Method 114 of 40 CFR 61.

The new Subpart H also includes requirements for detailed annual reporting of emissions by June 30, 1991. Therefore, all affected facilities must begin the measurement, monitoring and/or sampling activities specified above by March 15, 1990, to collect the necessary emission data.

There are a significant number of very minor vents and pipes that do not have continuous air monitors or samplers installed. Depending upon the developing interpretation of which level of emissions qualifies as a point source, there may be up to hundreds of point sources requiring analysis and the potential need for flow measurement and either continuous monitoring or sampling.

FY 1991 and FY 1992 funding for the installation, startup and transition of continuous sampling air monitoring systems is presently on ADS 9092-WM -0. The post Fy 1992 funding addresses laboratory analysis, systems maintenance, replacement, monitoring, and reporting costs. This activity coincides with similar monitoring at chemical processing and decontamination and decommissioning facilities (ADS's 423-KE-0 and 6156-U3-0).

FUNDING BASIS:
Expert opinion, consultation with regulators based on reviews of the draft and final regulations and a rough estimate of the number of air monitors needed. No detailed survey of vents has been performed. Hence these costs are a rough order to magnitude.

PRIORITY RATIONALE:
This activity ensures ongoing compliance with NESHAPS (Clean Air Act) requirements. (This was a priority 4 last year [1991 ADS RL-0177 and RI-0329] as the rule was not finalized.)

LEVEL OF CONFIDENCE RATIONALE:
Confidence is low as these are preliminary engineering scoping estimates.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9091-WM-0

The cost and schedule are uncertain at this time until negotiations, a detailed field survey, and offsite dose analysis are completed. Once this is done, a detailed cost schedule will be prepared.

ACCOMPLISHMENTS TO DATE:
New activity. Regulation just finalized.

ACTIVITY ALTERNATIVES:
(1) Change legislation (unlikely as DOE tried) or (2) violate Clean Air Act regulations.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	W-XXX	AIR EMISSION UPGRADES		92110

Prepared by: DA Turner for
BA AUSTIN

Approved by: E Mettlejohn for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9093-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0190
FACILITY: WASTE MANAGEMENT FACILITIES
TITLE: FACILITY REGULATORY COMPLIANCE ASSESSMENTS
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CAA, CWA
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		600	0	0	600	600	600	600	600
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	600	0	0	600	600	600	600	600

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS

>

== NARRATIVE ==

"Per DOE-HQ direction, FY 1991 funding requests for Priority 3 and 4 ADSs that are not required to meet Compliance Agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets."

ACTIVITY DESCRIPTION:
Six full time people and administrative support are needed to prepare for external assessments (EPA, GAO, IG, and State) as well as internal audits and tiger teams. Facility assessments against proposed and promulgated regulations will continue to the degree necessary to assure facilities are being operated and maintained in accordance with current regulations. Waste Management facilities include B Plant/WESF 242 Evaporator, tank farm complexes, waste storage facilities, etc.. Facility assessments against all existing requirements have not been completed (e.g.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9093-WM-0

assessment of the tank system and RCRA generator requirements). Corrective actions are usually identified in the operating contractor's facility compliance assessments and annual EPA inspections. As these assessments and inspections are performed, newly identified corrective actions have historically been found requiring incremental resources to achieve compliance. The number of assessments, audits, tiger teams, corrective actions and magnitude of associated resource requirements are variable depending upon frequency of regulatory changes and resources available to incorporate these changes into operating procedures. These activities have historically been highest in the "storage" of hazardous or regulated materials.

FUNDING BASIS:
Expert opinion, rough approximation. Approximately six staff full time and support staff were assumed based on present work scope.

PRIORITY RATIONALE:
Internal and external facility assessments against proposed and promulgated regulations is the first step in the management process of maintaining operational practices in a compliant state with proper planning for out year activities to satisfy requirements.

LEVEL OF CONFIDENCE RATIONALE:
There is no proven accurate technique to forecast number of assessment teams per fiscal year, new regulatory requirements and their associated implementation schedule. The estimate is based upon recent experience and observations.

ACCOMPLISHMENTS TO DATE:
Preparation for the annual EPA region 10 inspection (August 1989) resulted in minimal EPA findings. Action plans have been developed and are being implemented to respond to DOE-RL and internal audits regarding environmental compliance.

ACTIVITY ALTERNATIVES:
Will likely be determined as scope is better defined; change in legislation is unlikely.

Prepared by: D Turner for BAA
BA AUSTIN

Approved by: W Mettenet For
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9094-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: DISPOSAL
TITLE: PUREX LIQUID EFFLUENT TREATMENT HEC C-018
PRIORITY: 2 NEPA: N/D
B&R CODE: 39-EW-30-10-8 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1990 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING									
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS			1500	1310	10000	3600			
TOTAL	0	0	1500	1310	10000	3600	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/92	>CONSTRUCTION COMPLETE IN 3RD QTR FY 1992 (SUPPORTS M-17-00)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestone and the following narrative are based on receiving FY1991 Bush Budget Guidance.

The facility will be designed to handle both the PUREX and PDD and ASD streams. It will be capable of treating the effluents such that the liquid discharged to the environment meets EPA Drinking Water Standards (DWS) and the amount of waste requiring final disposal is minimized.

DOE-RL commitments, DOE Order 5820.2 and 5480.1A, EPA regulations, State of Washington regulations.

SD-WM-TI-232, "Alternative to Soil Column Disposal of Hanford Liquid

FY 92 ADS ID: 9094-WM-0

Effluents" and Congressional response.

ASD stream may be eliminated if PFM is implemented prior to January 1, 1995.

B/A from Hanford Environmental Compliance (HEC) Subprojects in FY 1990 and FY 1991 is being used to support 242-A/PUREX storage, treatment and disposal (ADS 9097) funding requirements. Incremental HEC 1992 funding is being requested to complete the HEC subprojects involved. Affected subprojects and ADS are: W-017, 9062-MJ; W-020, 9111-1B; B-680, 9095-WM; C-031, 9096-WM; C-018, 9094-WM.

FUNDING BASIS:
Included in FY 1991 Budget submission. Based on cost estimate inputs per conceptual design report. Funding requirements are time-phased to support construction schedules as part of HEC validated projects (89-D-172) and support compliance with DOE Order 5820.2.

PRIORITY RATIONALE:
Placed as priority 2 as validated HEC subproject referencing TPA.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is high because this is a validated HEC subproject.

ACCOMPLISHMENTS TO DATE:

ACTIVITY ALTERNATIVES:
"Alternatives to Soil Column Disposal of Hanford Site Liquid Effluents" (SD-WM-TI-232) issued in 1986 was prepared in response to DOE Order 5820.2 which contains a requirement to replace disposal operations which release liquid low-level waste (LLW) directly to the environment. The report considered 28 liquid discharges in the 100, 200, 300, and 400 Areas of the Hanford Site and prioritized them on the basis of (1) the need or potential benefit resulting from implementing an alternative disposal operation and (2) its cost. The PDD stream was designated because of radionuclide content for phase one implementation in the DOE congressional response. The ASD has been included in scope as a contingency to process facility modifications not coming on line prior to January 1, 1995. It is therefore recommended that an effluent facility be provided.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	91L-GFC-018	HEC/ PUREX LIQUID EFFL TRTMT (89-D-172)	11200	91145

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9094-WM-0

Prepared by: BA Austin for
BA AUSTIN

Approved by: RE Gerton 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9095-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0001
FACILITY: DISPOSAL
TITLE: PFP LIQUID LOW LEVEL SYSTEM, HEC B-680
PRIORITY: 2 NEPA: N/D
B&R CODE: 39-EW-30-10-8 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-17
REGULATORY DRIVERS: DOE, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE		
	1990 APPROP	1990 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING									
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	1478		4000	3492	4000	300			
TOTAL	1478	0	4000	3492	4000	300	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/92	>CONSTRUCTION COMPLETE IN 4TH QTR FY 1992 (SUPPORTS M-17-00)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestone and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Due to insufficient funding at the FY1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

This subproject will provide a new facility which will prevent potential radionuclides and chemical constituents from discharging to the PFP chemical sewer and subsequently to the Z-20 crib in 200 West Area. A closed loop process cooling system will be installed to prevent discharge of contaminated cooling water to the crib.

FY 92 ADS ID: 9095-WM-0

The 30 feet by 94 feet facility will include ion exchange columns which will be used to remove contaminants from the PFP drain system effluent. Lag storage, sampling and recycle capability will be provided to assure that effluent meets discharge criteria prior to return to the soil column. The closed loop system will consist of a primary and secondary closed loop utilizing intermediate heat exchangers and cooling towers with zero discharge to the chemical sewer.

The purpose of this project is to prevent the potential discharge of radionuclides and chemical constituents to the soil column from the PFP sewer. A pretreatment system is being installed as an integral part of the LLWTF to protect the effectiveness of the ion exchange media which removes radionuclides from the waste stream. The pretreatment system will remove any chemical spills to the PFP sink and floor drains which discharge to the chemical sewer. These spills are non-routine, extremely infrequent, and their treatment is incidental to the primary purpose of removing radionuclides. Administrative and engineering controls are currently in place to assure that the discharge of chemical spills are prevented. On this basis, the requirement for a RCRA permit for operation of the LLWTF is not anticipated.

B/A from Hanford Environmental Compliance (HEC) Subprojects in FY 1990 and FY 1991 is being used to support 242-A/PUREX storage, treatment and disposal (ADS 9097) funding requirements. Incremental HEC 1992 funding is being requested to complete the HEC subprojects involved. Affected subprojects and ADS are: W-017, 9062-MJ; W-020, 9111-IB; B-680, 9095-WM; C-031, 9096-WM; C-018, 9094-WM.

FUNDING BASIS:
Funding is based on cost estimates as a result of conceptual design reports. This subproject is part of validated HEC Project (89-D-172). Funding is time-phased to support completion of construction in the third quarter of 1992 and supports overall accomplishment of TPA milestone M-17-00.

PRIORITY RATIONALE:
Placed as priority 2 as validated HEC subproject referencing TPA.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is high because this is a validated HEC subproject.

ACCOMPLISHMENTS TO DATE:

ACTIVITY ALTERNATIVES:
The 241-Z Waste Facility has been in service 40 years. Two corrosive leak failures (one on a 4300 gallon tank and one on connecting drain piping) have eliminated equipment redundancies and operating flexibility. Nondestructive examinations of remaining tanks indicate corrosive

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FY 92 ADS ID: 9095-WM-0

deterioration as well. Another tank or drain line failure would require shut down of the PFP processes from three to six months until repairs are completed. The 241-Z facility is a vital component necessary for neutralizing PFP waste streams generated during processing of Defense Production Plutonium.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	90L-GFB-680	HEC/ PFP LIQUID LLW SYSTEM MOD(89-D-172)	5800	91143

Prepared by: RD Intorf for DBC DAT for BAA
DB CARTMELL

Approved by: [signature] for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9096-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0001
FACILITY: DISPOSAL
TITLE: PFP EFFLUENT TREATMENT, HEC C-031
PRIORITY: 2 NEPA: N/D
B&R CODE: 39-EW-30-10-8 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, RCRA, ST
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING									
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	3152		8100	7071	8100	6700			
TOTAL	3152	0	8100	7071	8100	6700	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY1991 Bush Budget Guidance.

The purpose of this project is to: 1) provide a Transuranic Extraction (TRUEX) process for removing plutonium and americium from PFP liquid effluents that are transferred to the tank farms so that residual concentrations are below those defined for transuranic waste, i.e., the alpha activity level is less than 100 nanocuries per gram; 2) extend the operational life of the 241-Z facility through the year 2001; 3) improve waste stream throughput capacity; and 4) upgrade the facility to comply with the U.S. Department of Energy requirements for liquid effluent disposal (DOE Order 6430.1A, and WAC 173-303-640).

FY 92 ADS ID: 9096-WM-0

The TRUEX process will reduce the final disposal cost of the PFP waste (low-level radioactive liquid wastes compared to TRU liquid wastes) approximately $70,000,000, depending upon future missions at PFP; and recover plutonium from PFP waste streams which enhances compliance with the requirements of DOE Order 5820.2, Radioactive Waste Management, Chapter II.3.a. The TRUEX process will also result in reduction of a secondary condensate stream (resulting from treatment by evaporation) requiring treatment before disposal, consistent with waste minimization guidelines of RCRA and Washington Administrative Code 173-303. The savings from this process will be reduced if the implementation date is extended.

The TRUEX process will chemically and mechanically remove plutonium, americium, and other solids from the PFP waste streams prior to neutralization before disposal to the tank farms or as low level waste grout. Lowering the radioactivity of these waste streams to less than transuranic limits is significantly less expensive than disposing of it as TRU waste.

B/A from Hanford Environmental Compliance (HEC) Subprojects in FY 1990 and FY 1991 is being used to support 242-A/Purex storage, treatment and disposal (ADS 9097) funding requirements. Incremental HEC 1992 funding is being requested to complete the HEC subprojects involved. Affected subprojects and ADS #'s are:

W-017	9062-MJ
W-020	9111-1B
B-680	9095-WM
C-031	9096-WM
C-018	9094-WM

FUNDING BASIS:
Included in FY 1991 Budget submission. Based on cost estimate inputs per conceptual design report. Funding requirements are time-phased to support construction schedules as part of HEC validated projects (89-D-172) and support compliance with DOE Order 5820.2.

PRIORITY RATIONALE:
Placed as priority 2 as validated HEC subproject.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is high because this is a validated HEC subproject.

ACCOMPLISHMENTS TO DATE:

ACTIVITY ALTERNATIVES:
The 241-Z Waste Facility has been in service 40 years. Two corrosion

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9096-WM-0

leak failures (one on a 4300 gallon tank and one on connecting drain piping) and recent nondestructive examinations indicate these tanks and supporting systems have reached end of service life. Another tank or drain line failure would greatly reduce the operating capacity of the PFP, including the Plutonium Reclamation Facility, require shut down of the facilities from three to six months until repairs were completed and prevent concurrent operation of the PRF and PFP. The 241-Z facility is a vital component necessary for neutralizing the PRF and PFP waste streams generated during processing of Defense Production Plutonium.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	90L-GEC-031	HEC/PFP LIQ EFFL TRTMT W/TRUEX(89-D-172)	18000	91144

Prepared by: RA Smith DOT for BAA
DB CARTMELL

Approved by: A Matthejust Fro
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9097-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0338
FACILITY: TREATMENT
TITLE: DST TREAT-242-A/PUREX REGULATED WASTE STG,TREAT,DISP (TPA)(WIT)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-17
REGULATORY DRIVERS: ORD, DOE, RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	2600	5200	12604	5238	2000				
CAPITAL EQ	1666								
GP PROJECTS									
LINE ITEMS									
TOTAL	4266	5200	12604	5238	2000	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/10/90	>COMPLETE PROCESS CONDENSATE INTERIM STORAGE BASIN		
6/30/92	>COMPLETE ACCELERATED TREATMENT AND DISPOSAL SYSTEM FOR PROCESS CONDENSATE (SUPPORTS M-17-00)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Due to insufficient funding at the FY1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

Provide liquid effluent retention facility (LERF) to allow 242-A Evaporator to restart December 1990. The evaporator process condensate will be stored in the LERF (four basins at 6.5M gallons) until treatment

and disposal facilities are ready in June 1992.

Reduce concentrations of radionuclides and chemicals in the Purex PDD (Process Distillate Discharge) and ASD (Ammonia Scrubber Distillate) streams.

Complete process condensate treatability studies and install treatment by third quarter FY 1992.

Accelerate process condensate disposal and complete by third quarter FY 1992.

242-A process condensate treatment and disposal was planned as a 1992 Line Item in the FY 1991 Rev. 1 Budget Submittal/FY 1991 Five-Year Plan (W-046H). However, the evaporator is currently shutdown. The process condensate cannot be discharged until alternative treatment and disposal is provided; regulatory relief from the Washington State Department of Ecology is not expected; the latest new treatment and disposal facilities can start is July 1992 due to limited LERF process condensate storage space. Funding identified on this ADS provides for completion of the accelerated treatment and disposal system by June 1992 and provides two year capacity interim storage of process condensate to relieve tank space while construction is underway.

The current TEC for this project is $52.6M to be funded as indicated above ($44.1M) and to also include HEC (89-D-172) subproject carryover funding of $8.7M (total $52.8M) from W-020 4.0, B-680 1.5 and C-031 3.2.

	B/A:	Carry	FY91	FY92	FY93	FY94	FY95	FY96
W-017	GWM Wells							
	Plan	6200	5000	800				
	Adj	6200	3000	2800				
W-020	Cathodic Protection							
	Plan	6700						
	Adj	2700		4000				
B-680	PFP Liquid LLW							
	Plan	1500	4000	300				
	Adj	0	1800	4000	300			
C-031	PFP Liquid Effluent Treatment w/TRUEX							
	Plan	3200	8100	6700				
	Adj	0	3500	8100	6700			
C-018	PUREX Liquid Effluent Treatment							
	Plan	0	1500	6100	3600			
	Adj	8700	10300	10000				

B/A from Hanford Environmental Compliance (HEC) Subprojects in FY 1990 and FY 1991 is being used to support 242-A/PUREX storage, treatment and disposal (ADS 9097) funding requirements. Incremental HEC FY 1992

funding is being requested to complete the HEC Subprojects involved. Affected subprojects and ADS numbers are: W-017, 9062-MJ; W-020, 9111-1B; B-680, 9095-WM; C-031, 9096-WM; C-018, 9094-WM.

The condensate could continue to be discharged to the unpermitted crib and the treatment and disposal baseline schedule - June 1995 completion - continued. This alternative could result in unlawful discharge of a hazardous waste to an unpermitted facility, if it is determined that the condensate contains listed hazardous waste; regulators do not support this alternative.

FUNDING BASIS:

	Cost Estimate ($ in Millions)			
	FY90	FY91	FY92	Total
Storage	14.5	4.0	0.0	18.5
Treatment	0.9	14.5	8.5	23.9
Disposal	0.4	4.4	1.4	6.2
Permitting/RPT/ Program Management	2.0	2.0	0.0	4.0
Total	17.8	24.9	9.9	52.6

Preliminary engineering evaluation estimate by onsite A/E. Market survey of treatment costs from vendors. Construction of similar-sized interim storage facility at 100-N area. Completed conceptual design report for the Liquid Effluent Retention Facility (LERF). The 1991 Required level supports the acceleration of the project from 1995 to 1991.

PRIORITY RATIONALE:
Priority 1 was chosen because delays in the availability of the Liquid Effluent Retention Facility (LERFs) (storage) for the 242-A Evaporator process condensate storage will require the following actions:

Eliminating waste segregation (in particular, neutralized cladding removal waste segregation). Sufficient DST space could be gained to extend the evaporator outage schedule by four months. This action would increase waste pretreatment requirements and impact pretreatment and disposal costs.

Eliminating aging/non-aging spare tanks. Sufficient DST space could be gained to extend the evaporator outage schedule by four months. This action would result in violating DOE Order 5820.2A requirements and would be a significant safety issue.

Deferring the PUREX Facility cleanout campaign until the evaporator is restarted. Sufficient DST space could be gained to extend the evaporator outage schedule by five months.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9097-WM-0

There are no viable alternatives to this activity. Storage for liquid radioactive waste depends on the 28 double-shell tanks. The 242-A evaporator concentrates dilute waste and reduces the tank volume required to store the waste until it can be grouted or vitrified. Without the 242-A evaporator, all DST's are projected to be full by December 1990.

LEVEL OF CONFIDENCE RATIONALE:
Level is Medium because project is on a fast track and some changes to scope or definitive design could result in change.

ACCOMPLISHMENTS TO DATE:

ACTIVITY ALTERNATIVES:
Evaporator operation is required for waste management. Regulatory approval is required for evaporator restart. The 242-A Evaporator supports tank farm and waste management operations to meet the Tri-Party Agreement's goals for single shell tank (SST) stabilization including saltwell pumping, grout, waste pretreatment, waste characterization, and T Plant decontamination. An analysis of DST space indicates that available tank space will be full by December 1990. Consequently, the 242-A Evaporator must restart by December 1990 to support waste management and environmental restoration activities at the Hanford Site.

Prepared by: D. E. Kelley
for GJ MISKHO

Approved by: Authorized for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9098-WM-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: CONTINUITY OF OPERATIONS
TITLE: MISC. WASTE MANAGEMENT GPPs, CWOs, AND CAPITAL EQUIPMENT
PRIORITY: 1 NEPA: N/D
B&R CODE: 39-EW-30-10-1 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990	------- 1991 -------			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING									
CAPITAL EQ					1500	1500	1500	1500	1500
GP PROJECTS	316	0	613	0	500	1000	1000	1000	1000
LINE ITEMS									
TOTAL	316	0	613	0	2000	2500	2500	2500	2500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY 1991 Bush Budget Guidance.

Funds capital work orders supporting the Waste Management Program. Specific projects identified upon completion of the prioritization process and as needs become apparent. Examples of this type of project are: Capital Work Orders for gas cylinder storage dock (required by Safety): $100K; hazardous waste storage buildings: $150K; B Plant compressor substation: $300K; lighting upgrades: $100K; HVAC upgrades, shielding, valve upgrades, etc; GPPs which incur additional scope can fund work from this reserve or a separate CWO can fund additional but related work. $400K in 1990 represents waste management share of Landlord GPP 89G-GFL-052 (200E Training Facility) which is

FY 92 ADS ID: 9098-WM-0

joint funded with Landlord and Chemical Processing.

Also funds capital equipment supporting the Waste Management program. Some specific items will be identified upon completion of the prioritization process and as needs become apparent. However, many specific items have already been identified in support of the Training Program Accreditation Plan, per DOE Order 5480.18, Accreditation of Performance-Based Training programs for DOE Nuclear Facilities; and Heavy Equipment Replacements, per Federal Property Management Rules and Regulations. Examples of such items include: Process Control Simulator, $250K; Closed Cycle Vent Simulator, $60K; File Servers, $60K; Maintenance Work Benches, $90K; Maintenance Mock-Ups, $75K; Grout Simulator, $200K; 242-A Evaporator Simulator, $200K; Computer-Automated Surveillance System Simulator, $200K; Front Loader, $104K; Water Wagon, $182K; Truck Cranes, $48K; Scrapers, $536K; and a Wheel Tractor, $104K.

FUNDING BASIS:
Based on historical costs for capital work orders (< $300K each).

For Training Equipment, based on cost estimates from the commerical nuclear industry's costs to accredit their training programs. For Heavy Equipment replacements, based on cost-to-replace estimates obtained from vendors.

PRIORITY RATIONALE:
Priority 1. These GPP/CWO projects and capital equipment items are high priority, but have not been identified on individual ADSs. Can be of emergency nature. May be required to support ongoing safe operations or to allow completion of related construction efforts.

LEVEL OF CONFIDENCE RATIONALE:
Considered medium, based on historical costs. Capital work order activity of this nature cannot always be anticipated. For Heavy Equipment Replacements, based on the replacement criteria as described in the Federal Property Management Rules and Regulations. For Training Equipment, as described in DOE Order 5480.18, Accrediation of Performance-Based Training Programs for DOE Nuclear Facilities.

ACCOMPLISHMENTS TO DATE:
N/A

ACTIVITY ALTERNATIVES:
Alternative is to defer replacement of heavy equipment and individual repair/replacement work to subsequent years while incurring any operational and/or safety risks and deficiencies. Defer accreditation of Hanford Nuclear Training Program.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9098-WM-0

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	W-XXX	GPP RESERVE		92109

Prepared by: _____
BA AUSTIN

Approved by: _____
RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9099-XX-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: CONTINUITY OF OPERATIONS
TITLE: HANFORD COMPUTER REPLACEMENT
PRIORITY: 3 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS:
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING			0	0	1620	2640	2640	2640	2640
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	1620	2640	2640	2640	2640

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
7/31/90	>SOLICITATION RELEASED		
1/31/91	>CONTRACT AWARD		
4/30/91	>INSTALLATION		
7/31/91	>OPERATIONAL		

== NARRATIVE ==

ACTIVITY DESCRIPTION: FY 1991 LSIS REPLACEMENT COMPUTER
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Per DOE-HQ direction FY 1991 funding request for Priority 3 and 4 ADSs that are not required to meet compliance agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets.

Acquire, install and implement additional computing resources to support the forecasted IBM compatible Large Scale Information System

computing environment workload requirements for FY 1991 and out years.

This project will acquire a newer technology processor with increased capacity to replace the existing LSIS processors (HDS AS/9060 and AS/9080). The new LSIS Replacement Computer will utilize the peripheral subsystems (telecommunications; hardcopy output including impact and laser printers, plotters, microfiche; disk and tape storage).

FUNDING BASIS: Lease to Ownership, most likely over a 36 or 48 month time period, with operating dollars.

The following cost information reflects the incremental costs to acquire and install the FY 1991 LSIS Replacement Computer.

Key cost factors for both models include:

- o $ 6,000,000 for a used (certified as new) IBM 3090 Model 500S or equivalent CPU, Lease to Ownership at month 37.
- o $ 300,000 to upgrade the licenses for the current LSIS software environment to a Group 50 processor, and provide interim copies of software on current LSIS processors
- o $ 25,000 for relocation of equipment within the Data Center
- o 12 % return on investment for the vendor providing the equipment

PRIORITY RATIONALE: Priority Level 3.

The FY 1991 LSIS Replacement Computer is required to provide the support the continued growth of administrative and operational management applications and the development of additional applications to enhance Hanford's ability to continue to improve the safety, security, and the efficiency and cost effectiveness of operations. The increased computing resources are required for DOE-RL and the Hanford contractors to meet the Government's administrative and operational reporting requirements in a timely and effective manner.

LEVEL OF CONFIDENCE OF RATIONALE:

Low to Medium. These preliminary cost estimates reflect only the incremental costs associated with the acquisition and installation of the new LSIS processor resources. The estimated acquisition

FY 92 ADS ID: 9099-XX-0

cost for the FY 1991 LSIS Replacement Computer is based on an anticipated maturation of the IBM 3090 or equivalent computer technology and a high level of competitiveness for the FY 1991 LSIS Replacement computer procurement. Both of these factors are outside the control of WHC.

ACCOMPLISHMENTS TO DATE:
Not applicable.

ACTIVITY ALTERNATIVES:

- Acquire No Additional Computing Resources. Impact: Additional computing resources will be required for this site to accomplish current and future programs. Without additional computing resources, Hanford will not be able to continue to improve the planning, management, and reporting of the administrative and programmatic operations.

- No Additional Mainframe Computing Resources: Redistribute some of existing LSIS applications to process on micro-computers, workstations, file server and/or departmental computing environments. Impact: Increased Costs, with costs born directly by acquiring organizations. Additional (non-mainframe) computing and peripheral resources would have to be acquired. Although in smaller increments, the total cost of hardware and basic software could be significant. In addition, there would be the cost for redeveloping the existing LSIS applications to the different processing platforms. Further, there will be the indirect cost from this choice as a result of pre-delimiting the technical solution options available to support future applications. Meanwhile, the operating costs for the old existing LSIS processors will continue to escalate over time.

- Interim Computing Resources: Acquire additional computing resources to supplement (for an interim period) the current LSIS computing environment. May possibly defer acquisition of LSIS Replacement Computer. Impact: May result in overall increased life cycle cost, but could possibly reduce the incremental costs for FY 1991 and FY 1992.

Prepared by: D A Turner for
B A AUSTIN

Approved by: W Gerton for
RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9100-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: STORAGE
TITLE: DST STORAGE OPERATIONS ASSURANCES (W1B)
PRIORITY: 3
B&R CODE: EW-30-10-30
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0019
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	1525	0	0	1750	1775	1625	2290	6190
CAPITAL EQ									
GP PROJECTS					1150	1150			
LINE ITEMS									15000
TOTAL	0	1525	0	0	2900	2925	1625	2290	21190

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>COMPLETE FY92 GPP CDR		
2/29/92	>COMPLETE FY93 GPP CDR		
9/30/92	>IMPLEMENT FIFTH (TRAINING) SHIFT		
9/30/92	>IMPLEMENT JOB CONTROL SYSTEM		
2/28/94	>COMPLETE FY96 LI CDRs		
1/31/96	>START FY96 LI DEF. DESIGNS		

== NARRATIVE ==

ACTIVITY DESCRIPTION:

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environment/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $1525 K.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9100-1B-0

This activity provides production control and training enhancements to support DST storage operations activities (see ADS 9103 for DST treatment portion). It supports implementation of the Job Control System which automatically tracks ongoing work (DOE Order 4330.1). The Fifth Tank Farm Operations Shift crew is added to meet training requirements of DOE Orders 5480.5 and 5480.18. DOE Order 5480.18 requires that plant forces be accredited using operator/supervisor job-analysis based training, and outlines the requirements for lesson planning, instructional materials and examinations, the use of mockups and walkthroughs for job certification, and specifies examination frequencies. Currently, 200 Area Tank Farm Operations does not have adequate operating staff to release personnel so they can attend required training. The general plant projects provide enlarged operating headquarters for the increased staff. The FY 1996 line item installs a permanent annulus inspection system in the 28 DSTs (96LI TEC $35 M) and changes the DST ventilation and sampling systems (96LI TEC $75 M) to meet retrieval and expanding environmental sampling requirements (improved de-entrainment, ammonia, tritium ruthenium sampling).

At present the DST primary tank wall inspection is limited to still photograph of the parts directly under the annulus openings. Other areas of the primary tank wall cannot be reached for inspection as required by RCRA. The line item would install a permanent inspection system with portable monitoring package to completely check the tank wall for signs of leaks.

The DST ventilation systems will be changed to meet the requirements of the 2 or 4-pump waste retrieval systems. When operating the waste retrieval pumps will heat the tank contents to near boiling, and result in significant vapor carryover into the exhaust system. The existing exhaust systems were not designed for this kind of operation; new de-entrainment, condensate collection and drainage, and control instrumentation will be installed. Effluent monitoring will be expanded to a broader range of routinely monitored components including tritium, ruthenium, ammonia.

FUNDING BASIS:
The funding bases are preliminary estimates and work scope planning documents generated in discussions with Operations, Engineering and Projects personnel. The Job Control System implementation and Fifth (training) Shift estimates are based on an implementation plan and size of the Fifth Shift to achieve accreditation.

The FY 1992 and FY 1993 GPP's are based on similar-sized facilities already constructed on-site; the LI's are rough-order-of-magnitude that will be refined with engineering studies in FY 1992.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9100-1B-0

PRIORITY RATIONALE:
This activity is Priority 3 because it enhances current practices in the Tank Farms which would reduce risks and costs.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the near-term tasks/schedules is medium. Job Control and Fifth (training) Shift estimates are based on planning documentation. The GPP's are based on similar facilities constructed on-site. Confidence in the longer-range LI's for DST annulus inspection and ventilation improvements is low, but will improve with completion of engineering definition studies in FY 1992.

ACCOMPLISHMENTS TO-DATE:
The planning for implementation of the Fifth shift has been completed and the job control implementation plan has been completed. The basis for design of the waste retrieval ventilation system was completed in FY 1989.

ACTIVITY ALTERNATIVES:
These tasks assure disciplined work control in Tank Farms and continuing compliance with training requirements. If not funded, a steadily decreasing level of plant operability is expected, through incomplete job planning and tracking, less time will be spent in the field due to expanding classroom training requirements, and delays in meeting the new DOE accreditation order.

The two LI's assure inspection of the primary tank containment system of the DSTs can be made, and that operation of the DST ventilation systems will conform with expected changes in operation (waste retrieval) and environmental regulations. The alternative is postponement of the retrieval and inspection features necessary to assure mission objectives are met as currently scheduled.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	92G-GFW-116	OPS SUPPORT FAC(EAST)(272-AW EXPANSION)	1150	90295
	93G-GFW-115	OPS SUPPORT FAC(WEST)(272-WA EXPANSION)	1150	90296
LINE ITEMS				
	96L-GFW-129	DST ANNULUS INSPECTION SYSTEM	35000	90297
	96L-GFW-130	DST EXHAUST ENHANCED CLEANUP	75000	90298

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9100-1B-0

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton 5-9-90
RE GERTON

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9101-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0322,0181
FACILITY: STORAGE
TITLE: DST STORAGE OPERABILITY RESTORATION (W1B)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE *				
	1990 APPROP	1990 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	3900	0	0	5750	5250	3650	6450	12450
CAPITAL EQ			0	0	780	480	480	480	480
GP PROJECTS									
LINE ITEMS									20000
TOTAL	0	3900	0	0	6530	5730	4130	6930	32930

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/94	>ISSUE CDRs FOR FY96 LINE ITEMS		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environment/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $5390 K.

Renovate, modify and improve DST farm facilities to restore original performance capabilities and extend useful operating lifetimes for waste storage. Eliminate backlog of maintenance work that has accumulated from manpower shortages, inability to obtain spare parts for broken obsolete equipment, and previous years' budget shortfalls.

FY 92 ADS ID: 9101-1B-0

Remove or stabilize surface contamination to achieve "clean farm" status in all DST farms. Update essential drawings to document actual field configurations including the 242-A Evaporator, the 701-A Aging Waste Exhaust System, the 200E/200W Areas master pump shutdown system, and the Computer Automated Surveillance System (CASS). Prepare engineering studies, design criteria, environmental evaluations, safety evaluations, and appropriate permit applications for future capital project modifications.

These include: (1) replacement of single-contained waste transfer lines (FY96 LI TEC $100M) with double-contained RCRA compliant lines. Continued use of non-compliant lines in the interim period is subject to regulatory discretion; (2) safety system improvements (FY97 LI TEC $100M) to the utility systems (double-ended electrical feed and increased power, emergency power modernization, partial looping of cooling water to reduce discharge volume) and to environmental systems (confinement structures for outdoor HEPA exhaust filters, exhaust fans, their controls and monitoring); (3) a double-shell tank farm (FY96 LI TEC $60M) dedicated to interim storage of recovered single-shell tank waste awaiting pretreatment, and pretreated double-shell and single-shell waste awaiting vitrification or grouting. Current double-shell tank space projections indicate additional tank space is not required to meet the existing Tri-Party Agreement milestones. However, the projections do not include contingencies for the annual volume increment that would be generated if liquid-based retrieval is utilized for single-shell tank closure.

FUNDING BASIS:
The funding basis is evaluation of the existing backlog of work orders, preliminary cost estimates and technical discussions with Operations and Engineering personnel. Backlog reduction is completed in FY 1993 and an increased level of maintenance activities is continued to prevent new accumulation of backlogged work.

PRIORITY RATIONALE:
The operability restoration program is designated Priority 3 based on age-related deterioration of operating capabilities. The backlog of work orders must be reduced, and facility maintenance must be increased to maintain environmental controls and worker protection within DOE and contractor requirements.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is considered medium based on the understanding of tasks in the work order backlog and historical costs of completing similar tasks. Capital project costs are ROM estimates based on recent projects for replacing ventilation equipment, refurbishing the 242-A Evaporator, and constructing DST farms.

ACCOMPLISHMENTS TO-DATE:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9101-1B-0

Due to the lack of funding, there are no significant accomplishments to-date. Potential major upgrades have been identified in the Capital Asset Management Plan.

ACTIVITY ALTERNATIVES:
The alternative is continued derating of existing facilities' performance. Maintenance costs, lost operating time, administrative controls, worker safety risks and the potential for environmental releases are expected to increase.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	96L-GFW-133	DST CONCRETE ENCASEMENT REPLACEMENT	100000	90302
	96L-GFW-134	DST SAFETY SYSTEMS LIFE EXTENSION	100000	90300
	97L-GFW-131	DST RETRIEVAL TANK FARMS	60000	90301

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton for 5-9-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9103-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0019
FACILITY: TREATMENT
TITLE: DST TREATMENT OPERATIONS ASSURANCE (W1B)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	905	0	0	1010	1060	910	2810	4810
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									10000
TOTAL	0	905	0	0	1010	1060	910	2810	14810

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>IMPLEMENT FIFTH (TRAINING) SHIFT		
9/30/91	>IMPLEMENT JOB CONTROL SYSTEM		
2/01/94	>COMPLETE FY96 LI CDR		
1/31/96	>START FY96 LI DEF. DESIGN		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environment/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $905 K.

This activity provides production control and training enhancements to support DST treatment operations activities (see ADS 9100 for DST storage

FY 92 ADS ID: 9103-1B-0

portion). It supports implementation of the Job Control System which automatically tracks ongoing work (DOE Order 4330.1). The Fifth Tank Farm Operations Shift crew is added to meet training requirements of DOE Orders 5480.5 and 5480.18. DOE Order 5480.18 requires that plant forces be accredited using operator/supervisor job-analysis based training, and outlines the requirements for lesson planning, instructional materials and examinations, the use of mockups and walkthroughs for job certification, and specifies examination frequencies. Currently, 200 Area Tank Farm Operations does not have adequate operating staff to release personnel so they can attend required training. The FY 1996 LI (TEC $75 M), provides closed loop cooling system for the 242-A Evaporator to assure continued compliance with state law and federal regulations.

The closed loop cooling system will eliminate about 1.4 billion gallons of cooling water discharged annually from the evaporator into the B Plant surface pond. The cooling water is potentially contaminated with radioactive RCRA-listed waste and Land Disposal Restricted Waste from processing double-shell tank waste. (At present there is only one confinement barrier between the radioactive listed waste and the cooling water. In the event of a primary condenser wall leak, the listed waste would be absorbed in the cooling water, pollute the B Pond, and render it unusable. The existing evaporator condenser has already had cooling tubes leak, and is being replaced with a new condenser as part of a major overhaul). The system would add cooling towers and intermediate loop heat exchangers to assure three barriers exist between the environment and the listed radioactive waste.

FUNDING BASIS:
The Job Control System implementation and Fifth (training) Shift estimates are based on an implementation plan and size of the Fifth Shift to achieve accreditation. The FY 1996 LI estimate is rough-order-of-magnitude that will be refined with an engineering study in FY 1992.

PRIORITY RATIONALE:
This activity is Priority 3 because it enhances current practices in the Tank Farms which would reduce risks and costs.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the near-term tasks/schedules is medium. Job Control and Fifth (training) Shift estimates are based on planning documentation. Confidence in the longer-range LI's for closed loop cooling is low, but will improve with completion of the engineering study in FY 1992.

ACCOMPLISHMENTS TO-DATE:
The planning for implementation of the Fifth Shift has been completed and the Job Control Plan has been completed.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9103-1B-0

ACTIVITY ALTERNATIVES:
These tasks assure disciplined work control in Tank Farms and continuing compliance with training requirements. If not funded, a steadily decreasing level of plant operability is expected, through incomplete job planning and tracking, less time will be spent in the field due to expanding classroom training requirements, and delays in meeting the new DOE accreditation order.

The LI assures complete regulatory control will be maintained over all effluent discharges from the 242-A Evaporator. If unfunded, it is likely regulatory-directed outages or facility closure will be encountered.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	96L-GFW-134	CLOSED LOOP COOLING SYSTEM	75000	90299

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: authorized for
RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9104-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0020,0052
FACILITY: TREATMENT
TITLE: 244-AR VAULT--PRETREATMENT ACTIVITIES (TPA)(W1B)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		2300	5589	0	2127	4923	2761	2375	2120
CAPITAL EQ			260	0	100	100	200	200	100
GP PROJECTS			0	0	4326				
LINE ITEMS			0	0					
TOTAL	0	2300	5849	0	6553	5023	2961	2575	2220

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
5/31/95	>COMPLETE 244-AR VAULT PRETREATMENT MISSION MODIFICATIONS		
5/31/96	>INITIATE NCAW PRETREATMENT DEMONSTRATION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Rehabilitate and modify the 244-AR process, utilities and sampling and support systems for the waste pretreatment mission. Pretreat 2M gallons NCAW retrieval from double-shell tanks in the 244-AR Vault facility using settle-decant and sludge washing. Provide planning, scheduling, radiation protection, safety, engineering, Quality Assurance and other

direct support to pretreatment facility and process preparation and operation. Perform routine maintenance, troubleshooting and corrective maintenance during 244-AR Vault pretreatment operations. FY 1991 required expense funding includes support for the AR Vault exhaust system upgrade.

Beginning in FY 1991 Required Level funding is necessary to support TPA milestone M-02 (Initiate B Plant Operations for Pretreatment of Double-Shell Tank Waste).

If funding is delayed, a year-for-year slip is expected in the TPA milestone M-02-00 since 244-AR Vault prepares the feed to begin B Plant pretreatment.

FUNDING BASIS:
Capital cost estimates are based on a completed engineering feasibility study. Work scope definition is based on detailed facility assessment and comparison to regulations. Operating cost estimates are based on historical costs, and trends and engineering judgement.

PRIORITY RATIONALE:
This activity is designated Priority 2 in support of the TPA milestones for NCAW pretreatment demonstration (M-02-00) and HWVP operation (M-03-00).

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is considered medium based on workscope definition in the "Assessment of Double-Shell Tank Waste Pretreatment Options", a draft engineering study for capital upgrades and resource-loaded schedules. These document were completed in late FY 1989.

ACCOMPLISHMENTS TO-DATE:
In FY 1989, the pretreatment options were assessed and preliminary resource-loaded schedules were prepared for AR Vault related activities. In FY 1990, the first revision of the options assessment was issued and detailed resource-loaded schedules prepared; these were subsequently revised to reflect the FY 1990 budget authorization.

ACTIVITY ALTERNATIVES:
The mission alternatives are elimination of NCAW pretreatment or NCAW pretreatment in B Plant. The life-cycle cost advantage of treatment in AR Vault is approximately $160 M resulting from early completion of B Plant processing of remaining waste types. If NCAW is not pretreated, the volume of vitrified waste will increase substantially together with disposal costs. HWVP operation would be extended to compensate for additional waste processing.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9104-1B-0

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	92G-GFW-110	244-AR VLT TRANSFER LINE AND DIESEL FUEL	1021	91602
	92G-GFW-111	244-AR VLT SEAL POT & VSL VENT HTR UPG	905	91603
	92G-GFW-135	PROCESS MODIFICATIONS	1200	91930
	92G-GFW-136	AR VAULT CONTROL ROOM MODIFICATION	1200	91931

Prepared by: TD Blankenship 5/2/90
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Approved by:
RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9105-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: STORAGE
TITLE: DST TECHNICAL SAFETY APPRAISAL (W1B)
PRIORITY: 3 NEPA: N/A
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE *			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	150	0	0	0	2500	1500	500	500	500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	150	0	0	0	2500	1500	500	500	500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/92	>SAFETY AND QA STAFF INCREASES		
6/30/92	>AIR EFFLUENT MONITORING UPGRADES TO MEET ANSI REQUIREMENTS		
7/31/92	>ADDITIONAL AIR SAMPLE DATA TRENDING		
7/31/92	>MAINTENANCE PROCEDURES (PMS, PISCES) REVIEWS AND IMPROVEMENTS		
9/30/92	>COGNIZANT ENGINEER ACCELERATED TRAINING AND CERTIFICATION		
9/30/92	>OSR REVIEWS AND IMPROVEMENTS		
9/30/92	>TRAINING PROGRAM EVALUATIONS AND IMPROVEMENTS		
9/30/92	>WORKPLACE AIR MONITORING UPGRADES		
12/31/92	>INCREASED CHEMICAL CHARACTERIZATION AND CONTROL OF TANK WASTES		
5/31/93	>PORTABLE EXHAUSTER IMPROVED DESIGN AND REPLACEMENT		
9/30/98	>SAR UPDATES		

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9105-1B-0

== NARRATIVE ==========

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environment/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $2295 K.

Perform tasks associated with DST Operations and Maintenance end function activities in order to resolve items identified as a result of the Technical Safety Appraisal (TSA) performed by DOE-HQ. Detailed costs for required improvements and upgrades have been included as identified in the Department of Energy (DOE) Tank Farm Technical Safety Appraisal (TSA) and the Westinghouse TSA Corrective Action Plan.

Examples of the major activities associated with the TSA include:

- OSR reviews and improvements
- SAR updates (partially covered in ADS 9106)
- Maintenance procedures (PMs, PISCES) reviews and improvements
- Training program evaluations and improvements
- Air effluent monitoring upgrades to meet ANSI requirements
- Installation of portal monitors
- Cognizant engineer accelerated training and certification
- Portable exhauster improved design and replacement
- Safety and QA staff increases
- QC Inspector training and certification
- Additional air sample data and radiation work permit trending
- Workplace air monitoring upgrades
- Increased chemical characterization and control of tank wastes
- Evacuation bus driver training
- Purchase computer equipment and implement Westinghouse Radiation Area Management (WRAM)

Some of the originally scheduled completion dates have been delayed due to staff and budget limitations. The Corrective Action Schedule has been rebaselined and status is updated monthly to DOE-RL.

FUNDING BASIS:
Preliminary estimates and workscope are based on the corrective action plan and discussions with Operations, Engineering and Projects personnel. Initial actions would be completed in FY 1993, but changes in procedures and practices that result from incorporating the corrective actions will increase the level of funding required for routine, continuing operations in later years.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9105-1B-0

PRIORITY RATIONALE:
This activity is designated Priority 3 based on the identification of required actions identified in the TSA completed in FY 1989.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is considered medium because long-term continued costs are not yet defined precisely. The level of confidence will increase as the preliminary tasks are completed.

ACCOMPLISHMENTS TO-DATE:
The TSA Corrective Action Plan was issued in July 1989. Monthly progress reports are being issued.

ACTIVITY ALTERNATIVES:
The alternative to this activity is delayed resolution of findings and observations identified in the Tank Farm Operations TSA conducted by DOE-HQ.

The ability to respond and correct deficiencies noted on past and future audits and inspections will be greatly reduced. TSA corrective actions are being performed to the extent that existing routine tasks can be deferred.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9106-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: STORAGE
TITLE: DST PROGRAM SUPPORT (W1B)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	8697	6595	8987	8987	9436	9500	9500	9500	9500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	8697	6595	8987	8987	9436	9500	9500	9500	9500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/90	>FIVE-YEAR PLAN UPDATE (ANNUAL)		
12/31/90	>AGING WASTE TANKS SAR		
3/31/92	>244-AR SAR		
3/31/92	>DOUBLE SHELL TANK SAR		
3/31/93	>204-AR UNLOADING FACILITY SAR		
9/30/93	>242-A EVAPORATOR SAD		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide program management support to monitor, analyze, report and control the DST Operations and Maintenance End Function. This includes: development of schedules and plans; manage costs; schedules and technical performance; preparation and evaluation of budget scenarios and change requests; preparation of programmatic and budget briefings for WHC and

FY 92 ADS ID: 9106-1B-0

DOE management; and preparation of capital and expense budget plans, priorities and projections.

Provide engineering management systems support. This includes: configuration management; operating document control; engineering document release stations and records retention; configuration (database) accountability for engineering and operating documents; and assurance of revision control so latest approved documents are used in the field.

Maintain quality assurance program for construction projects and equipment procurement. This includes modification and maintenance of the quality assurance programs in accordance with WHC and DOE requirements; retention and retrieval services for project/procurement quality assurance records; equipment and construction quality assurance; and DST equipment vendor submittal reviews and source inspections for CENRTC and expense-procured equipment.

Prepare, revise and maintain safety analysis reports for operating activities. This includes: existing SAR upgrades to NRC regulatory guide 3.26; preliminary safety evaluations; PSARs and FSARs for construction projects and coordination for all organizations required to support preparation, and approval of the DST End Function SARs called out in the SAR Program Plan.

Provide safety review and integration support and regulatory analysis support to ensure continued safe operating conditions. This support includes: design/document review coordination, operating procedure review coordination, and independent safety review; and safety appraisals of DST operations to identify deficiencies and develop corrective actions.

Includes funding for assessments (not in the original plan) for the DST Operations and Maintenance end function. This includes: hazardous waste disposal; on-site solid waste disposal; steam; laundry; replacement and repair of SWP clothing; decontamination and refurbishment of face masks; electrical power for the DST farms and associated facilities; rail operation; T Plant; and material procurement support.

FUNDING BASIS:
Operating estimate is based on historical costs and trends consistently applied year-to-year.

PRIORITY RATIONALE:
This activity is considered Priority 1 in order to maintain program continuity.
LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is high based on past years' performance of these same tasks.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9106-1B-0

ACCOMPLISHMENTS TO-DATE:
FY 1991 Five-Year Plan and FY 1991 Budget Submittal completed in FY 1989. FY 1989 Program Plan and Quarterly Updates completed. Draft Capital Asset Management Plan (CAMP) and draft FY 1992 Five-Year Plan completed. Resource-loaded End Function Level II and III planning schedules completed.

ACTIVITY ALTERNATIVES:
The alternative is reduced level of support to safety reviews, Quality Assurance, configuration management, budget controls and financial reporting.

Prepared by: TD Blankenship 5/2/90
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Approved by: for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9107-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0019
FACILITY: STORAGE
TITLE: DST STORAGE PACEE (WIB)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: W-022 TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	653	738	480	480	510	760	1110	1110	1110
CAPITAL EQ									
GP PROJECTS	905	0	345	345	3600	2000	2000	2000	2000
LINE ITEMS						1000	7000	22000	15000
TOTAL	1558	738	825	825	4110	3760	10110	25110	18110

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/91	>SUBMIT FY 93 LI CDR CROSSITE TRANSFER LINES		
2/29/92	>SUBMIT FY 94 LI CDR SY VENTILATION SYSTEM		
2/28/93	>SUBMIT FY 95 LI CDR CASS UPGRADE		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide definition and administration of small projects, GPP and line item capital work for storage of DST waste for the Operations and Maintenance end function. Prepare engineering studies and functional design criteria feasibility studies and functional design criteria. Prepare conceptual designs, cost estimates and schedules, and project implementation paperwork needed to meet Congressional budget cycle

validation and funding. Current proposed line items are W-058, Cross-Site Transfer Line Replacement, W-061, SY Tank Farm Ventilation System and the Tank Farm Computer Automated Surveillance System (CASS) Upgrade.

The Cross-Site Transfer Line Item will replace a six single-walled pipe and concrete encasement system with RCRA-compliant double-wall piping. Four of the pipes have failed or plugged up. Transfers from 200-W Area, including SST saltwell pumping transfers needed to meet TPA milestone M-05-00, rely on a single line; the backup line has not been pressure-tested and its condition is not known. Roots of tumbleweeds growing on top of the cross-site right of way have apparently penetrated the concrete encasement and contaminated the overburden, raising doubts about confinement integrity. If these last lines fail before the new double-wall lines are completed, or regulatory discretion results in closure of the pipelines pending replacement, 200-W Area operations will have to be stopped.

The SY Tank Farm Ventilation Upgrade provides backup exhaust capability in the event the primary exhaust fails, replaces the steam heaters for the HEPA exhaust filters with electric heaters, and provides greater capacity to exhaust the gas generated from double-shell slurry growth in Tank 101-SY. At the present time there is not backup capability if the main exhauster fails, leaving the three tanks without primary confinement. Leaks in the steam heater coils wets the HEPA filters, which restricts air flow from the tanks and allows their pressure to rise. In addition, the growth-collapse cycle of the double-shell slurry can result in temporary pressurization of the system as the gas escapes the collapsing slurry. The new system will provide additional capacity to compensate for the gas generation.

The Computer Automated Surveillance System (CASS) provides central monitoring for the SST and DST Farms, and Tank Farm facilities. It is made up of two mainframe computers, and field located microcomputers that will be 20 years old when the CASS Upgrade line item definitive design begins. The equipment is obsolete, and cannot be expanded to meet additional surveillance demands now being placed on it by new standards. The line item will replace the system with a distributed system consisting of local processors, and a central control and reporting/archiving console. Sufficient spare capacity will be provided on the data collection highway to accommodate foreseeable surveillance expansion.

FUNDING BASIS:
Operating estimates are based on historical costs and trends consistently applied year-to-year. Capital estimates are based on engineering studies, functional design criteria and conceptual designs, depending on the stage of the project.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9107-1B-0

PRIORITY RATIONALE:
This activity is considered Priority 1 because of the need to maintain existing levels of environmental control and worker protection.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high based on past capital project experience.

ACCOMPLISHMENTS TO-DATE:
In FY-1989, contracts were negotiated for design of a new facility for regulated equipment maintenance. Engineering studies were initiated for the cross-site transfer line replacement and completed for the SY Tank Farm ventilation system. Candidate project lists were prepared for the outyears.

ACTIVITY ALTERNATIVES:
There is no serious alternative to the project. Continued confinement of high-level and low-level liquid tank waste and completion of DST and SST waste retrieval depend on these capital improvements. The only alternative is delay completion of the work and operate the existing facilities at a reduced performance level to assure operating continuity until replacement facilities are completed.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	89G-GFW-022	REGULATED EQUIPMENT MAINT FAC (89D-171)	1160	90039
	FY91	GPP/CWO RESERVE	345	90008
LINE ITEMS				
	93L-GFW-058	CROSS-SITE TRANS LINE	52000	91137
	94L-GFW-061	SY TANK VENTILATION SYSTEM	14200	91339
	95L-GFW-137	TANK FARM CASS UPGRADE	7000	91138

Prepared by: TD Blankenship 5/2/90
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Approved by: RE Gerton 5-9-90
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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9108-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: STORAGE
TITLE: DST STORAGE OPERATIONS (W1B)
PRIORITY: 1
B&R CODE: EW-30-10-30
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0019
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1990 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	16977	19420	20420	20420	21745	21745	21745	21745	21450
CAPITAL EQ	938	451	1011	1011	1090	1060	1110	1060	1090
GP PROJECTS									
LINE ITEMS									
TOTAL	17915	19871	21431	21431	22835	22805	22855	22805	22540

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
	>PUBLISH TANK FARM SURVEILLANCE AND WASTE STATUS SUMMARY WHC-E-0187-XX MONTHLY		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide for storage of double-shell tank (DST) waste for the Operation and Maintenance end function. This includes tank surveillance data collection and analysis on the DSTs, and operation and maintenance of equipment necessary to ensure DST safety and continuity of operation.

Operate storage and surveillance equipment. This includes: active exhausters; catch tanks and pumpout routes; routine decontamination and support for maintenance crews; perform facility inspections, audits,

housekeeping and training.

Collect surveillance data for the monitoring of DSTs and associated pipelines. This includes all surface levels, temperature, hydrogen, and psychometric data specified by criteria (SD-WM-TI-357, Waste Storage Tank Status and Leak Detection Criteria, Rev. 1), in-tank photography required to support routine surveillance and tank anomaly investigations, tank dome surveys, dry well readings, swab riser readings of transfer lines, and operation of the DST portion of the computer automated surveillance system (CASS).

Maintain DST storage equipment and facilities. This includes: fire systems maintenance support, preventive maintenance; instrument and equipment calibrations, repairs, modifications and upgrades; maintenance engineering support for updating PM and calibration procedures; spare part reviews, upgrades, and OTP review; ancillary services such as lagging removal and masonry maintenance; operation of new cathodic protection systems as they are activated; training; and shop fabrication services.

Provide engineering support for DST storage activities. This includes: technical guidance for the day-to-day operations of the facilities; engineer training; preparation and revision of operational procedures and specifications; resolution of maintenance/operating problems; independent tank anomaly investigations and surveillance data review; mechanical and electrical design of storage and surveillance equipment; instrumentation and tooling for DST storage activities; troubleshooting; procurement documentation review; failure analysis; and nonconformance reports for the WHC Fabrication Shop and field maintenance activities.

Provide technical analysis of DST surveillance data. This includes: review and evaluation of DST surveillance data; tank integrity evaluations; the DST portion of CASS software maintenance and development, and system management functions; and procedure and data analysis revisions that enhance prompt detection, evaluation, notification and appropriate corrective action of primary tank leakage.

FUNDING BASIS:
Operating estimates are based on historical costs and trends consistently applied.

PRIORITY RATIONALE:
This activity is Priority 1 because it ensures the health and safety of on-site and off-site populations and the protection of the environment.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the budget projection is high based on past years' performance of these tasks.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9108-1B-0

ACCOMPLISHMENTS TO-DATE:
A total of 701 Preventative Maintenance (PM) activities were completed in FY 1989 in both DST and SST Farms (see ADS #9302). The PMs are necessary to assure the safety and reliability of equipment and facilities.

A total of 7,202 Plant Instrumentation Surveillance, Calibration, and Evaluation System (PISCES) checks were completed in FY 1989 in both DST and SST Farms (see ADS #9302). The PISCES are necessary to assure consistent, reliable readings from plant instrumentation.

A PISCES reduction program was initiated in FY 1989. This program reduced the number of necessary PISCES by 30 percent.

The computerized surface level trending system was installed and turned over to surveillance analyst personnel in September 1989.

Between August 1989 and mid-February 1990 93,000 waste surface level readings were taken for both DSTs and SSTs (see ADS #9302 for SSTs); from October 1989 to mid-February 1990 10,000 temperature readings were taken. These examples are typical of the data routinely collected, analyzed, and systematically reviewed for trends which could predict unplanned or unforeseen changes in tank conditions.

ACTIVITY ALTERNATIVES:
There are no serious alternatives to this activity. Continued confinement of high-level and low-level liquid waste depends on these activities. Failure to fund this activity will result in offsite releases and harm to plant workers and the public.

Prepared by: TD Blankenship 5/2/90
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Approved by: for RE Gerton 5-4-90
for RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9109-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT
TITLE: DST TREATMENT OPERATIONS (W1B)
PRIORITY: 1
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0056
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	5259	5675	5575	5575	5853	6395	8195	8195	8195
CAPITAL EQ	17	710	400	400	50	150	700	200	200
GP PROJECTS									
LINE ITEMS									
TOTAL	5276	6385	5975	5975	5903	6545	8895	8395	8395

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
	>ACHIEVE (TBD) MGAL WASTE VOLUME REDUCTION THROUGH EVAPORATION (ANNUAL)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide for all production processing support to double-shell treatment operations activities. All facility inspections, audits and housekeeping conducted by production processing related to DST farm treatment operations and responses to Tank Farm Facilities audits or inspections are included. Operational support is included. Collect all required surveillance data for the monitoring of 242-A Evaporator.

Maintain equipment and facilities. This includes: routine calibration and preventive maintenance; troubleshooting and repair and equipment

FY 92 ADS ID: 9109-1B-0

upgrades.

Provide engineering support required for DST treatment operations activities. This includes: technical guidance for the day-to-day operation of the facilities; engineer training; preparation and revision of operational procedures and specifications; resolution of maintenance/ operating problems; alternative operating scenarios evaluations; mechanical and electrical design of equipment instrumentation and tooling for DST treatment operations activities; procurement documentation review; failure analysis; analytical laboratory support for routine sample measurements; and special studies and evaluation of unplanned events and process upsets.

Provide field services support. These include: operation of light and heavy-duty equipment; rigging for lifting, transferring and installing equipment; excavations; material handling and transportation needed to install, remove or replace equipment, establish transfer routes, and provide access to transfer line valve pits.

FUNDING BASIS:
Operating estimate based on historical costs and trends.

PRIORITY RATIONALE:
Priority 1 because it is an ongoing, currently funded activity.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence in the budget projections is high based on past years' performance of these tasks.

ACCOMPLISHMENTS TO-DATE:
During FY 1989, 4.1 million gallons of DST space was recovered through evaporator operation.

ACTIVITY ALTERNATIVES:
Waste transfer and treatment (242-A Evaporator) necessary to minimize liquid waste to DST and conserve tank space. The alternative is shut down of the facility and build new tanks.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: Authorized for
RE GERTON 5-9-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9110-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0056
FACILITY: TREATMENT
TITLE: 244-AR VAULT--INACTIVE STATUS (W1B)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	625	817	663	663	700	700	700	700	700
CAPITAL EQ	135					66	15		
GP PROJECTS									
LINE ITEMS									
TOTAL	760	817	663	663	700	766	715	700	700

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS

>

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide Tank Farm Operations, Maintenance and Process Engineering support to maintain the 244-AR Vault in "inactive status". Work encompasses preventive maintenance, calibrations, repairs, modifications, upgrades, and capital equipment replacements. Provide planning and administration, preparation of test plans, flow sheets, specifications, operating procedures, OTPs for B-462A and B-551, other technical support and readiness review.

FUNDING BASIS:
Operating and capital equipment estimates are based on historical costs

FY 92 ADS ID: 9110-1B-0

and trends consistently applied year-to-year.

PRIORITY RATIONALE:
This activity covers the minimum work necessary to maintain the inactive 244-AR Vault in a safe condition and is Priority 1.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high, based on historical records of costs to maintain the 244-AR Vault.

ACCOMPLISHMENTS TO-DATE:
During FY 1989, readiness reviews were conducted on two plant system upgrade projects.

ACTIVITY ALTERNATIVES:
There is no viable alternative. These tasks are required until the 244-AR Vault is decontaminated and decommissioned.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9113-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT
TITLE: DST TREATMENT TECHNOLOGY (W1B)
PRIORITY: 1
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0056
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	277	394	394	394	414	414	414	414	414
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	277	394	394	394	414	414	414	414	414

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
	>		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide technology development support for current liquid waste treatment methods and resolution of operating problems. Integrate tank farm waste treatment and evaporator activities and planning with other waste management. Provide support to Chemical Engineering Laboratory, Statistics Analysis Group and Analytical Laboratory for DST (non-retrieval) waste treatment technology. Document plans and development results in the Double-Shell Tank Technology Program Plan.

FUNDING BASIS:
The operating estimate is based on historical costs and trends

FY 92 ADS ID: 9113-1B-0

consistently applied year-to-year in accordance with objectives identified in site long-range plans.

PRIORITY RATIONALE:
This activity is considered Priority 1. These tasks support routine operations to maintain safe conditions in DST facilities in accordance with DOE requirements.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high based on historical level of support to operations.

ACCOMPLISHMENTS TO-DATE:
Evaluation of 242-A discharges for dangerous waste and RCRA-listed wastes was completed in FY 1989. Resolution of listed waste discharges through delisting and treatment was made and the required facilities and procedures identified.

ACTIVITY ALTERNATIVES:
There are no serious alternatives. These tasks are the minimum technology requirements for maintaining safe operating conditions in existing facilities.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton 5-9-90
RE GERTON

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9114-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT
TITLE: DST TREATMENT PACEE (W1B)
PRIORITY: 1
B&R CODE: EW-30-10-25
A-106: B-534
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0056
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	2603	1298	1500	1500	1200	820	820	820	820
CAPITAL EQ									
GP PROJECTS	1100	2200	1200	1200	200				
LINE ITEMS	689								
TOTAL	4392	3498	2700	2700	1400	820	820	820	820

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>COMPLETE B-534 EVAPORATOR UPGRADE PHASE I		
1/31/91	>BEGIN W-085 EVAPORATOR EXTERNAL UPGRADE DEF. DESIGN		
6/30/91	>COMPLETE W-066 ELECTRICAL UPGRADES		
1/31/92	>BEGIN TF STORAGE BLDG. DEF. DESIGN		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide definition and administration of small projects, GPP and line item capital work for storage of DST waste for the Operations and Maintenance end function. Provide work definition, performance objectives and ROM costs and schedules via feasibility studies and functional design criteria. Prepare conceptual designs, cost estimates

FY 92 ADS ID: 9114-1B-0

and schedules, and project implementation paperwork needed to meet Congressional budget cycle validation and funding. Current GPPs and LIs include W-066, AZ Tank Farm electrical upgrade, and B-534, 242-A Evaporator upgrade.

FUNDING BASIS:
Operating estimates are based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in site long-range plans. Capital estimates are based on engineering studies, functional design criteria and conceptual designs, depending on the stage of the project.

The reduction between FY 1991 Target and Required is due to transfer of DST retrieval workscope to ADS 9116. The FY 1992 small project is for a tank farm storage building (TEC $0.2 M).

PRIORITY RATIONALE:
This activity is considered Priority 1 because of the need to maintain existing levels of environmental control and worker protection.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high based on past capital project experience.

ACCOMPLISHMENTS TO-DATE:
The evaporator was turned over to construction forces for the upgrade. The new control room was finished and the test procedures successfully completed on the new evaporator distributed control system.

ACTIVITY ALTERNATIVES:
The alternative is decreased operating efficiency for the 242-A Evaporator due to further equipment deterioration. If the evaporator falls behind schedule, there will be insufficient space to handle B Plant pretreated waste which will postpone TPA milestone M-02 pretreatment and milestone M-03 HWVP. The AZ Tank Farm Electrical Upgrade is required for powering the mixer pumps used in the tank 101-AZ retrieval. Delays in this project will delay milestone M-02, B Plant Pretreatment.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	90G-GFW-066	AZ TANK FARM ELECTRICAL UPGR (90D-171)	1100	91119
	91G-GFW-085	TANK FARM 242-A EVAPORATOR UPGR(91D-171)	1200	91120
	92G-GFW-138	AP TF STORAGE BLDG. (92D-171)	200	91974
LINE ITEMS				
	87L-GFB-534	TK FM 242-A EVAP UPG (B-534)(87D-173)	15600	91122

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9114-1B-0

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton for 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9115-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: STORAGE
TITLE: DST STORAGE TECHNOLOGY (W1B)
PRIORITY: 2
B&R CODE: EW-30-10-30
A-106: N
REGULATORY DRIVERS: DOE, ORD
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0019
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: M-02
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1992 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	1287	1323	1364	1364	1432	1500	1500	1500	1500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	1287	1323	1364	1364	1432	1500	1500	1500	1500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
	>ISSUE ANNUAL UPDATE DST TECHNOLOGY PROGRAM PLAN		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

This activity provides technology development that allows segregated waste streams to be combined or allows storage of more liquid in the available tank space. This includes analysis of heat loads and temperature limits to optimize storage conditions for safety and costs; establishment of waste generation targets that control the volumes entering the DSTs and measurements of generator performance relative to

the targets. The control of DST space is needed to assure sufficient space for TPA-generated waste.

This activity provides technology support to DST storage characterization needs. This will include obtaining and analyzing samples from tanks; waste layer analysis of NCAW core samples; hydroxide analysis of complexant concentrate core samples; NCRW-TRU sampling; and solid-liquid interface layer measurement development.

This activity provides engineering to resolve DST operating issues which require intermediate and long-range resource commitments. This includes planning and scoping documentation; contracting of outside specialty consultants, specialty consultants, specialty equipment and procedure development; laboratory support; and technical documentation of completed work.

FUNDING BASIS:
Operating estimate is based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in site long-range plans.

PRIORITY RATIONALE:
The activity is Priority 2 because it is required support to continue DST operations, and assures operation in a safe, environmentally sound manner. Supports TPA M-02.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high because there is a sound historical basis of similar activities upon which to estimate task durations and cost estimates.

ACCOMPLISHMENTS TO-DATE:
Evaluation of weapons grade TRU/non-TRU NCRW waste separation was completed. Complexant caustic consumption was evaluated and documented as a potential complexant destruction treatment.

ACTIVITY ALTERNATIVES:
The work can be postponed; however, postponement may delay TPA schedules because inadequate tank space may be available to accommodate pretreated B Plant volumes, and could result in construction of additional DST storage space.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9115-1B-0

Prepared by: TD Blankenship 5/4/90
TD BLANKENSHIP

Approved by: RE Gerton 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9117-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0056
FACILITY: TREATMENT
TITLE: DST TREATMENT PACEE RETRIEVAL PROJECTS (TPA)(W1B)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N):
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE *
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	2280	0	3040	2850	4325	3680	6790
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									4600
TOTAL	0	0	2280	0	3040	2850	4325	3680	11390

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/94	>COMPLETE FY96 LI CDR		
2/28/95	>COMPLETE FY97 LI CDR		
1/31/96	>START FY96 LI DEF. DESIGN		
2/28/96	>COMPLETE FY98 LI CDR		
1/31/97	>START FY97 LI DEF. DESIGN		
2/28/97	>COMPLETE FY99 LI CDR		
1/31/98	>START FY98 LI DEF. DESIGN		
2/28/98	>COMPLETE FY00 LI CDR		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9117-1B-0

Provide double-shell tank modifications and waste retrieval systems needed to recover the liquid waste and sludge that has accumulated in the tanks for pretreatment at B Plant and feed to HWVP. This activity directly supports TPA milestones M-02, B Plant Pretreatment, and M-03, HWVP Operation.

Prepare engineering studies, FDCs, and CDRs for construction of the waste retrieval systems utilizing the process test information available from the waste retrieval demonstrations conducted in Fiscal Years 1996-1999.

Design and install the retrieval systems and tank system modifications in 19 of the 28 tanks needed to recover NCAW, NCRW, CC, PFP and DSS liquids and sludge.

The line item construction schedule and size of each line item is determined by the schedule for feed staging for B Plant pretreatment, HWVP vitrification, and Grout disposal, and by the need for interim storage of pretreated and LLW waste fractions. Retrieval systems will be used to cleanout a tank for receipt of a different feedstock, or to recover pretreated feedstock that has been interim stored pending vitrification or grout disposal. Over the life of the retrieval program some tanks will need more than one type of retrieval system depending on the characteristics of the stored waste. Based on receiving Required Funding the construction schedule is planned as follows:

W-140	FY96	4	Tank Waste Retrieval Systems
W-141	FY97	5	Tank Waste Retrieval Systems
W-142	FY98	6	Tank Waste Retrieval Systems
W-143	FY99	3	Tank Waste Retrieval Systems
W-144	FY00	4	Tank Waste Retrieval Systems
W-145	FY01	5	Tank Waste Retrieval Systems
W-146	FY02	1	Tank Waste Retrieval System
W-147	FY03	1	Tank Waste Retrieval System

Operate the systems, consisting of two or four 300 HP recirculating mixer pumps mounted on each tank, to prepare a homogeneous solid-liquid mixture, and transfer the mixture to B Plant for pretreatment (fractioning) into grout feed stock (LLW) and vitrification (HLW) feed stock.

Accumulate the B Plant pretreated feed stock inventory in previously retrieved double-shell tanks for campaigning through HWVP.

FUNDING BASIS:
Operating estimate based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in site long-range plans.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9117-1B-0

Tank 101-AZ waste retrieval CDR completion in FY 1989 is the construction and design cost basis for the line items.
The difference between FY 1991 Target and Required is because this activity was not separately identified in the FY 1991 ADSs. Outyear funding variations result from phasing of the LIs and project definition activity (FDC, CDR, project engineering) which varies directly with capital funding.

Beginning in FY 1990 Required Level funding is necessary to support TPA milestone M-03 (Initiate Hanford Waste Vitrification Plant Operations).

PRIORITY RATIONALE:
The activity is Priority 2 to meet the terms and agreements of the Hanford Tri-Party Agreement between DOE, EPA and the Washington State Department of Ecology.

LEVEL OF CONFIDENCE RATIONALE:
The medium level of confidence is based on knowledge of conditions in the facilities, preliminary planning, and completion of the 101-AZ conceptual design estimate in September 1989. The estimate for the outyear Line Items are based on the similarity to the CDR.

ACCOMPLISHMENTS TO-DATE:
The 101-AZ waste retrieval process test CDR was completed in September 1989. Definitive design of the process test which will be the basis for Line Items in this ADS was initiated in October 1989 (ADS 9116 and ADS 9150).

ACTIVITY ALTERNATIVES:
The alternative is to postpone the action and risk environmental impacts. If DST space is not recovered, construction of additional tank space could be required to accommodate liquid waste generated from TPA site cleanup activities such as SST retrieval. Current tank space projections assume additional space is made available through LLW Grout disposal of tank contents.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	00L-GFW-144	WASTE RETRIEVAL SYSTEM	26900	91982
	01L-GFW-145	WASTE RETRIEVAL SYSTEM	26000	91983
	02L-GFW-146	WASTE RETRIEVAL SYSTEM	5400	91984
	03L-GFW-147	WASTE RETRIEVAL SYSTEM	5400	91985
	96L-GFW-140	WASTE RETRIEVAL SYSTEM	26900	91978
	97L-GFW-141	WASTE RETRIEVAL SYSTEM	21600	91979
	98L-GFW-142	WASTE RETRIEVAL SYSTEM	33600	91980

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9117-1B-0

99L-GFW-143 WASTE RETRIEVAL SYSTEM 13600 91981

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton 5-4-90
RE GERTON

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9118-1B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: CHAR/ASMT
TITLE: DST TREATMENT RETRIEVAL SYS PROCESS TESTS OPER SUPPORT (TPA)(W1B)
PRIORITY: 2
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: NEW
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: M-02
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	1433	2300	0	1800	4250	4205	2855	4250
CAPITAL EQ									
GP PROJECTS	300								
LINE ITEMS									
TOTAL	300	1433	2300	0	1800	4250	4205	2855	4250

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
5/31/94	>COMPLETE NCAW RETRIEVAL DEMONSTRATION TO SUPPORT PRETREATMENT DEMONSTRATION		
5/31/95	>COMPLETE NCRW RETRIEVAL DEMONSTRATION		
9/30/96	>COMPLETE CC (WEST) RETRIEVAL DEMONSTRATION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

This activity provides operations of the DST retrieval demonstration process tests and the full-scale mock-up, including readiness preparation, procedure preparation, training and pumping. The equipment

FY 92 ADS ID: 9118-1B-0

and facility modifications needed for the process tests are funded in ADS 9150.

Process retrieval tests will be conducted, beginning with NCAW in FY 1996, then neutralized cladding removal waste (NCRW), 200 East and 200 West complexant concentrate (CC), and Plutonium Finishing Plant Waste. The results of these tests will be incorporated in the design basis of the DST retrieval line items beginning in FY 1996 (see ADS 9117). The retrieved waste will be fractioned into HWVP and Grout feedstocks for solidification.

Beginning in FY 1990 Required Level funding is necessary to support TPA milestone M-02 (Initiate B Plant Operations for Pretreatment of Double-Shell Tank Waste) and M-03 (Initiate Hanford Waste Vitrification Plant Operations).

FUNDING BASIS:
The estimate is based on detailed discussions with cognizant Operations and Engineering staff and historical costs, trends for similar operations and facilities, and the 101-AZ CDR completed in September 1989.

The FY 1991 required funding exceeds the target level because FY 1990 guidance funding caused work to be postponed.

The funding variability between fiscal years results from the time phasing of the process tests (NCAW 10/93; NCRW 3/94; CC-W 10/85; and CC-E 11/96).

PRIORITY RATIONALE:
This activity is Priority 2 because it is needed to meet the Hanford Tri-Party Agreement schedule.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is medium. Operations Readiness preparations and process test operations estimates are based on comparisons to previous similar activities. The Tank 101-AZ CDR establishes the installation plan and operating plan for the tanks.

ACCOMPLISHMENTS TO-DATE:
None. This is a new ADS.

ACTIVITY ALTERNATIVES:
The alternative is to delay the schedule to support TPA milestones for NCAW pretreatment (M-02-00) and HWVP operation (M-03-00).

CONSTRUCTION PROJECTS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9118-1B-0

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	90G-GFW-106	TANK WASTE RETR.EQUIP.HANDLING & OPS FAC	300	91972

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9120-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0019
FACILITY: STORAGE
TITLE: DST STORAGE TANK FARM VENT UPGRADE (W-030)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	300	320	320	320	340	340	150		
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	15169	3400	3400	3400	4031				
TOTAL	15469	3720	3720	3720	4371	340	150	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
4/30/91	>COMPLETE W-030 DESIGN		
6/30/93	>COMPLETE W-030 CONSTRUCTION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Due to insufficient funding at the FY1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

Design, construct and install a replacement ventilation system for the AY and AZ Tank Farms (W-030, FY 1989 LI). Provide: (1) Operations support for design reviews; (2) Radiation Monitoring and Operations interface during construction; (3) operability tests and readiness review; and (4) procedures and safety documentation for operation. This project replaces the original ventilation system for these tanks

FY 92 ADS ID: 9120-1B-0

(over 20 years old) and improves airborne effluent control. This system is required in order to perform waste retrieval in the tanks that feed B Plant NCAW pretreatment (TPA M-02-00).

FUNDING BASIS:
Capital funding was authorized as FY 1989 LI. Expense funding is provided consistent with the project phase and magnitude of effort. Construction completed in FY 1992.

PRIORITY RATIONALE:
This activity is considered Priority 1 to maintain effluent controls and worker protection within DOE requirements and guidelines.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high, based on the conceptual design and past experience with line item projects.

ACCOMPLISHMENTS TO-DATE:
Definitive design is in progress and the 30% design review is complete.

ACTIVITY ALTERNATIVES:
The alternative is continued operation of deteriorating equipment with increasing maintenance, worker exposure, and environmental risks and delaying TPA milestone M-02-00, B Plant NCAW Pretreatment.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
LINE ITEMS					
	89L-GFW-030	TANK FARMS VENT UPGRADE (89D-173)	24600	90050	

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: /s/ Matthews for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9121-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0019
FACILITY: STORAGE
TITLE: DST STORAGE AGING WASTE TRANSFER LINES (W-028)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	250	265	265	265	275	275	50	0	0
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	1280	4000	4000	4000	6000	1220			
TOTAL	1530	4265	4265	4265	6275	1495	50	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
8/31/91	>COMPLETE W-028 DESIGN		
6/30/93	>COMPLETE W-028 CONSTRUCTION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Design and construct new waste transfer lines between the AY/AZ Tank Farms and B Plant (W-028, FY 1990 LI). Provide: (1) Operations support for design review; (2) Radiation Monitoring and Operations interface during constructions; (3) operability tests and readiness review; and (4) procedures and safety documentation for operation. This project will replace single containment lines with double containment lines. The TEC is $12.5 M.

FUNDING BASIS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9121-1B-0

Capital funding was authorized as FY 1990 LI. The estimates are based on completed conceptual design and start of definitive design. Expense funding is provided consistent with the project phase and magnitude of effort. Construction completed in FY 1993.

PRIORITY RATIONALE:
This activity replaces existing thin-wall piping, over 20 years old, with double contained piping. The age of the existing lines and the continued need for use make this activity Priority 1.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is high, based on the conceptual design and past experience with line item projects.

ACCOMPLISHMENTS TO-DATE:
The Conceptual Design Report was issued and the project has been validated for capital funding in FY 1990.

ACTIVITY ALTERNATIVES:
The alternative is continued use of old, thin-wall piping for high-level waste transfers and increasing risks of leaks. Continued use of the single-wall pipes is subject to regulatory discretion and unscheduled closure.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	90L-GFW-028	AGING WASTE TRANS LINES (90D-172)	12500	90052

Prepared by: TD Blankenship 5/4/90
TD BLANKENSHIP

Approved by: RE Gerton 5-4-90
RE GERTON

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9122-1B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0300
FACILITY: STORAGE
TITLE: DST PERMITTING (NOD)(TPA) (W1B)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: PERMIT-007 TPA MS: M-20
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING					484				
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	484	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:

~~The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.~~

~~Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.~~

This ADS contains a portion of the funding for A-106 project "Permit-001." This is a phased activity. See sheet RL-9112-1B for the FY 1990 and FY 1991 work.

DOE-RL facilities are subject to interim status requirements 40 CFR Part 265 until Part B permits are approved. The Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) (EPA et al, 1989)

* Revision is not included in Headquarters data disks, or Richland Operations data disks, due to late receipt of revision.

FY 92 ADS ID: 9122-1B-0

defines permits and defers enforcement action if the schedule in the Agreement is met. The DST and 242-A Part B Permit applications will be submitted in June 1991 (see sheet RL-9112-1B). This sheet covers the Waste Management costs associated with responding to State of Washington comments (Notices of Deficiencies).

The Double Shell Tanks (DSTs) are a group of tanks located in the 200 East, 200 West and 600 Areas that store and treat mixed waste (radioactive and dangerous waste). Because the tanks store dangerous waste for more than 90 days and/or treat waste designated as dangerous or extremely hazardous, the tanks are required to be permitted for operation under the Dangerous Waste Regulations of the Washington State Department of Ecology (WAC 173-303) (Ecology 1989a) and the Resource Conservation and Recovery Act (RCRA) of 1976. The 224-AR Vault is included in the DST Part B as a storage facility. Sludge washing in 244-AR supporting B Plant pretreatment and TPA Milestone M-02 changes the plant mission from storage to treatment and may result in the completion of a separate Part B. This ADS will be modified to show the additional Part B at that time.

The 242-A Evaporator (Evaporator) is a facility located within the 200 East Area that treats mixed waste (radioactive hazardous waste) and is required to be permitted for operation under the RCRA of 1976.

FUNDING BASIS:
The operating estimate is based on engineering estimates and experience with the Part B application for the Grout Facility and typical comments received from similar permit applications.

PRIORITY RATIONALE:
This activity is an ongoing, currently funded activity which directly supports completion of Tri-Party Agreement milestones M-20-17 and M-20-16.

LEVEL OF CONFIDENCE RATIONALE:
The confidence level of medium is based on knowledge of conditions in the facilities and on preliminary planning and experience with the Grout Part B.

ACCOMPLISHMENTS TO-DATE:
The Management Action Plans were completed and issued. Both permits are in preparation.

ACTIVITY ALTERNATIVES:
Interruption of this activity will prevent completion of the milestones identified in the Hanford Tri-Party Agreement.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9122-1B-0

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton 5-9-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9126-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0090
FACILITY: DISPOSAL- B PLANT
TITLE: PROJECT SUPPORT- HEC LINE ITEMS (1W1D3)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: HECW007/10 TPA MS: M-17
REGULATORY DRIVERS: RCRA, DOE, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	1965	2810	1960	1530	2388	1734	1231	0	
CAPITAL EQ									
GP PROJECTS	950		0		300				
LINE ITEMS	8176	7860	7860	6862	6122	4700	1740		
TOTAL	11091	10670	9820	8392	8810	6434	2971	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
7/31/92	>*COMPLETE B PLANT CHEMICAL SEWER UPGRADES		M-17-04
6/30/95	>*COMPLETE LIQUID EFFLUENT TREATMENT FACILITIES/UPGRADES FOR ALL PHASE I STREAMS		M-17-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding in FY 1990 and FY 1991.

The following on-going Hanford Environmental Compliance (HEC) line items are required in order to discontinue discharge of contaminated liquid effluents to the soil column and support the identified TPA milestones.

FY 92 ADS ID: 9126-1D-0

W-007H, BCP Treatment Facility - Provides B Plant with a facility designed to treat the B Plant Process Condensate (BCP) to Best Available Technology (BAT) Standards. In addition, the facility is designed to form the foundation for the crane maintenance facility in Project W-002, B Plant Canyon Crane Replacement.

W-024H, B Plant Radiological and Containment Upgrades - Will provide upgrades to the B Plant Cell Drain Header, Vessel Vent System, and canyon ventilation supply units. This is necessary to ensure compliance with DOE and EPA regulations for liquid and airborne effluents.

W-010H, B Plant Environmental Compliance Upgrades - Provides spill containment for storage tanks in the B Plant 211-B chemical tank farm and an independent drain system for the operating gallery scale tanks. In addition, it will provide enhanced instrumentation and alarms for the 211-B storage tanks. Expense support for projects under directive FY 1990 or prior (projects W-003, W-004, W-008) is included in this activity.

FUNDING BASIS:
Source and Date: W-007H, Preliminary Design Report (9/89)
W-010H, Conceptual Design Report (5/88)
W-024H, Conceptual Design Report (04/89)

The reduction from FY 1991 Target to FY 1991 Requirements is due to a reduction in project and technology support. The increase from FY 1991 to FY 1992 Requirements is due to an increase in required expense support for Projects W-007 and W-010. In the peak years of FY 1991 and FY 1992, 16 man-years of WHC personnel are supported.

PRIORITY RATIONALE:
These ongoing priority 1 activities described by ADS 9126-1D are required to meet the waste management mission activities for treatment, storage and disposal. These priority 1 activities are necessary for ongoing safe operations and maintenance in compliance with applicable State and Federal regulatory agreements and commitments. Such activities, if eliminated, could result in significant program and resource impacts to B Plant.

LEVEL OF CONFIDENCE RATIONALE:
Medium, for projects W-007H, W-010H, and W-024. Project estimates are based on conceptual design reports. The level of confidence will increase following definitive design.

ACCOMPLISHMENTS TO DATE:
1) Project W-007H, Completed Preliminary Design Report, 9/89.
2) Project W-024H, Completed Conceptual Design Report, 4/89. Complete

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9126-1D-0

Value Engineering Study, 12/89.
4) Issued Annual Status Report of the Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site.

ACTIVITY ALTERNATIVES:
If subject projects are not supported, B Plant will continue to transfer potentially contaminated hazardous liquid waste to Tank Farms for disposal. Since Tank Farms is unable to accept the volume of waste generated during actual plant operations, B Plant would be forced to remain in a standby/surveillance mode in order to keep waste volumes to a minimum. Maintaining a standby/surveillance status will seriously impact B Plant as being a viable pretreatment facility for NCAW and post NCAW processing.

Alternatively, B Plant would discharge potentially hazardous liquid waste to the soil column. This option is not in compliance with the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-17-00 and WAC-173-303, "Permitting of Waste Treatment, Disposal Facilities."

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	CWO W-120	MANHOLE 14 REPLACEMENT (CWO)	100	91965
	90G-GFW-003	B PLANT CHEM SEWER ENV UPG (91-D-171)	850	91964
	W-004	B PLANT AMU AREA UPGRADES	820	92100
	W-008	B PLANT CHEMICAL SEWER NEUTRALIZATION SY	1040	92101
	W-098	HAZARDOUS WASTE STORAGE FACILITY (CWO)	300	92099
LINE ITEMS				
	89L-GFW-007	B PLANT BCP TREATMT FAC (89-D-172)	14700	91102
	90L-GFW-010	B PLANT ENV COMPLIANCE UPGS (89-D-172)	3500	91399
	91L-GFW-024	B PLANT RAD & CONTAINMENT UPGS(89-D-172)	12000	91103

Prepared by: ML GRYGIEL/GA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9127-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0042
FACILITY: TREATMENT - B PLANT
TITLE: B PLANT CONTINUITY OF OPERATIONS (WID)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: DOE, RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	3285	5078	6984	4902	7827	10533	9499	9583	6396
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	3285	5078	6984	4902	7827	10533	9499	9583	6396

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00
5/31/96	>*INITIATE PRETREATMENT OF NEUTRALIZED CURRENT ACID WASTE		M-02-01

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on FY 1990 and FY 1991 guidance level funding.

This ADS funds continuity of operations activities which are required

FY 92 ADS ID: 9127-1D-0

to hold B Plant as a viable option for pretreatment of double-shell tank waste. Continuity of operations described herein, includes program administration and support activities, plant management, integrated scheduling and planning, engineering configuration, plant configuration overview and control, environmental compliance, training and accreditation, facility SAR preparation and issuance and plant systems testing support. Additionally, B Plant provides support services to WESF which includes cooling water, liquid and solid waste handling, BPA electricity, and laundry services. Without required funding in FY 1990, B Plant cannot support TPA Milestone M-02-01, "Initiate Pretreatment of Neutralized Current Acid Waste-10/93", as currently defined. At presently identified levels of FY 1991 Bush Budget funding, the SAR preparation is partially funded and the plant systems testing support is not funded. The cumulative effect of FY 1990 and FY 1991 Pretreatment funding shortfalls results in approximately a 30 month projected schedule slippage in the completion of TPA milestone M-02.
RCRA Regulatory Driver 9127-1D-0: This ADS describes the administration/support activities and staff necessary for ensuring B Plant's compliance with applicable permitting and performance standards governed by RCRA and other environmental protection laws and regulations (WAC-173-303-395 (2)).
FUNDING BASIS:
Funding shortfalls of approximately $2 Million have occurred in this ADS in both fiscal years 1990 and 1991. Primary causes for the FY 1991 target to requirement increase are Double Shell Tank Program administration and integrated scheduling in addition to increased SAR requirements, which were partially unfunded in FY 1990. Growth of approximately $1 million from FY 1991 to FY 1992 requirements results from increased system testing, program management and engineering configuration, and training accreditation to accommodate the increase in staff. Expense support based on historical plant cost data (Condition Standby and Surveillance).

PRIORITY RATIONALE:
In compliance with the DOE Five Year Plan, Priority 1 workscope includes those on-going activities which, if terminated, could result in significant program and resource impacts. Continuity of operations is clearly prerequisite in meeting safe on-going plant operations within the boundaries of State and Federal hazardous waste management requirements and DOE Orders. If not funded, B Plant cannot be maintained as a viable option for DST waste pretreatment or ensure total compliance with Federal and State regulatory commitments. In addition, continuity of operations are inherent in successful accomplishment of the TPA milestones.

LEVEL OF CONFIDENCE RATIONALE:
M - Funding level confidence is based on historical plant cost information during a standby mode, not under full operation. Significant

growth will occur between FY 1990 and FY 1992.

ACCOMPLISHMENTS TO DATE:
1) Development of B Plant Integrated Schedules.
2) Establishment of the Evaluation and Compliance Group to overview State and Federal Regulatory commitments applicable to B Plant.
3) Establishment (co-sponsor) of the DST mission.

ACTIVITY ALTERNATIVES:
- o B Plant could be placed in a safe standby/surveillance status continuing to provide support to WESF (a priority 1 activity) for ongoing storage of cesium and strontium capsules. However, there are safety and environmental impacts associated with not funding this activity. Staff and management required to support safe disposal of solid and liquid wastes is funded by this ADS.
- o Defer pretreatment of DST waste which would result in noncompliance with the Hanford Federal Facility Agreement and Consent Order and the Hanford Environmental Impact Statement (EIS).
- o Construct a new stand-alone facility to perform DST pretreatment operations. Estimated cost of construction for new facility is $590 Million (Ref. WHC-SP-04464, "Assessment of Double-Shell Tank Waste Pretreatment Options," March 1989.

Prepared by: ML GRYGIEL/GA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9128-1D-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT- B PLANT
TITLE: B PLANT PRETREATMENT (W1D)
PRIORITY: 2
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): L
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0042
NEPA: N/A
DOE PROGRAM: EM
TPA MS: M-02
CATEGORY: WM
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	1661	593	170	1323	890	647	0	0
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	1661	593	170	1323	890	647	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNALLY BEGINNING CY 1992		M-02-02
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00
5/31/96	>*INITIATE PRETREATMENT OF NEUTRALIZED CURRENT ACID WASTE (NCAW)		M-02-01
12/31/99	>*HWVP STARTUP		M-03

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding in FY 1990 and FY 1991.

This ADS consists of preparation of the 212-B Cask Station for shipment

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9128-1D-0

of washed NCAW solids to support HWVP waste form qualification testing, technology and miscellaneous expense items, such as jumpers, required for B Plant pretreatment preparations and processing to provide feed for the Hanford Waste Vitrification Plant (HWVP).

TPA milestone M-02-00 specifies the startup of B Plant. Milestone M-02-01 specifies that NCAW will be processed first.

FUNDING BASIS:
Preliminary estimate based on historical plant and fabrication costs.

The increased funding requirements from FY 1991 to FY 1992 requirements are due to fabrication of jumpers required for NCAW pretreatment and preparation for the 212-B Cask Station for waste form qualification (WFQ).

The decrease from FY 1991 Target to FY 1991 Required funding is due to deferral of the rail spur stabilization and fabrication of jumpers. If funding is not available in FY 1991 all activity except WFQ will be deferred. Presently identified Bush Budget funding for FY 1991 provides for a very low level of support for WFQ only. Technology development, rail spur stabilization and jumper fabrication are not supported.

PRIORITY RATIONALE:
TPA support activities are defined as priority 2.

LEVEL OF CONFIDENCE RATIONALE:
Low due to preliminary nature of estimate.

ACCOMPLISHMENTS TO DATE:
None.

ACTIVITY ALTERNATIVES:
Defer pretreatment of the DST wastes resulting in noncompliance with Hanford Federal Facility Agreement and Consent Order and Hanford Environmental Impact Statement.

If technology support for WFQ testing is not funded in FY 1991, pretreated NCAW solids transfer to PNL for HWVP waste form qualification testing would be delayed, resulting in a delay to the start of HWVP operat

Prepared by: ML GRIGIEL/GA MEYER 5/2/90

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9129-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0042
FACILITY: TREATMENT - B PLANT
TITLE: OPERATIONS- TREATMENT (W1D)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: DOE, RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1992 BUD	1993 REQ	1994 REQ	1995 REQ	1996 REQ	
OPERATING	22618	19943	29271	29268	36517	40616	41672	42427	42998
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	22618	19943	29271	29268	36517	40616	41672	42427	42998

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00
5/31/96	>*INITIATE PRETREATMENT OF NETURALIZED CURRENT ACID WASTE		M-02-01

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding in FY 1990 and FY 1991.

This ADS funds operations-treatment activities which are required to hold B Plant as a viable option for pretreatment of double-shell tank

FY 92 ADS ID: 9129-1D-0

waste. Administrative activities for B Plant are described in ADS #9127-1D. Operations-treatment identified herein, includes the following: B Plant Facility Operations and Surveillance, Maintenance, Work Control, Plant Engineering, Analytical Laboratory support, RPT support, Quality Assurance (engineering and quality control) support, Independent Safety Oversight, and Plant/Program assessments. Without required funding beginning in FY 1990, B Plant cannot support the TPA milestone, M-02, "Initiate Pretreatment of NCAW-10/93" as currently defined. Approximately a 30 month schedule slippage is projected.

RCRA Regulatory Driver:
This ADS describes the operations/maintenance activities and staff necessary for ensuring B Plant's compliance with applicable permitting and performance standards governed by RCRA and other environmental protection laws and regulations (WAC-173-303-395 (2)).

FUNDING BASIS:
Expense support based on historical plant cost data (Condition Standby and Surveillance). Growth from FY 1991 to FY 1992 requirements was due to burial assessments and increases in operations and maintenance resulting from funding shortfalls in FY 1990.

Main contributors to the increase between the Target and Required funding for FY 1991 are increased maintenance requirements, additional training requirements, programmatic assessments and canyon clean out activities. During the years FY 1993 through FY 1996 there will be increases in burial assessments and Facility Operations and Surveillance. Total staff will increase from 290 in FY 1992 to 319 in FY 1996.

PRIORITY RATIONALE:
In compliance with the DOE Five Year Plan, subject Priority 1 workscope includes those on-going activities which, if terminated, could result in significant program and resource impacts. Operational Assurance is necessary in meeting safe on-going plant operations as well as maintaining compliance with State and Federal hazardous waste management requirements and DOE Orders. If not funded, B Plant can neither ensure total compliance with applicable Federal and State regulatory commitments nor be maintained as a viable option for DST waste pretreatment.

LEVEL OF CONFIDENCE RATIONALE:
M - Funding level confidence is based on historical plant cost information.

ACCOMPLISHMENTS TO DATE:
1) Implemented Job Control System Phase II, September 1989. An updated Plant Tracking System was installed for B Plant which features a system warning when 2 or more work packages are issued on a plant vital system.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9129-1D-0

2) Issued B Plant Viability Study (Commissioned Scientific Application Int'l Corp. to perform a code compliance analysis of B Plant).
3) Co-sponsored preparation and issuance of WHC-SP-0464, "Assessment of Double-shell Tank Waste Pretreatment Options, " March 1989.
4) Completed Plant Instrumentation Surveillance and Evaluation System (PISCES) calibrations on the B Plant Steam Condensate beta monitor loop.

ACTIVITY ALTERNATIVES:

- Place B Plant in safe standby/surveillance status continuing to provide support (steam, BPA, waste burial, etc.) to WESF for ongoing storage of cesium and strontium capsules. Pending final disposal or relocation of WESF capsules, additional D&D costs would have to be considered in out-year budget planning.
- Defer pretreatment of DST waste which would result in noncompliance with the Hanford Federal Facility Agreement and Consent Order (TPA), and the Hanford Environmental Impact Statement (EIS).
- Construct a new stand-alone facility to perform DST pretreatment operations. Estimated cost of construction for the new facility is $590 Million (Ref. WHC-SP-04464, "Assessment of Double-Shell Tank Waste Pretreatment Options," March 1989).

Prepared by: ML GRYGIEL/CA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9130-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0042
FACILITY: TREATMENT - B PLANT
TITLE: PROJECT SUPPORT- PLANT AND PROCESS (W1D)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: DOE, RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991		1992	1993	1994	1995	1996	
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	2199	3000	5046	2190	2617	3596	3713	3116	3138
CAPITAL EQ	897	2800	1596	1393	2508	2420	1690	1475	1000
GP PROJECTS	500	2150	1950	1702	7006	1920	2000	2000	2000
LINE ITEMS									
TOTAL	3596	7950	8592	5285	12131	7936	7403	6591	6138

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00
5/31/96	>*INITIATE PRETREATMENT OF NEUTRALIZED CURRENT ACID WASTE		M-02-01

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding in FY 1990 and FY 1991.

This ADS funds project support for ongoing non-Line Item activities

FY 92 ADS ID: 9130-1D-0

which are required to hold B Plant as a viable option for pretreatment of double-shell tank waste. Project support identified herein includes support to expense funded projects, Capital Equipment Not Related To Construction and General Plant Projects which have been identified as priority 1 workscope. Expense support for projects under directive prior to FY 1990 (Projects B-463, B-479, B-625) is also included in this activity.

Regulatory driver justification for RCRA:
Although state implemented RCRA requirements as defined in WAC-173-303 do not directly apply to B Plant facility and process upgrades, it is necessary for B Plant to be in compliance with applicable performance standards governed by other environmental protection laws and regulations such as those set by the Water Pollution Control Act (WAC-173-216) and Clean Air Act. Compliance with these other environmental laws and regulations is required by WAC-173-303-395, paragraph 2.

FUNDING BASIS:
Expense support is based on historical plant cost data (Condition Standby and Surveillance). Capital equipment consists of instrumentation upgrades, pumps, motors, agitators, spare condensers, jumper cutter (used in the reduction of mixed waste), and filters.

Required funding in FY 1991 would support a needed increase in technology activity for process and plant projects, capital equipment upgrades and 2 new GPP's needed for NCAW processing. At Bush Budget funding, expense and GPP funding in FY 1991 does not support projects W-027, B Plant NCAW - 271B HVAC Upgrades, W-065, B Plant WH/IX Process Control Valve Upgrades, and W-077, B Plant Custody Transfer Upgrades. These projects will be delayed one year, resulting in a delay to TPA milestone M-02-01 as previously described.

The decrease from FY 1991 to FY 1992 Required expense funding is due to reduced conceptual design activity supporting GPPs in the following years and transfer of Line Item expense support funding from this ADS to 9131-1D and 9133-1D to cover expense funding for W-002 and W-059, respectively. Staffing support peaks in FY 1992 at 43 man-years of WHC personnel.

PRIORITY RATIONALE:
Ongoing Priority 1 workscope activities would be terminated, resulting in significant program and resource impacts. Project support is necessary in meeting safe on-going plant operations as well as in maintaining compliance with State and Federal hazardous waste management requirements and DOE Orders. If not funded, B Plant can neither ensure total compliance with applicable Federal and State regulatory commitments nor be maintained as a viable option for DST waste pretreatment.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9130-1D-0

LEVEL OF CONFIDENCE RATIONALE:
Low - Funding level confidence is based on historical plant cost information and engineering studies.

ACCOMPLISHMENTS TO DATE:
1) Completed construction of B Plant mobile offices.
2) Completed construction of B Plant storage area fence.
3) Completed installation of a trailer to eliminate commingling of employees wearing SWP clothing with those not similarly protected.

ACTIVITY ALTERNATIVES:
- o Cancel on-going projects
- o Defer pretreatment of DST waste which would result in noncompliance with the Hanford Federal Facility Agreement and Consent Order (TPA), and the Hanford Environmental Impact Statement (EIS).
- o Construct a new stand-alone facility to perform DST pretreatment operations. Estimated cost of construction for new facility is $590 Million (Ref. WHC-SP-04464, "Assessment of Double-Shell Tank Waste Pretreatment Options," March 1989.)

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
		GPP/CWO RESERVE		90165
	W-XXX	B PL.SETTLE-DECANT CONTR VALVE UPGRADE	788	91959
	W-XXX	B PLANT CESIUM STORAGE CONTROL VALVE UPG	300	92055
90G	GFW-056	B PLT NCAW-LLWC/PHPF CTR VL UPG(90D-171)	1200	91095
91G	GFW-027	B PLANT NCAW - 271B HVAC UPGR (91D-171)	950	91096
91G	GFW-094	291-B FILTER INSTR TIE-IN (91-D-171)	300	91937
92G	GFW-065	B PLANT WH/IX PROC CTL VLV UPG(92-D-171)	1000	91955
92G	GFW-077	B PLT CUSTODY TRANSFER UPGR (92-D-171)	1000	91097
92G	GFW-102	221-B GALLERY EXHAUST (92-D-171)	1000	91956
92G	GFW-103	B PLANT ON-DECK SAMPLING UPG (92-D-171)	1000	91957
92G	GFW-104	B PLANT OPERATIONS SUPPORT FAC(92-D-171)	1200	91958
B-625		B PLANT SAND FILTER VENT DUCT UPGRADE		92105
W-XXX		R-13 SWP/COMMINGLING MODIFICATIONS (CWO)	200	92104
W-XXX		OUTYEAR UNIDENTIFIED GPP'S AND CWO'S		92106

Prepared by: ME GRYGIEL

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9131-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: TREATMENT - B PLANT
TITLE: PROJECT SUPPORT- CANYON CRANE (W1D)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: DOE, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	58	0	190	190	241	250	360		
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	1478	4300	4300	4300	5822	700	300		
TOTAL	1536	4300	4490	4490	6063	950	660	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
1/31/90	>START DESIGN		
8/31/90	>START PROCUREMENT		
2/28/91	>START CONSTRUCTION		
9/30/91	>COMPLETE DESIGN		
9/30/92	>COMPLETE PROCUREMENT		
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
6/30/94	>COMPLETE CONSTRUCTION		
10/31/94	>COMPLETE PROJECT		
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00
5/31/96	>*INITIATE PRETREATMENT OF NEUTRALIZED CURRENT ACID WASTE		M-02-01

== NARRATIVE ==

ACTIVITY DESCRIPTION:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9I31-1D-0

* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding for FY 1990 and FY 1991.

This ADS provides a new remotely controlled bridge crane to replace the existing 50 year old crane in the B Plant canyon. The new crane will be operated remotely from a crane control console located in a non-radiation area of B Plant via a radio link. The crane will support B Plant waste pretreatment operations of Double-Shell Tank (DST) waste and the ultimate decommissioning of the plant. In addition, the project will construct a crane maintenance facility next to the east end of the existing canyon building and will contain a canyon crane decontamination cell, which will be isolated from the canyon by a shielding door. This facility will also contain aqueous make-up (AMU) systems for preparing crane decontamination solutions, and the ventilation, mechanical, and electrical support systems. The existing crane will be decontaminated, disassembled, and removed through this facility for burial.

FUNDING BASIS:
The increase in funding requirement from FY 1991 to FY 1992 is due to an increase in construction and procurement activities.

Preparation and issuance of this new ADS to cover expense funding for Line Item W-002 is the reason for the expense funding increase from the FY 1991 Target to the FY 1991 Required. Expense funding was previously identified in ADS 9127-1D. Staffing required for this project is 3 to 4 man-years of WHC personnel.

Source and Date: Addendum I, Conceptual Design Report
SD-W-002-CDR-002, Rev.0, dated July 1988
Approved Project Management Plan
8956060, dated October 1989

PRIORITY RATIONALE:
Ongoing safe operation of the B Plant facilities is fully dependent upon the availability of the canyon crane to support cell maintenance and equipment changeouts. The existing canyon crane is 50 years old and experiences frequent component failures and operability problems. This project improves the B Plant canyon crane operating efficiency and reliability, reduces crane operating and maintenance costs, minimizes crane downtime, eliminates the need to custom fabricate replacement parts, and will support the As Low As Reasonably Achievable (ALARA) goal during the upcoming pretreatment operations mission. The crane maintenance facility will provide a non-radiation environment in which to assemble the new canyon crane, with easy access to the canyon and allow separate areas for crane decontamination and maintenance in future pretreatment operations. In addition, the existing canyon crane will

FY 92 ADS ID: 9131-1D-0

be dismantled and removed through this facility.

LEVEL OF CONFIDENCE RATIONALE:
Medium. The budget projections for the construction, decontamination, and burial of the old crane is medium. This confidence level will increase following the completion of definitive design and when burial forecasts and rates are better defined.

ACCOMPLISHMENTS TO DATE:
1) In September/October 1985 a condition inspection and evaluation of the Whiting 75/10 ton canyon crane was made by Crane Consultants, Inc. The report identified many repairs or replacements that were needed and evaluated the crane for continued operation of another 20 years. In its summation, a new, state of the art, bridge crane - designed specifically for a high level radiation environment was the only logical choice for long term use.
2) Completed the Engineering Study "B Plant Canyon Crane Replacement Study", SD-602-ES-001, January 1987.
3) Completed a regulatory analysis review of environmental regulations for project B-602 in September 1987.
4) Completed the Functional Design Criteria "B Plant Canyon Crane Replacement, Project W-002", SD-602-FDC-001, Rev. 1, December 1987.
5) Completed the Conceptual Design Report, Addendum I, Project W-002, B Plant Canyon Crane Replacement, SD-W002-CDR-002, Rev. 0, July 1988.
6) Completed the Approved Project Management Plan, Project W-002, B Plant Canyon Crane Replacement, 8956060, October 1989.

ACTIVITY ALTERNATIVES:
1) Construct and install a new B Plant canyon crane, but do not build a crane maintenance facility. This alternative is feasible but not practical. It would require a section of the B Plant roof to be removed for positioning of the new canyon crane. Contamination to the environment would be unacceptably high.
2) Cancel line item project W-002, an ongoing project, and upgrade the existing 50 year old crane. Upgrading the canyon crane would not be feasible.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	90L-GFW-002	B PLT CANYON CRANE REPL (90-D-173)	12600	90163

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9131-1D-0

Prepared by: ML GRYGIEL/GA MEYER

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9132-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: DISPOSAL- B PLANT
TITLE: SOIL COLUMN DISPOSAL PLAN PROJECTS (W1D)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-17
REGULATORY DRIVERS: RCRA, DOE, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	718	718	378	378	378		
CAPITAL EQ					1000				
GP PROJECTS									
LINE ITEMS						2000			
TOTAL	0	0	718	718	1378	2378	378	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>ISSUANCE OF BAT STUDIES		
6/30/95	>*COMPLETE LIQUID EFFLUENT TREATMENT FACILITIES/UPGRADES FOR ALL PHASE I STREAMS		M-17-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding for FY 1990 and FY 1991.

Regulatory driver justification for RCRA: Although state-implemented RCRA requirements as defined in WAC-173-303 do not apply to the BCS and BCE streams which have been determined to be non-dangerous waste, it is necessary for B Plant to be in compliance with applicable performance standards governed by other environmental protection laws and regulations

FY 92 ADS ID: 9132-1D-0

such as those set by the Water Pollution Control Act (WAC-173-216). Compliance with these other environmental laws and regulations is required by WAC-173-303-395, paragraph 2.

W-107, B Plant Steam Condensate Treatment Upgrades - Provides B Plant with upgrades designed to treat the B Plant Steam Condensate (BCS) to Best Available Technology (BAT) Standards.

W-108, B Plant Chemical Effluents Upgrades - Provides B Plant with upgrades designed to treat the B Plant Chemical Effluents (BCE) to Best Available Technology Standards. This will be proposed as a FY 1993 line item project. This ADS will be updated to include cost and schedule for engineering studies, functional design criteria, definitive designs, etc..

FUNDING BASIS: Preliminary Best Available Technology studies. The increased funding between Target and Required in FY 1991 is a result of this being a new ADS covering Projects W-107 and W-108.

The decrease in required funding from FY 1991 to FY 1992 is a result of reduced expense funded project support needs in FY 1992 for B Plant Steam Condensate (BCS) Upgrades in FY 1992. Staffing support is projected to peak in FY 1993 at approximately 8 man-years of WHC personnel.

PRIORITY RATIONALE:
These proposed upgrades support TPA Milestones. Disposal actions are required by State and Federal regulatory agreements and commitments to minimize near-term risk on workers, the public and the environment (Reference DOE 5-Year Plan, pg. 129). As Priority 2 activities, these projects do not fall on the B Plant critical path.

LEVEL OF CONFIDENCE RATIONALE:
Low. BAT studies have not been issued for W-107 and W-108.

ACCOMPLISHMENTS TO DATE:
Prepared and issued the "Annual Status Report of the Plan and Schedule to Discontinue Disposal of Contaminated Liquids into the Soil Column at the Hanford Site" (ADS 9126-1D).

ACTIVITY ALTERNATIVES:
Alternatively, B Plant would discharge potentially hazardous liquid waste to the soil column. This option is not in compliance with the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-17-00 and WAC-173-303, "Permitting of Waste Treatment, Disposal and Storage Facilities."

If subject projects are not supported, B Plant will continue to transfer

FY 92 ADS ID: 9132-1D-0

potentially contaminated hazardous liquid waste to Tank Farms for storage. Since Tank Farms is unable to accept the volume of waste generated during actual plant operations, B Plant would be forced to remain in a standby/surveillance mode in order to keep waste volumes to a minimum. Maintaining a standby/surveillance status will seriously impact B Plant as being a viable pretreatment facility for NCAW and post NCAW processing.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	93L-GFW-108	B PLANT CHEM EFFL (BCE) TREATMENT UPGS	2000	92054

Prepared by: 3/14/90
ML GRYGIEL/GA MEYER

Approved by: 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9133-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD. FY 91 ADS ID: RL-0042
FACILITY: TREATMENT-.B PLANT
TITLE: PROJECT SUPPORT- SAFETY CLASS VENT. UPGRADES (W1D)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: DOE, RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	228		1150	1150	230	200	160	160	
CAPITAL EQ	30								
GP PROJECTS									
LINE ITEMS					6600	7300	5300	500	
TOTAL	258	0	1150	1150	6830	7500	5460	660	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
11/30/91	>START DEFINITIVE DESIGN		
3/31/92	>AWARD PROCUREMENT ITEMS		
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
1/31/93	>COMPLETE DEFINITIVE DESIGN		
1/31/93	>START CPAF CONSTRUCTION		
1/31/93	>START ENGINEERING/INSPECTION		
1/31/93	>START FIXED PRICE CONSTRUCTION		
5/31/93	>COMPLETE PROCUREMENT		
4/30/94	>COMPLETE FIXED PRICE CONSTRUCTION		
6/30/94	>COMPLETE CPAF CONSTRUCTION		
6/30/94	>COMPLETE ENGINEERING/INSPECTION		
6/30/94	>START OF CONSTRUCTION		
5/31/95	>COMPLETE PROJECT		
6/30/95	>COMPLETE B PLANT CATEGORY 1 VENT UPGRADE		
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9133-1D-0

5/31/96 >*INITIATE PRETREATMENT OF NEUTRALIZED CURRENT ACID WASTE M-02-01

== NARRATIVE ==========

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narratives are based on guidance level funding for FY 1990 and FY 1991.

The B Plant Safety Class Ventilation Upgrade, Project W-059, will furnish B Plant with a safety class 1 exhaust ventilation system in accordance with DOE Order 6430.1A and the Hanford Plant Standards, Standard Design Criteria SDC-4.1 (Rev. 11), "General Design Criteria". This project provides standby power diesel generation, qualified exhaust fans, monitoring and control systems, and exhaust stack. Equipment provided by this project will be located in a poured-in-place, reinforced concrete building. This exhaust ventilation system will support continued safe operation of B Plant, waste pretreatment operations of Double-Shell Tank Waste and the ultimate decommissioning of the plant.

Regulatory driver justification for RCRA:
Although state implemented RCRA requirements as defined in WAC-173-303 do not directly apply to B Plant facility ventilation upgrades, it is necessary for B Plant to be in compliance with applicable performance standards governed by other environmental protection laws and regulations such as those set by the Clean Air Act. Compliance with these other environmental laws and regulations is required by WAC-173-303-395, paragraph 2.

FUNDING BASIS:
Generation of this new ADS, covering expense funding for Line Item (LI) W-059, is the reason for the expense funding increase from FY 1991 Target to the FY 1991 Required. Expense funding was previously identified in ADS 9127-1D. The increase in Required funding from FY 1991 to FY 1992 is due to the start of definitive design and procurement. Peak support (FY 1992 and FY 1993) will be 3 man-years (WHC personnel).

Source and Date: Preliminary project estimate provided 1/30/90 by Kaiser Engineering Hanford (KEH).

PRIORITY RATIONALE:
The B Plant exhaust ventilation system has been identified as a safety class 1 system, which would be an ongoing project in FY 1992 and would remain operational during and following a design basis accident (DBA) per SDC-4.1. The existing B Plant exhaust ventilation will not remain functional following a DBA. Project W-059 is required to minimize on-

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9133-1D-0

site and off-site potential impacts to the environment and its inhabitants resulting from a DBA. Continued safe operation of B Plant is dependent upon modernization of the exhaust ventilation system to SDC-4.1 (Rev. 11) criteria.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is low. Budget projection for definitive design, procurement, construction and engineering/inspection is low based upon the preliminary nature of the reference estimate. The confidence level will increase following completion of the conceptual design report (4/90).

ACCOMPLISHMENTS TO DATE:
1) Safety Class I determination of B Plant exhaust ventilation system completed April 1989. SD-WM-SA-002, "B Plant Safety System Seismic Evaluation Program", T.R. LaSalle, 26 April, 1989.
2) "B Plant Structure Qualification Interim Report", SD-WM-SA-001, G.R. Wagenblast Nov. 1989 identifies the required need to upgrade exhaust ventilation stack to function during and following a DBA.
3) Issued Functional Design Criteria for Project W-059 on Dec. 1989, "B Plant Safety Class Ventilation Upgrade", WHC-SD-W059-FDC-001.

ACTIVITY ALTERNATIVES:
Do not proceed with project W-059. Modify existing exhaust ventilation fans, control and monitoring systems, exhaust plenums, and exhaust stack to comply with Safety Class 1 criteria identified in SDC-4.1. Engineering Study estimated this cost at $6 million. However, this option is not feasible since the existing 221-B Canyon Ventilation System would need to be shut down for modifications. This condition would not allow safe operation of B Plant. Shut down of the Canyon Ventilation System for an extended period would result in release of radionuclides to the environment.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
LINE ITEMS					
	92L-GFW-059	B PLANT SAFETY CLASS VENTILATION UPGS	19700	91099	

Prepared by: MU GRYGIEL/GA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9134-1D-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT- B PLANT
TITLE: PROJECT SUPPORT- TRUEX (W1D)
PRIORITY: 2
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: ORD, DOE
CONFIDENCE LEVEL (H/M/L): L
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: NEW
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: M-02
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	30	0	2900	0	2900	2500	1500	1000	1000
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS								10000	20000
TOTAL	30	0	2900	0	2900	2500	1500	11000	21000

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
4/30/92	>INITIATE PREPARATION OF CONCEPTUAL DESIGN		
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
2/28/93	>SUBMIT CDR TO DOE FOR VALIDATION		
1/05/95	>INITIATE DEFINITIVE DESIGN		
4/30/96	>INITIATE CONSTRUCTION		
3/31/99	>COMPLETE CONSTRUCTION/ATP/DTP		
10/31/99	>SYSTEM OPERATIONAL		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation. Milestones and narrative are based on guidance funding for FY 1990 and FY 1991.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9134-1D-0

Provides B Plant facility upgrades necessary to pretreat transuranic (TRU) double-shell tank wastes prior to final disposal. This project is necessary to support the treatment and disposal of TRU wastes (NCRW, PFP, and CC) and long-term continued operation of HWVP. Removal of existing equipment and decontamination of cells will be conducted per ADS 9135-1D.

FUNDING BASIS:
The need to accelerate this project was identified subsequent to the issuance of the FY 1991 ADS's. The increase in funding from the FY 1991 Target to Requirement is a result of identifying required funding for this new project. Although TRUEX is required for post-NCAW processing, no funding has been allocated in FY 1991 due to limited resources for Priority 2 activities.

Source and Date: Engineering Study WHC-SD-W095-ES-001, Rev. 0, "TRUEX Implementation at B Plant", Nov. 28, 1989. Expense support for this project is based upon project support activities. Staffing support for this project is still being evaluated.

PRIORITY RATIONALE:
If this project is not supported, treatment and disposal of TRU wastes would take several more years to accomplish. This impacts commitments with EPA, Washington DOE, and DOE disposal commitments as described in the Hanford Federal Facility Agreement and Consent Order.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is low. Project estimate is base upon the Engineering Study, WHC-SD-W095-ES-001, Rev 0, dated November 28, 1989, and short form data sheet (Schedule 44) dated January 1990. A ROM cost estimate is as follows:

o	B Plant SAR Revision	$ 1,300,000
o	Part B Permit Revision	700,000
o	Engineering	29,200,000
o	Construction	100,900,000
o	Contingency (38%)	50,500,000
		$183,000,000
*Less amount included in 9135-1D		(35,000,000)
o	TRUEX TEC	$148,000,000

*The cost estimate includes about $23M for B Plant cell cleanout, equipment removal, decontamination and disposal activities to prepare the cells for installation of new equipment. An additional $12M is included for lining cells with protective materials. ADS 9135-1D

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9134-1D-0

specifies the cell cleanout and lining portion ($35 Million).

ACCOMPLISHMENTS TO DATE:
Completed Engineering Study WHC-SD-W095-ES-001, Rev. 0, "TRUEX Implementation at B Plant", November 28, 1989.

ACTIVITY ALTERNATIVES:
1) Defer pretreatment and leave wastes in double-shell tanks. Non-compliance with the Hanford Federal Facility Agreement and Consent Order, and Hanford Environmental Impact Statement would result. May impact hot startup of HWVP, TPA Milestone M-03.
2) Construct new facility to conduct pretreatment of DST TRU wastes. Estimated cost of construction for new facility is $590 million (Ref. WHC-SP-0464, "Assessment of Double-Shell Tank Waste Pretreatment Options", WHC March 1989).

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	95L-GFW-095	B PLANT TRUEX UPGRADE	148000	91961

Prepared by: ML GRYGIEL/GA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9135-1D-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: TREATMENT- B PLANT
TITLE: PROJECT SUPPORT-CELL CLEANOUT AND LINING (W1D)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: ORD, DOE
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	1500	500	1100	500	600	1000	1000
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS							3000	8000	11000
TOTAL	0	0	1500	500	1100	500	3600	9000	12000

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/92	>*COMMITMENTS FOR PRETREATMENT OF ADDITIONAL TANK WASTES BIENNIALLY BEGINNING CY 1992		M-02-02
1/05/94	>INITIATE DEFINITIVE DESIGN FOR B PLANT TRUEX CELL EQUIPMENT REMOVAL/DISPOSAL, CLEANING, AND SPILL CONTROL LINERS		
5/31/96	>*INITIATE B PLANT OPERATIONS FOR PRETREATMENT OF DOUBLE SHELL TANK WASTE		M-02-00
5/31/96	>*INITIATE PRETREATMENT OF NEUTRALIZED CURRENT ACID WASTE		M-02-01
9/30/98	>COMPLETE CONSTRUCTION OF B PLANT TRUEX CELL LINERS		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient Pretreatment funding at the FY 1991 Bush Budget guidance, this and all other TPA milestones are subject to renegotiation.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9135-1D-0

Milestones and narrative are based on guidance funding for FY 1990 and FY 1991.

This line item proposed for late validation, provides for B Plant cell cleanout and lining. It consists of the following:

W-128, B Plant Cell Cleanout, Lining and Spill Control; Provides for cell cleanout, construction and installation of cell liners, and leak detection system for B Plant TRUEX process cells. The existing process equipment will be removed from the cells, decontaminated and, if applicable, disposed of in the solid waste burial grounds. The cells will then be lined with stainless steel and leak detection and spill control equipment installed. Although TRUEX is not critical to HWVP startup, TRUEX is critical to minimizing downtime at HWVP when vitrifying post-NCAW waste.

FUNDING BASIS:
This project was identified subsequent to the preparation of the FY 1991 ADS's. The increase in FY 1991 target to required funding is due to identifying the funding requirements for this new project. Staffing for this project is still being evaluated.

Source and Date: Engineering Study "TRUEX Implementation at B Plant", 12/89.

PRIORITY RATIONALE:
Required to support HWVP startup in December 1999 and minimize HWVP standby time.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence is low. Budget projections are very preliminary at this point. Confidence level will increase when the FDC, and CDR are completed in FY 1991.

Project estimate is base upon the Engineering Study, WHC-SD-W095-ES-001, Rev 0, dated November 28, 1989, and short form data sheet (Schedule 44) dated January 1990. A ROM cost estimate is as follows:

o	B Plant SAR Revision	$ 1,300,000
o	Part B Permit Revision	700,000
o	Engineering	29,200,000
o	Construction	100,900,000
o	Contingency (38%)	50,500,000
		$183,000,000
*Less amount included in 9134-1D		(148,000,000)
o	Cell Cleanout & Liner TEC	$35,000,000

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9135-1D-0

*The cost estimate includes about $148M for B Plant cell equipment procurement and installation activities as described in ADS 9134-1D, TRUEX.

ACCOMPLISHMENTS TO DATE:
Completed TRUEX Engineering Study, 12/89.

ACTIVITY ALTERNATIVES:
Do not clean out B Plant cells. TRUEX would not be supported, resulting in the inability to treat and dispose of TRU wastes on a schedule which supports commitments with EPA, Washington DOE, and the U.S. DOE.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	94L-GFW-128	DST WASTE DISPOSAL	35000	90164

Prepared by: ML GRYGIEL/GA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9150-1H-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0009,0010
FACILITY: TREATMENT
TITLE: DEFENSE HIGH-LEVEL WASTE TECHNOLOGY (W1H)
PRIORITY: 2 NEPA: EIS
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-02
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		11000	26700	17122	23910	37345	42839	22784	17983
CAPITAL EQ		320	1300	385	450	450	450	450	450
GP PROJECTS									
LINE ITEMS									
TOTAL	0	11320	28000	17507	24360	37795	43289	23234	18433

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/90	>COMPLETE CORE SAMPLING OF 3 DST'S	WHR90.02	
7/31/90	>REPORT ON FORCES FROM MIXER PUMP JETS	WHR90.01	
8/31/90	>NCRW PRETREATMENT CONCEPTUAL FLOWSHEET	WHR90.03	
9/30/91	>CORE SAMPLE 5 DST'S		
9/30/91	>TRUEX PILOT PLANT DESIGN		
9/30/92	>CORE SAMPLE 4 DST'S (ANNUAL FY 92-94)		
9/30/92	>101-AZ RETRIEVAL SYSTEM DESIGN		
6/01/93	>STARTUP TRUEX PILOT PLANT DEMO		
9/30/93	>PROCURE/INSTALL 101-AZ MIXER PUMPS		
2/28/94	>NCRW PRETREATMENT PILOT TEST		
11/30/94	>CC ORGANIC DESTRUCTION PILOT TEST		
3/31/95	>PFP PRETREATMENT PILOT TEST		
5/31/95	>101-AZ 2 PUMP RETRIEVAL PROCESS TEST		
9/30/95	>CORE SAMPLE 3 DST'S (ANNUAL FY 95-96)		
5/31/96	>NCRW RETRIEVAL SYSTEM PROCESS TEST		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9150-1H-0

ACTIVITY DESCRIPTION:
FY1990 appropriation of $8,635,000 has been received subsequent to the initial congressional budget of zero and is shown in the task detail on page 4.

Sample, characterize, develop pretreatment and retrieval technology and demonstrate the systems needed to retrieve and pretreat double-shell tank (DST) waste and supply an acceptable feed to the Hanford Waste Vitrification Plant (HWVP). The five DST waste types are neutralized current acid waste (NCAW), neutralized cladding removal waste (NCRW), Plutonium Finishing Plant (PFP) waste, complexant concentrate (CC) waste and double-shell slurry (DSS).

Characterization is necessary to provide physical and chemical data to retrieval, pretreatment and disposal activities. Core samples taken and analyzed from each DST will supply the HWVP data required for equipment development and waste form qualification. Development of analytical techniques (e.g. mercury and noble metals) is also required to support the HWVP needs.

Retrieval technology development is necessary to mobilize, retrieve and transfer DST waste to pretreatment and disposal facilities. Technology will be developed for five prototype retrieval systems (NCAW, NCRW, CC [2], 102-AY tank heel). Tasks include evaluating the effects on tank components and vent systems, engineering studies, functional design criteria, conceptual design and definitive design, safety documentation, procurement and installation of necessary retrieval system equipment, and removal and burial of abandoned equipment. The technology will be demonstrated by conducting process tests for each prototypical system beginning with NCAW in DST 101-AZ.

Pretreatment processes will fractionate waste into high-level and low-level fractions as feed for vitrification and grout processing. NCAW will undergo solid-liquid separation in AR Vault followed by filtration and ion exchange processing in B Plant. Subsequent waste types will be processed in B Plant by sludge dissolution, solid-liquid separation and transuranic extraction (TRUEX) processing. CC waste will also require organic destruction. Tasks include process flowsheet development and the design, fabrication and installation of prototypical process equipment. Pilot plant tests will demonstrate the technology for these subsequent waste types.

Narrative and milestones are based on FY 1990 and FY 1991 Budget guidance funding. The available funding has been allocated for technology activities according to the following priorities: (1) supporting the AR Vault and B Plant demonstrations for pretreatment of NCAW (2) supporting startup of operations at HWVP (3) supporting the TRUEX process implementation at B Plant and (4) supporting continuity

of operations at B Plant and the HWVP. The funding shortfall of $4.8M in FY 1990 and $10.5M in FY 1991 has been replanned beginning in FY 1993 to prevent an unrealistic ramp-up in FY 1992.

FUNDING BASIS: Pretreatment costs are based on estimates documented in the 1988 Hanford Waste Management Technology Plan and development of pilot plant functional requirements in FY 1989. Retrieval costs are based on a conceptual design report (CDR) completed in FY 1989. Waste sampling and analysis estimates are based on historical costs.

The increase in funding from FY 1990 to FY 1991 Required reflects increased scope in the TRUEX pilot plant and 101-AZ retrieval system definitive designs and procurement commitments and additional core samples to support HWVP.

The funding increase in FY 1991 from Target to Required reflects (1) greater knowledge of design requirements (2) accelerated TRUEX pilot plant and retrieval system development to support a revised baseline (3) inclusion of 101-AZ four pump retrieval system development (4) retrieval system development for removal of heel from HWVP feed tank 102-AY (5) increased lab assessment charges and (6) carryover of FY 1990 shortfall.

The decrease from FY 1991 Required to FY 1992 Required reflects the scope changes supporting (1) a six month delay in startup of the TRUEX pilot plant and (2) a one year delay in the completion of the 101-AZ retrieval system process test. These delays provide a more reasonable funding profile and yet do not affect the overall DST waste disposal mission goals of initiating HWVP operations by December 1999 and providing a continual feed stream to HWVP.

The Funding Summary is based on operating expense funding for all identified prototypical retrieval systems and pretreatment pilot plants. Capital Line Item (LI) funding is, however, being pursued to reduce expense funding requirements and to provide a more stable funding source. Potential Line Items include (1) 101-AZ two pump retrieval system - FY92 LI (2) 101-AZ four pump retrieval system - FY93 LI (3) 102-AY retrieval system - FY93 LI and (4) CC East retrieval system - FY96 LI.

PRIORITY RATIONALE: Priority 2 was chosen because these activities (i.e. development of pretreatment process flowsheet and equipment and retrieval of DST waste) are required for initiation of pretreatment operations at B Plant, TPA Milestone M-02.

LEVEL OF CONFIDENCE RATIONALE: Medium was chosen to reflect a varying level of confidence (high to low) in the three primary activities. A high level of confidence exists for characterization based on historical costs. A medium level of confidence exists for retrieval based upon

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9150-1H-0

the recently completed CDR. A low level of confidence exists for pretreatment due to uncertainties in TRUEX process development. Detailed schedules exist for all activities. Uncertainty will exist until the successful demonstration of these pretreatment and retrieval technologies.

ACCOMPLISHMENTS TO DATE: (1) Completed conceptual design for NCAW retrieval system process test. (2) Completed characterization of the first NCAW sample from DST 101-AZ.

ACTIVITY ALTERNATIVES: Pretreatment options were assessed in FY 1989 and the baseline was changed to perform NCAW solids washing in the AR Vault and accelerate installation of the TRUEX process in B Plant. Alternatives include (1) pretreatment of all waste in B Plant which would increase HWVP life-cycle costs (2) deferment of technology which increases the life-cycle costs of the treatment and disposal facilities (3) reduction of characterization data which increases risks associated with HWVP melter design and waste form qualification (4) deletion of 101-AZ four pump retrieval system development which would delay M-02 four years if the two pump system is not successful and (5) deferment of 102-AY retrieval system development if FY 1990 studies indicate cleanout is not necessary.

Task/FY		1990	91R	91B	1992	1993	1994	1995	1996
Char	Exp	2064	3500	3208	2308	2308	2225	2170	1861
	Cap	180	150	60	150	150	150	150	150
Retr	Exp	2260	14500	4613	10855	23360	33397	15334	11872
	Cap	0	500	200	150	150	150	150	150
Pretr	Exp	2203	6000	7301	7747	8677	4217	3180	2150
	Cap	170	650	125	150	150	150	150	150
Prog	Exp	1758	2700	2000	3000	3000	3000	2100	2100
SUB	Exp	8285	26700	17122	23910	37345	42839	22784	17983
	Cap	350	1300	385	450	450	450	450	450
TOTAL		8635	28000	17507	24360	37795	43289	23234	18433

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-9-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9175-1P-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: GROUT DISPOSAL FACILITY
TITLE: GROUT DISPOSAL PROGRAM
PRIORITY: 2
B&R CODE: EW-30-10-35
A-106: W-062
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0185
NEPA: EIS
DOE PROGRAM: EM
TPA MS: M-01
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

CATEGORY: WM

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991		1992	1993	1994	1995	1996	
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	30189	37000	43920	33013	58725	48200	45200	47500	43700
CAPITAL EQ	1645	1300	1300	1135	1300	1100	1100	1100	1100
GP PROJECTS	1200	1200	920	803	1200	1200	1100	1200	1100
LINE ITEMS									
TOTAL	33034	39500	46140	34951	61225	50500	47400	49800	45900

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/91	>COMPLETE CONSTRUCTION OF SECOND GROUT VAULT (FIRST DST VAULT)	RL89.012	
5/31/91	>START PROCESSING DST WASTE		
9/30/91	>COMPLETE A TOTAL OF THREE GROUT CAMPAIGNS OF DST WASTE		M-01-01
12/31/93	>COMPLETE A TOTAL OF SIX GROUT CAMPAIGNS OF DST WASTE		M-01-02
12/31/94	>COMPLETE A TOTAL OF TEN GROUT CAMPAIGNS OF DST WASTE		M-01-03
12/31/95	>COMPLETE A TOTAL OF FOURTEEN GROUT CAMPAIGNS OF DST WASTE		M-01-00
12/31/97	>ADDITIONAL GROUT CAMPAIGN COMMITMENTS		M-01-05

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

FY 92 ADS ID: 9175-1P-0

Due to insufficient funding at the FY 1991 Bush Budget guidance, this and all Tri Party Compliance Agreement (TPA) milestones are subject to renegotiation.

Beginning in FY 1991, the Grout Disposal Program (GDP) will begin implementation of a major disposal action: grouting and near-surface final disposal of the low-level waste portion of Hanford's forty years accumulation of defense tank waste. This method of disposal is a significant step forward in the Department of Energy's (DOE's) plan for final disposal of tank wastes. In addition to putting this environmentally positive program in motion, the GDP will also play a major role in relieving pressure on the Double Shell Tank (DST) storage system capacity. The GDP's accomplishment of final disposal will support Hanford's chemical processing and waste management operations by maintaining acceptable storage volume using the existing 28 double-shell tanks.

The process of grouting DST waste, simply stated, involves blending (specified mixture) of dry materials (fly ash, Portland Cement, slag and diluent) with DST waste in a specified ratio and at a consistent and monitored flow rate to successfully immobilize DST waste in near-surface DST Grout Vaults.

The significant increase in Operating funding requirements from the FY 1991 Budget/Target to the FY 1991 and FY 1992 Required is primarily the result of additional DST Grout Vault Design criteria associated with the construction of grouted waste disposal facilities.

Capital funding requirements in FY 1990 are for (1) Portable Instrument Houses (PIHs) (2) Vault Ventilation System and (3) Double-Shell Tank 104-AP Feed Tank Upgrades. The above equipment and projects are required prior to start-up. The PIH will monitor and control the successful filling of grout vaults by providing the interface between a grout vault and the grout process facility. In addition, the PIH will function as a locally mounted device by being hard wired to the control room and the sensors in the vaults. The ventilation system will create a negative pressure during fill periods and provide for monitoring of airborne radioactive and hazardous material releases to the environment. The 104-AP feed tank, which is a General Plant Project, will provide a second staging/feed tank for the GDP. A second staging tank will allow adequate time for feed sampling and laboratory analysis prior to required processing activities.

Guidance level funding (Operating) in FY 1990 and FY 1991 will provide the GDP the ability to continue preparation efforts toward the processing of DST waste streams. Concurrently with supporting DST startup, this funding level (FY 1990 and FY 1990) has been determined to be inadequate

to support TPA milestone M-01-02 and subsequent milestones.

FUNDING BASIS:
The operational costs shown in this plan are based on historical costs incurred during the phosphate-sulphate waste (PSW) grouting campaign plus incremental funding associated with DST vault construction.

Costs (FY 1990 and FY 1991) associated with Capital Equipment Not Related to Construction (CENRTC) and General Plant Projects (GPP) have been validated by procurement and/or engineering estimates.

Staffing plans indicate an average level of 115 personnel associated with the program. As technical issues are resolved, staffing will show a decline starting with FY 1992. In addition, this funding level reflects current baseline cost for DST vault construction.

PRIORITY RATIONALE:
Work relating to GDP activities is classified as priority 2 since it is an integral part of the Hanford Federal Facility Agreement and Consent Order (TPA). In addition, the development of alternative final disposal technologies would not only delay the final disposal of DST waste in accordance with TPA, but significantly increase cost associated with final disposal.

LEVEL OF CONFIDENCE RATIONALE:
Medium. Costs associated with the GDP are based on historical trends and/or definitive design criteria. Area of Risk: The future design of vaults may change as a result of changing state, federal or local regulations. Also, costs of vaults may decrease with increasing vault size, other configuration, or alternate methods of construction.

ACCOMPLISHMENTS TO DATE: FY 1989
- One million gallon PSW demonstration campaign was completed on July 11, 1989.
- Received Nuclear Regulatory Commission (NRC) concurrence that grout feed is classified as low-level waste.
- The Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) comparison letter was submitted to the DOE-Richland Operations Office in September 1989.
- Submitted Part B Permit application in November 1988.

ACTIVITY ALTERNATIVES:
- Construct additional double-shell storage tanks for interim storage of liquid waste. This alternative is not an ultimate solution, as

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9175-1P-0

waste disposal would be still be required.

o Develop alternate strategy for final disposal of DST waste.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
		GPP/CWO RESERVE		91977
	90G-GFW-062	TANK 104 MIXER (90-D-171)	1200	90048
	91G-GFW-083	GROUT MIXER MODULE RAD EQP FAC(91-D-171)	920	91174
	92G-GFW-XXX	RAD. ZONE OPS. SUPPORT BLDG.(92-D-171)	1200	91976

Prepared by: GW JACKSON 5/2/90

Approved by: is Authorized for RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9176-1P-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: GROUT DISPOSAL FACILITY
TITLE: GROUT DISPOSAL PROGRAM (W1P)
PRIORITY: 3
B&R CODE: EW-30-10-35
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): L
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0168
NEPA: N/D
DOE PROGRAM: EM
TPA MS: N
CATEGORY: WM
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE *				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	300	0		740	115	315	105	105
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	0		0		0	200	6000	0	0
TOTAL	0	300	0	0	740	315	6315	105	105

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/93	>COMPL DEFINITIVE DESIGN OF SEC CONFINEMENT STRUCT EQUIP GROUT PROC FAC		
6/30/95	>COMPLETE CONSTRUCTION OF SECONDARY CONFINEMENT STRUCTURE		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

The objective of this Activity Data Sheet is to support funding for preliminary engineering (engineering study), conceptual design report (CDR) and functional design criteria (FDC), definitive design and the construction of the Secondary Confinement Structure (SCC) at the Grout Treatment Facility (GTF).

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9176-1P-0

The Grout Disposal Program (GDP) proposes to build a SCC around the processing equipment module at the existing Grout Processing Facility (GPF).

The start of construction of this SCC has been delayed from FY 93 until FY 94.

FUNDING BASIS:
Rough Order of Magnitude estimate. This estimate has not been validated by an engineering study.

PRIORITY RATIONALE:
The SCC is required by DOE Order; the SCC is a priority 3. In addition, the SCC will provide positive containment and minimize potential releases of radioactive contamination to the environs during critical maintenance activities. Having the ability to perform critical maintenance activities during poor weather (wind) conditions will provide the GDP increased flexibility to meet stated production goals and objectives.

LEVEL OF CONFIDENCE RATIONALE:
Low---The estimate has yet to be validated using an engineering study.

ACCOMPLISHMENTS TO DATE: FY 1989

- One million gallon Phosphate Sulfate Waste (PSW) demonstration campaign was completed on July 11,1989.
- Received Nuclear Regulatory Commission (NRC) concurrence that grout feed is classified as low-level waste.
- The Hanford Defense Waste-Environmental Impact Statement (HDW-EIS) comparison letter was submitted to the DOE-Richland Operations Office in September 1989.

ACTIVITY ALTERNATIVES:
- Operate GTF without secondary confinement, thus limiting flexibility toward meeting production goals.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
LINE ITEMS					
	94L-GFW-XXX	CONFINEMENT STRUCTURE	6000	91971	

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9176-1P-0

Prepared by: _____ 5/2/90
GW JACKSON

Approved by: _____
RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9190-1V-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: HWVP-TREATMENT
TITLE: HANFORD WASTE VITRIFICATION PLANT TREATMENT
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: TPA MS: M-03
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		0	950	400	1640	3380	6500	10700	19900
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	950	400	1640	3380	6500	10700	19900

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/99	>INITIATE OPERATION		M-03-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY1991 Bush Budget Guidance.

Beginning FY 1991, Defense Waste Management will provide operational support during design, construction and startup of a facility to vitrify pretreated waste into borosilicate glass, cast the glass into stainless steel canisters, and store the canisters at Hanford. This facility, also known as the Hanford Waste Vitrification Plant (HWVP) accomplishes an objective of the President's Defense Waste Management Plan,

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specifically, the immobilization of high-level waste. HWVP is also an integral part of both HDW-EIS (DOE-HQ 1987) and the "Tri-Party Agreement". This activity includes all actions required to assemble and train a staff which will overview plant design/construction, maintain the plant following construction turnover, and operate the plant during startup testing.

An ADS for this activity has not been previously submitted. To reduce HWVP Project management costs, WHC, the General Contractor (UE&C-Catalytic, Inc.), and the Architect/Engineer (Fluor Daniels) have formed an Integrated Management Team. This change in Project management, along with a better understanding of organizational responsibilities, has resulted in this new ADS. The change in Defense Waste Management manpower requirements, resulting from establishment of the Integrated Management Team is documented in an internal memo from the HWVP Coordination Office to the HWVP Project Manager, dated December 18, 1989, "Defense Manpower Requirements for HWVP Support."

The increase in cost from FY 1991 to FY 1992 and every thereafter, result from the ramp-up of personnel required to accomplish the tasks shown on Table 1. In 1991, those tasks include all actions required to assemble and train a staff which will provide operations and maintenance overview of plant operability and maintainability during the HWVP detail design phase. The rate of increase from year to year is based both on a preliminary analysis of the tasks to be performed and on a reasonable rate of hiring. This hiring will culminate in a staff of 700 to 800 people in CY 1999 (see Table 2). The CY 1999 manpower estimates are based on historical startup and operating costs of similar chemical process type facilities of similar size.

FUNDING BASIS: The operational costs shown are estimates based on historical costs of operating similar chemical process type facilities of similar size. During FY 1991 to FY 1996, operational costs are primarily a result of operational staffing. Other costs associated with plant startup are borne by the HWVP Project (reference HWVP Project ADS 4000-V-0). Reduction in operating funds from the 1991 "Required" level, will reduce the amount of operational overview performed during detail design of HWVP and adversely impact operability and maintainability of the completed facility.

PRIORITY RATIONALE: Project activity to design, construct and startup HWVP is priority 1 (refer to ADS No. 4000-V-0). DWM support for these Project activities is as shown on Table 1. Failure to provide DWM support will result in schedule delays and increased Project cost.

In a study of process plant projects, performed for the U. S. Department of Energy, the Rand Corporation recommends, "bringing on board all the groups or divisions that will be involved in the project, and doing so

early. These groups include R and D, process development, engineering, construction services, startup and operations. They should be involved in the project throughout its life, not just when problems arise or when their division is about to take over the project. Operations in particular should be given a stake in the project and made jointly responsible for it success from the beginning, to reduce handoff problems during and after startup." (Reference Rand Note N-1709-DOE)

LEVEL OF CONFIDENCE: The level of confidence is considered to be medium. Costs associated with this activity are based on historical costs of staffing a similar sized chemical process type facility. Costs were independently estimated by both Project and DWM personnel and then compared against local and national standards.

ACCOMPLISHMENTS TO DATE: None, this is a new ADS.

ACTIVITY ALTERNATES: Design, construction and startup can be accomplished without support from DWM, "the end user". If the Project was not cancelled, the Project would be forced to contract the services which DWM would have provided. Besides increasing Project cost; design, construction and startup schedules would be adversely affected. TPA milestone M-03-00 would not be accomplished as scheduled because no trained staff would be available to operate the facility following plant startup testing.

INTEGRATED STARTUP/PLANT OPERATIONS TASK INITIATION SCHEDULE
DETAILED DESIGN PHASE
TABLE 1

Cost Acct.	FY 1991	FY 1992
1W1V1 HWVP Plant Ops	Review Instrument. And Equipment List Overview Design For: Operability Maintainability Review ECR's Review Change To: FDC TDP	Prepare Readiness Review Requirements Develop Plant Admin. Manual Including Tag Out System
1W1V4 HWVP Maintenance	Overview Design For Maintainability	Begin Maintenance Develop Spare Part Req. Develop Spare Storage Req. Define Instrument

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Cost Acct.	FY 1993	Calibration Req. Develop Maintenance and Testing Requirements FY 1994
1W1V1 HWVP Plant Ops	Prepare Readiness Review Plan for Cold Ops And Computer System Identify Operating Procedures	Prepare Readiness Review for Hot Ops Prepare Pre-Op Test Procedures Begin Walkdowns Witness Acceptance Tests
1W1V2 HWVP Plant Engrg	Begin Tech Manuals and System Books Prepare Specs for Spares Identify OSR's Receive CVI's Identify Essential Material Req.	Perform System Walkdowns Final Construction Inspection Punchlist Walkdown Deficiencies Inspect Equipiment
1W1V3 HWVP Training	Identify Training Requirements Plant Training	Prepare Lessons Schedule Training
1W1V4 HWVP Maintenance	Identify and Prepare Maintenance Procedures For Pre-Op Tests Identify Spares and Consumables Prepare Instrument Calibration Procedures	Identify PM Requirements Prepare PM Procedures Assist in Test and Perform Construction Inspections Procure Spares,Consumables Procure Tools, Equipment Instrumentation and MaterialsFor Pre-Op Test

Cost Acct.	FY 1995	FY 1996
1W1V1 HWVP Plant Ops	Adminster Tag-Out Witness ATP's Prepare OSR Procedures Train for Pre-Op Tests Pre-Op Specifications for Cold Test Prepare Cold Test Procedures	Perform Pre-Op Tests Receive Essential Mtrl.
1W1V2 HWVP Plant Engrg	Review ATP Results	Review and Approve Pre-Op

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	Approve ATP Results Maintain System Books Maintain CVI's Handle Change Requests Turnover Package Review/ Approval	Test Results Punchlist Pre-Op Deficiencies Document Pre-Op Test Results Write DC's Control Configuration] Spec Out Essential Materials
1W1V3 HWVP Training	Train Personnel Maintain Training Records Train Maintenance	Train Personnel Maintain Training Records Train Maintenance
1W1V4 HWVP Maintenance	Prepare Maintenance For Cold-Tests Support Testing Maintain or Repair Turned Over Equipment Perform Requested Work Prepare Remotability Tests Identify Predictive Maintenance Requirements	Procure Tools, Equipment Instrumentation and Material for Cold Tests Walkdown Maintenance Procedures Calibrate Instruments Perform Remotability Tests Prepare Predictive Maintenance Procedures Receive, Store & Maintain Tools, Equipment Instr. & Materials For Tests
1W1V5 HWVP Prod. Control	Plan and Schedule Operating Runs Plan and Schedule Outage	Plan/Schedule Pre-Op Testing And OSR Tests
1W1V6 HWVP Plant Admin	Monitor Costs	Monitor Costs
Cost Acct.	FY 1997	
1W1V1 HWVP Plant Ops	Perform Pre-Op Tests Train for Cold Tests Prepare Ops Specs for Hot Operation Prepare ALARA Plan	
1W1V2 HWVP Plant Engrg	Readiness Review Data Collection and Indexing	

FY 92 ADS ID: 9190-1V-0

	Troubleshoot Problems
	Monitor Performance
1W1V3	
HWVP Training	Train Personnel
	Maintain Training Records
	Train Maintenance
1W1V4	
HWVP Maintenance	Prepare Maintenance Procedures for Hot Operations
	Perform Repair and Preventative Maintenance
	Store Spares, Tools, Instrumentation and Materials
	Maintain Stored/Spare Material and Parts
1W1V5	
HWVP Prod. Control	Prepare Ops Run Plan
1W1V6	
HWVP Plant Admin	Monitor Costs

HWVP MANPOWER PROJECTIONS
(Manyears)

Cost Acct	Description	Year 91	92	93	94	95	96	97	98	99
1W1V	HWVP Operation									
1W1V1	HWVP Plant Operations									
1W1V1A	Ops Support	1	2	7	15	45	105	155	205	224
1W1V1B	Ops Training					5	5	5	9	12
1W1V1C	Health Physics Support								10	49
1W1V1D	Analytical Lab Support							10	40	66
1W1V1E	Ops Management	2	2	2	5	5	5	10	12	18
1W1V1F	Hazardous Mtrl. Mgmt.									9
1W1V2	HWVP Plant Engrg									
1W1V2A	Cog System Engrg				2	3	8	17	28	42
1W1V2B	Design Support						3	4	4	10
1W1V2C	Surveillance & Testing					2	2	2	4	10
1W1V2D	Process Engineering							2	8	10
1W1C2E	Engineering Management			2	2	3	4	5	8	10
1W1V3	HWVP Training									
1W1V3A	Operations Training				9	27	34	70	70	45

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1W1V3B	Training Admin		1	3	3	3	5	5	5	5
1W1V4	HWVP Maintenance									
1W1V4A	Maintenance Planning				2	2	2	2	10	44
1W1V4B	Material Proc/Control		1.5	2	2	3	3	3	10	10
1W1V4C	Maintenance Support		2	5.5	12	27	60	92	152	174
1W1V4D	Maintenance Mgmt	1	1.5	3	3	4	5	7	10	10
1W1V5	HWVP Production Control									
1W1V5A	Operation Planning							2	4	5
1W1V5B	Operation Scheduling								2	3
1W1V5C	Production Management						1	1	2	6
1W1V6	HWVP Plant Admin									
1W1V6A	Budget/Reporting	0.3	0.5	0.5	1	1	2	2	2	3
1W1V6B	Plant Management	3	3	4	4	4	4	5	5	6
TOTAL		7.3	13.5	29	60	134	248	399	600	771

Prepared by: GA MEYER

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9200-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0302
FACILITY: CENTRAL WASTE COMPLEX
TITLE: LAND DISPOSAL ALTERNATIVES (W2K)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-25
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	250	250	0	265	265	265	265	265
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	250	250	0	265	265	265	265	265

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/90	>ANNUAL REPORT ON ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTE AT HANFORD		M-25-00
3/31/92	>ANNUAL REPORT ON ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTE AT HANFORD		M-25-00
3/31/93	>ANNUAL REPORT ON ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTE AT HANFORD		M-25-00
3/31/94	>ANNUAL REPORT OF ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTE AT HANFORD		M-25-00
3/31/95	>ANNUAL REPORT OF ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTE AT HANFORD		M-25-00
3/31/96	>ANNUAL REPORT OF ALTERNATIVES TO LAND DISPOSAL OF MIXED WASTE AT HANFORD		M-25-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance the 1991 M-25-00 milestone and all TPA milestones are subject to

renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Past emphasis on land disposal for low-level radioactive wastes has created a void in the identification of alternatives to land disposal. Hanford is out of compliance with Washington State Dangerous Waste Regulation (WAC 173-303-140) as well as Federal RCRA Regulations (40 CFR Part 268) which prohibit the land disposal of certain wastes and require that treatment or minimization methods be utilized in preference to land disposal of wastes. This will continue until treatment methods are in place. The Tri-Party Agreement allows continued storage as long as alternatives are being actively investigated.

This activity will evaluate disposal options and prepare annual reports of studies/efforts underway to identify alternatives to land disposal of Radioactive Mixed Waste (RMW). The activity includes surveying all Hanford contractor efforts in waste minimization, recycling, identification and characterization of land disposal restricted RMW, and planning and utilization of treatment technologies. The report will fulfill Milestone M-25-00 of the TPA .

In addition, this funding will be used for technology exchanges to foster technology transfer between DOE sites and private industry to enhance Hanford's ability to employ alternatives to RMW management other than land disposal. A portion of the funding will be used for a study of potential methods to separate radioactive constituents from radioactively contaminated polychlorinated biphenyl waste, thus minimizing the volume of RMW.

With the 1991 Bush Budget, TPA Milestone M-25-00 would not be met in 1991. Based on the 1992 funding request, preparation and issuance of this report would resume in 1992.

FUNDING BASIS:
The first report is being prepared in FY 1990 for submittal. Cost estimates were based on preparation of similar reports issued in prior years to regulatory agencies, (i.e., Annual Dangerous Waste Report and Waste Minimization Reports). The funding was split out from the 1991 plan ADS # RL-302 to clearly segregate the activities.

PRIORITY RATIONALE:
This activity is required under the Tri-Party Agreement Milestone M-25-00.

LEVEL OF CONFIDENCE RATIONAL:
The level of confidence is high based on preparation of similar reports

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9202-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0104
FACILITY: 2727 W/WA SODIUM STORAGE BUILDINGS
TITLE: SODIUM INVENTORY REDUCTION (W2K)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-05 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	365	640	500	0	695	505	250	0	0
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	365	640	500	0	695	505	250	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
7/31/90	>INITIATE RECEIPT OF FERMI SODIUM HYDROXIDE AT PUREX		
7/31/91	>RECEIVE FERMI SODIUM HYDROXIDE AT PUREX		
5/31/92	>INITIATE SHIPMENTS OF HANFORD SODIUM TO INEL		
7/31/92	>RECEIVE FERMI SODIUM HYDROXIDE AT PUREX		
5/31/93	>COMPLETE SHIPMENTS OF HANFORD SODIUM TO INEL		
9/30/94	>COMPLETE SHIPMENTS OF SODIUM HYDROXIDE TO PUREX		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity eliminates the indefinite storage of radioactively

FY 92 ADS ID: 9202-2K-0

contaminated metallic sodium by conversion to sodium hydroxide at an Argonne National Laboratory - West (ANL-W) Facility, located at Idaho National Engineering Laboratory (INEL). The converted sodium hydroxide will be transported to the PUREX Facility for use as a neutralization agent for liquid discharges to Tank Farms. Over 178 tons of contaminated sodium from the Sodium Reactor Experiment and Hallam reactors will be processed resulting in approximately 97,000 gallons of 50 weight percent sodium hydroxide. In addition approximately 150,000 gallons of sodium hydroxide will result from the conversion of 290 tons of FERMI Sodium currently in storage at ANL-W. The Purex facility will use the FERMI Sodium hydroxide in 1990 and 1991 to create storage space for the Hanford sodium at ANL-W. Shipment of the Hanford sodium is expected to occur in 1992 but cannot be firmly established because of uncertainties in the Purex processing schedule. This activity implements the processing schedule identified to the Washington Department of Ecology during the review and approval of the Part A Permit withdrawal, which concluded the sodium was not a waste since a definite use was planned for the material. This implements a Memorandum of Understanding between DOE-RL and DOE-CH. This work was separated from 91 ADS # RL-0337 to provide better work scope definition.

With the 1991 Bush Budget guidance, no shipment or processing of Hanford sodium will occur in 1991. Delaying these activities may result in the failure to consume the sodium hydroxide in the remaining PUREX processing campaigns. The unfunded 1991 work scope has been reprogrammed into 1992, 1993, and 1994 which provides the possibility of utilizing the sodium hydroxide in PUREX if additional delays in the PUREX restart are encountered.

FUNDING BASIS:
This provides funding for the storage, packaging, processing, shipping and consumption of the sodium. The costs were based on well identified processing fees, transportation costs and actual operating costs for storage. The sodium conversion costs are based on a $10 per gallon of sodium processed cost estimate.

PRIORITY RATIONALE:
This is a continuation of an activity which was initiated in 1987 to select and implement an action which would utilize the sodium in a beneficial manner. This funding will put into operation the Sodium Hydroxide Storage Facility (Project W-012) and the Sodium Hydroxide Distribution Facility (Project W-013) which were constructed at Purex in 1989 at a total cost of $1.2M. Further extended storage of this material would require costly upgrades to the storage facilities. Receipt of the sodium hydroxide must be initiated in 1990 to ensure all the material is consumed prior to PUREX shutdown. The Purex facility is the only Hanford facility capable of using this quantity of sodium hydroxide. Delays in this activity would result in suspension of this program and

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FY 92 ADS ID: 9202-2K-0

cause costs for final disposal to increase significantly.

LEVEL OF CONFIDENCE:
The costs are well known, based on actual operating history at ANL-W and shipping quotations. Few variables or uncertainties exist which could cause the costs to change significantly.

ACCOMPLISHMENTS TO DATE:
Project W-012 (Sodium Hydroxide Storage) and Project W-013 (Sodium Hydroxide Distribution) were completed at PUREX in June 1989.

One sodium hydroxide tanker trailer has been modified and delivered to ANL-W in 1989. A second tanker has been located and procurement initiated.

ACTIVITY ALTERNATIVES:
Continue indefinite storage and/or disposal as waste versus beneficial conversion/use as sodium hydroxide. Delays would result in failure of the sodium hydroxide to be utilized in the remaining PUREX processing campaigns. This would result in the declaration of the sodium as waste and subject to the requirements of RCRA and WAC 173-303.

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9203-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0301
FACILITY: CENTRAL WASTE COMPLEX
TITLE: SOLID MIXED WASTE STORAGE FACILITIES (W2K)
PRIORITY: 1 NEPA: ADM
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	1325	1157	1750	2000	2200	2500	2800
CAPITAL EQ	249	0	250	218	702	185	200	150	250
GP PROJECTS	500	0	0		1200	1200			
LINE ITEMS						2000	4000	1000	0
TOTAL	749	0	1575	1375	3652	5385	6400	3650	3050

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
2/28/91	>COMPLETE MODERATE HAZARD STORAGE FACILITY CONCEPTUAL DESIGN		
1/31/93	>INITIATE MODERATE HAZARD STORAGE FACILITY DESIGN		
9/30/93	>COMPLETE GTCC STORAGE FACILITY		
9/30/93	>COMPLETE REMOTE HANDLED STORAGE VAULT #1		
1/31/94	>INITIATE MODERATE HAZARD STORAGE FACILITY CONSTRUCTION		
6/30/95	>COMPLETE MODERATE HAZARD STORAGE FACILITY		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity provides for engineering studies, functional design

criteria, conceptual design reports, support functions (i.e., Safety analysis, environment assessments) and capital funding to design and construct storage facilities for Remote-Handled Mixed Waste (RH-MW), Transuranic (TRU) mixed waste, and Greater than Class C (GTCC) waste storage. Completion of these facilities is critical to ensure the storage requirements of EPA (40 CFR Part 260-272) and Washington Department of Ecology (WAC 173-303) are adhered to.

Two small projects are planned to be initiated in 1990 to resolve some immediate storage issues. The Transuranic Storage and Assay Facility (TRUSAF) has encountered severe mechanical failures which have resulted in curtailed or suspended operations. The upgrade will revamp the HEPA exhaust system, fire protection freeze protection and building heat to ensure continued operations. Several new sources of RH-MWs were identified (60 foot long tank farm pumps and thermocouple trees) which will require storage space in the immediate future. The FY 1990 project would provide approximately two storage silo's (6' width x 60' depth) for some selected tank farm equipment necessary to support the tank retrieval demonstration.

A General Plant Project will be designed in 1992 and constructed in 1993 to provide approximately six to eight additional storage silos (6' diameter x 60' depth) to maintain pace with Tank Farm cleanout schedules. Also planned to be designed in 1992 and constructed in 1993 is a 4,000 square foot building for the storage of GTCC waste. The GTCC waste results primarily from discarded radioisotope sources, hot cell cleanouts, and fuel examination activities. Storage of this waste will continue indefinitely until a final disposal location is identified.

Recent radioactive inventory limits established for the low risk storage facilities currently in use at the Central Waste Complex have made it necessary to construct a moderate risk storage facility for low-level RMW and TRU-MW. Interim storage for retrieved TRU waste must also be provided by this facility to ensure an adequate waste feed stream to the Waste Receiving and Processing (WRAP) Facility. A 37,000 square foot facility is estimated to be necessary to meet the current and projected waste generation rates.

The capital equipment in 1990 and 1991 is for the procurement of five storage modules each year for the storage of ignitable radioactive-mixed waste. In addition to the ignitable storage modules, the FY 1992 Required funding includes the purchase of High Integrity Containers (HICs) for high-activity waste storage and a Computerized Inventory and Tracking System for the Central Waste Complex. The HICs are purchased each year until the moderate hazard storage facility becomes available in 1996. During 1992, 1993, and 1994 additional forklifts are procured to support the new facilities becoming operational in the Central Waste Complex.

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Beginning in 1992, a portion of the base program operating and maintenance costs are transferred from a chargeback/assessment program to the Waste Management Financial Plan. With the 1991 Bush Budget the unfunded expense work will continue to be charged to the waste generators. The FY 1991 Bush Budget for Capital Equipment will result in deferring installation of one ignitable storage module until 1992. The capital equipment was transferred from ADS #9210- Solid Waste Disposal Operations.

FUNDING BASIS:
The cost estimates are preconceptual but similar facilities have been built at the Hanford Site. The Moderate Hazard Storage Facility cost estimate is based on a modification of the design used in RMW Storage Project W-016. The GTCC Storage Building estimate is based on modification of the design of some existing RMW storage buildings currently in use. The storage silo's estimates are based on preconceptual engineering estimates. The expense support for these projects has been transferred from a chargeback/assessment program to the waste management financial plan.

PRIORITY RATIONALE:
These facilities were considered to be a priority 1 because they are essential to maintaining safe environmentally compliant waste storage. Lack of compliant storage capacity would severely impact ongoing activities and disrupt operations of multiple programs.

LEVEL OF CONFIDENCE RATIONALE:
The confidence level was considered to be moderate because similar facilities have been previously constructed and are relatively straight forward with few design complexities.

ACCOMPLISHMENTS TO DATE:
Completed construction of 44,000 square feet of low hazard radioactive mixed waste storage facilities by January 1990.

ACTIVITY ALTERNATIVES:
Continue storage practices in noncompliance with RCRA regulations. This would result in suspension of waste generator shipments, regulatory enforcement action and closure of the facilities. This would impact onsite cleanup activities and Tri-Party Agreement Milestones (i.e., Tank Farm Waste Retrieval Demonstration, Single-Shell Tank Characterization). This would result in a shutdown of onsite waste generator facilities.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF

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FY 92 ADS ID: 9203-2K-0

GENERAL PLANT PROJECTS			
	90G-GFW-XXX TRUSAF UPGRADE/REPLACEMENT	250	91946
	90G-GFW-XXX REMOTE HANDLED MIXED WASTE STORAGE	250	91947
	92G-GFW-XXX GTCC STORAGE	1200	91948
	92G-GFW-XXX REMOTE HANDLED STORAGE VAULT #1	1200	91949
LINE ITEMS			
	93L-GFW-112 MODERATE HAZARD STORAGE FAC (93-D-173)	7000	91950

Prepared by: GT Dukelow
GT DUKELOW

Approved by: initialed for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9204-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0094
FACILITY: SOLID WASTE DISPOSAL
TITLE: SOLID WASTE BURIAL GROUND CLOSURE (W2K)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	2000	2000	0	3420	4355	4440	3565	3565
CAPITAL EQ		0	300	0	1300				
GP PROJECTS									
LINE ITEMS									
TOTAL	0	2000	2300	0	4720	4355	4440	3565	3565

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/92	>INITIATE TEST TRENCH CONSTRUCTION		
6/30/92	>ISSUE PURCHASE SPECIFICATION FOR CAPITAL EQUIPMENT		
6/30/93	>INITIATE DYNAMIC COMPACTION TESTING		
9/30/94	>PERFORM FIELD GROUT INJECTION TESTS		
12/31/94	>COMPLETE SURFACE WATER MANAGEMENT PLAN		
12/31/95	>INITIATE CLOSURE OF 218-E-10 BURIAL GROUND		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity initiates feasibility studies, equipment demonstrations and construction work necessary to support the Low-Level Burial Ground Closures identified in Chapter 11 of the Low-Level Burial Ground

FY 92 ADS ID: 9204-2K-0

Dangerous Waste Permit Application (DOE-RL 88-20). The Low-Level Burial Grounds (LLBG) have been grouped into five Low-Level Waste Management Areas (LLWMA) for partial and final closure. They are as follows:

LLWMA-1	Burial Ground 218-E-10
LLWMA-2	Burial Ground 218-E-12B
LLWMA-3	Burial Grounds 218-W-3A, 218-W-3AE, and 218-W-5
LLWMA-4	Burial Grounds 218-W-4B and 218-W-4C
LLWMA-5	Burial Ground 218-W-6

The closure activities will be performed to meet the performance standards of WAC 173-303-610 (2)(a) to:

> Minimize the need for future landfill maintenance and control, minimize or eliminate to the extent necessary to protect human health and the environment, the post closure escape of dangerous waste, dangerous constituents, leachate, contaminated run off, or dangerous waste decomposition products to the ground, surface water, groundwater or the atmosphere.

In addition, the final closure must meet the low-level waste management performance objectives of DOE Order 5820.2A, Section III 3(a). The closure work is planned based on experience gained at the Savannah River Plant and Idaho National Engineering Laboratory where actual closure activities have been initiated. This work will be modified to address the soil conditions and disposal techniques encountered at Hanford.

Work would begin in 1992 to procure equipment necessary to support demonstration of void detection, waste consolidation and in site stabilization through grout injection. The capital equipment to be procured would be a dedicated crane modified for dynamic waste consolidation, void detection equipment and grout injection equipment.

Beginning in 1993 testing of the equipment would start on simulated waste trenches. Data from the testing will be used as input to the cover design and surface water management which would be prepared and submitted to the regulatory agencies in 1994. Completion of these activities are critical to initiating closure of the 218-E-10 Burial Ground by December 1995. No physical closure work will begin on LLWMA 2 through 5, but is provided to give a complete identification of the total workscope.

With the 1991 Bush Budget the scheduled activities will be delayed by at least one year from the schedule included in the Part B Permit Application. This will require negotiation with the Washington Department of Ecology on a revision to the closure plan schedule. The 1992 operating funds were not increased by the unfunded amount because

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the growth is unachievable. The capital equipment funding was increased to address the FY 1991 unfunded equipment.

FUNDING BASIS:
The costs are based on an engineering report prepared by Golder and Associates. The uncertainty in the costs estimates for the major activities is variable. The costs of constructing the RCRA compliant covers have the lowest degree of uncertainty and are the single most significant element of the work. The construction costs have a greater level of refinement and are better defined. The remaining activities are considered be rough order of magnitudes because of higher degrees of uncertainty, resulting from the development and demonstration aspects. This work was segregated from FY 1991 ADS #RL-0094 to align with the new work breakdown structure. The costs were increased as a result of completion of the engineering report. The funding through 1994 relates primarily to the testing and demonstrations of equipment and techniques necessary to support the initiation of closure activities on 218-E-10 Burial Ground which begins in 1995. The majority of funding beyond 1995 is directly attributed to the actual closure of Burial Ground facilities.

PRIORITY RATIONALE:
The Low-Level Burial Ground Dangerous Waste Part B Permit Application which was submitted to the regulatory agencies in December 1989 committed to a closure schedule. This schedule is considered to be a commitment/ agreement with the regulators and is considered a priority 2 activity.

LEVEL OF CONFIDENCE RATIONALE:
This work was considered to have a low confidence level because no significant work has been initiated and the cost estimates are preliminary in nature.

ACCOMPLISHMENTS TO DATE:
Completed engineering report with preliminary cost estimates for the LLBG Closure.

Completed Conceptual Closure Layout and schedule in December 1989.

ACTIVITY ALTERNATIVES:
Defer the closure activities. This would result in failure to meet the schedule committed to in the Low-Level Burial Ground Dangerous Waste Permit Application and could lead to enforcement action.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9204-2K-0

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9206-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0094
FACILITY: TRU RETRIEVABLE STORAGE UNITS
TITLE: WASTE RETRIEVAL TECHNOLOGY AND OPERATIONS (W2K)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-18
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	2400	2400	500	4500	4500	4300	5200	6000
CAPITAL EQ						2000	2900	1600	1500
GP PROJECTS									
LINE ITEMS						2000	8000	9500	13000
TOTAL	0	2400	2400	500	4500	8500	15200	16300	20500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/91	>COMPLETE TRENCH RETRIEVAL FACILITIES CONCEPTUAL DESIGN (PROJECT W-113)		
2/28/92	>COMPLETE ALPHA CAISSON RETRIEVAL STUDY (W-156)		
6/30/92	>COMPLETE ALPHA CAISSON RETRIEVAL FUNCTIONAL DESIGN (W-156)		
1/31/93	>INITIATE WASTE RETRIEVAL FACILITY DEFINITIVE DESIGN (PROJECT W-113)		
3/31/93	>COMPLETE ALPHA CAISSON RETRIEVAL CONCEPTUAL DESIGN (W-156)		
10/31/93	>INITIATE WASTE RETRIEVAL FACILITY CONSTRUCTION (PROJECT W-113)		
10/31/95	>*INITIATE WASTE RETRIEVAL FROM TRENCHES TO SUPPORT WRAP MODULE 1		M-18-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9206-2K-0

Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all Tri-Party Agreement (TPA) milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity supports engineering studies, functional design criteria, conceptual design, technology development/demonstrations, and operational activities necessary to complete retrieval of post 1970 stored contact-handled (CH) and remote-handled Transuranic (RH-TRU) solid waste from 26 trenches and four alpha caissons. The Waste Receiving and Processing (WRAP) Facility Module 1 and Module 2 operational dates as identified in the TPA (Module 1, September 1996 and Module 2, September 1999) are dependent on the waste retrieval activities. Failure to maintain the identified schedule would result in one or both of the WRAP TPA Milestones being missed as a result of lack of waste feed.

Retrieval for disposal of WIPP is required by the U.S. Department of Energy Order 5820.2A, "Hanford Defense Waste Final Environmental Impact Statement (DOE-HQ 1987) Record of Decision" and the TPA. Over 36,000 drums, 600 large boxes, and four alpha caissons must be retrieved and processed in WRAP. Some waste packages begin approaching their 20 year design life in 1990 and will exceed the design life by six to ten years by the time retrieval operations are initiated in 1996. The sequence of retrieval operations could result in containers being stored for 43 years (i.e. 23 years beyond design life). Some of the containers are projected to be breached, which adds complications to the retrieval activities in terms of ALARA, waste retrieval facility design, environmental impacts, increased waste volumes and retrieval costs.

Current evaluations have identified a minimum of three retrieval facility concepts due to the varying waste package conditions and storage configurations. The required facilities will range from a simple weather enclosure for intact containers to a complete containment facility which would be large enough to handle earth excavation equipment while providing radiological containment.

The design criteria and safety systems for these facilities are currently in the process of being defined via engineering studies.

Phase 1 of the Waste Retrieval Facilities (Project W-113) will provide a Weather Protection Facility that will be utilized to retrieve intact waste containers from trenches. This will allow retrieval activities to continue all year long with minimal interruptions from the weather. This is necessary to ensure WRAP has the necessary waste feed to operate at full capacity. In addition this facility would provide safety and environmental protection during abnormal operating occurrence. This

FY 92 ADS ID: 9206-2K-0

facility will be portable and would be used on 11 of the 26 trenches to be retrieved.

Phase 2 of the Waste Retrieval Facilities (Project W-113) will provide a containment facility over the trenches to allow the retrieval of breached containers. It is currently planned that this portable containment facility will be located within a Weather Protection Facility. This facility is planned to include a HEPA Filtration System, Fire Protection System, waste overpacking stations, equipment airlock, personnel and equipment decontamination and monitoring and change areas. Two of these facilities will be required to support the retrieval of 14 trenches of potentially breached containers in the time frame necessary to support WRAP processing schedules.

The Caisson Retrieval Facility (Project W-156) is planned as a 1995 Line Item to retrieve remote handled transuranic waste (RH-TRU) from the Alpha Caissons. These waste containers (1 and 5 gallon pails) are breached and have dose rates up to 2000 R/HR. This facility will provide a shielded hot cell with remote equipment for retrieval and waste repackaging. Again, this facility must be portable to retrieve RH-TRU from four separately located Alpha Caissons.

Capital equipment procurements will be initiated in 1993 to obtain the dedicated heavy equipment to support the simultaneous waste retrieval at four sites in the 1999 through 2013 time period. Major equipment types would include remote operated backhoes, cranes, container venting systems, shielded forklifts and various transportation/container overpacks.

The 1992 funding growth addresses the 1991 unfunded work scope along with initiation of engineering work on the Alpha caisson retrieval facilities and development of equipment specifications for capital equipment procurements which begin in 1993.

With the 1991 Bush Budget, Phase II (Breached Drums) of the Waste Retrieval Facility would be deferred at least one year. This may require splitting the Waste Retrieval Facility (Project W-113) into two separate projects. As a result of the 1991 Bush Budget the Caisson Retrieval Facility will be deferred to a 1995 Line Item.

FUNDING BASIS:
The cost estimates were based primarily on waste retrieval work being planned at the Idaho National Engineering Laboratory (INEL). INEL has completed a conceptual design for TRU waste retrieval from underground storage sites. The cost estimates are preconceptual for the Hanford facility design.

PRIORITY RATIONALE:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

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This work is necessary to ensure that the WRAP Module 1 (M-18-00) and WRAP Module 2 (M-19-00) operational dates of September 1996 and September 1999 are achieved as mandated by the TPA. The waste retrieval work is critical to make sure that WRAP has the necessary waste feed to initiate operations and to continue to operate efficiently.

LEVEL OF CONFIDENCE RATIONALE:
The work was considered to have a low level of confidence because most of the work is at the preconceptual level. Many uncertainties such as container deterioration, radiation levels, transportation issues, and regulatory requirements could significantly effect the work scope and associated cost estimates.

ACCOMPLISHMENTS TO DATE:
None.

ACTIVITY ALTERNATIVES:
The work could continue to be deferred or delayed. As result, additional container deterioration would occur along with environmental contamination. The retrieval operations would become more difficult with additional risk to the workers. The final impact would be the failure to achieve the WRAP Module 1 and 2 TPA Milestones.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	93L-GFW-113	WASTE RETRIEVAL FACILITY (93-D-173)	30000	91941
	95L-GFW-156	CAISSON RETRIEVAL FACILITY	20000	91942

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9208-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0102
FACILITY: WRAP MODULE I
TITLE: WASTE RECEIVING AND PROCESSING (WRAP) FACILITY (W-026)(W2K)
PRIORITY: 2 NEPA: EIS
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: W-026 TPA MS: M-18
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	4500	5300	1595	5300	6905	6905	7775	9550
CAPITAL EQ		1400	1800	200	1800	800	500	500	500
GP PROJECTS									
LINE ITEMS		2700	2700	0	2700	7400	28800	13100	0
TOTAL	0	8600	9800	1795	9800	15105	36205	21375	10050

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/90	>COMPLETE WRAP MODULE 1 ADVANCED CONCEPTUAL DESIGN		
1/31/92	>*INITIATE WRAP MODULE 1 DESIGN (SUPPORTS M-18-00)		
1/31/93	>COMPLETE LONG LEAD EQUIPMENT DEVELOPMENT, TESTING & PROCUREMENT SPECIFICATIONS		
1/31/94	>*INITIATE WRAP MODULE 1 CONSTRUCTION		
9/30/96	>*COMPLETE WRAP MODULE 1 CONSTRUCTION		M-18-01
3/31/97	>COMPLETE WRAP MODULE 1 FINAL SAFETY ANALYSIS		
9/30/97	>*COMPLETE MODULE 1 CONSTRUCTION AND INITIATE OPERATIONS		M-18-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget guidance, the

FY 92 ADS ID: 9208-2K-0

TPA Milestones will be subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity supports the pre-project and project support work required to design, construct and operate Waste Receiving and Processing (WRAP) Modules 1 and 2. The Line Item funding for WRAP Module 2 is contained in ADS #9218. This data sheet includes all of the operating and capital equipment funding for WRAP Modules 1 and 2. This specifically includes the preparation of engineering studies, functional design criteria, conceptual design reports and advanced conceptual design reports. Support activities such as environmental evaluations, safety analysis, quality assurance, and safety reviews are also included. Engineering activities would include feasibility evaluations of planned treatment systems, testing and evaluation of specific system hardware onsite or at vendors, the material flow analysis, criticality evaluations, ALARA analysis and waste acceptance criteria. Expense funding includes technology demonstrations required to establish the technical data base, process development, equipment adaptation and testing, materials selection, waste compliance functions, and engineering studies in support of Waste Receiving and Processing (WRAP) design and operational start-up activities. The critical products from a technology effort include a Technology Plan, Technical Manual, Waste Compliance Plan, and Waste Compliance Report. Other expense related project costs include project support, training, procedure development, startup documentation, and a Final Safety Analysis Report.

In 1992 the first capital funding for WRAP Module 1 is received which will initiate the definitive design and long lead procurements. The capital equipment will include a nondestructive box assay system for testing and a simulated glovebox for testing and operations evaluations. Outyear capital equipment procurements are for the testing, modification and evaluations of equipment selected for use in WRAP Module 1 and 2. The WRAP Module 1 construction work reaches its peak in 1994. In 1996 the system checkout and testing of WRAP Module 1 is being initiated along with adding operational staff to support the September 1997 startup date.

WRAP Module 1 is to provide examination, certification, and shipping facilities for CH-TRU and suspect CH-TRU solid waste drums and boxes. WRAP Module 1 will open, sort and process (limited) waste drum contents. Decontamination services for small items is planned with the intent of providing services for lead recovery and decontamination of drums and overpacks. A special processing facility for noncompliant waste items will be provided for specific disposal waste form acceptance treatment.

WRAP Module 2 is planned to process all the retrieved and newly generated

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CH suspect TRU waste in boxes and other containers, also drums with high dose rates, RH waste forms, contaminated soil, LLMWs, or security classified content wastes. Module 2 will consist of four facilities: a Size Reduction Facility (SRF), a Decontamination Facility annexed to the SRF, a RH Facility, and a Mixed Waste Treatment Facility (MWTF).

The SRF will consist of a shielded enclosure with associated enclosure receipt/loading and operational support areas. The Decontamination Facility will provide decontamination and repair services for WRAP and other facilities in the 200 Areas. Operations in the process enclosure will be performed remotely from an operating gallery using manipulators, positioning tables, and cranes controlled via CCTV/viewing windows. Waste materials requiring further processing (i.e., shredding, grouting, solidification, and immobilization) will be packaged for transfer to the special processing operational area within WRAP.

The WRAP Module 2 RH Facility will process retrieved and newly generated RH-TRU and LLW-RH wastes via separate processing campaigns. Waste processing will include waste receipt, assaying, smear sampling, plasma melting, radionuclide NDA measurement, repackaging, canister welding, and cask handling.The MWTF will provide the necessary LLMW treatment processed to enable disposal in accordance with all applicable regulations. The MWTF will provide LLW pretreatment and solidification of metallic wastes, lead melting, and solidification of sludge and ion exchange resins. The LLMW requiring incineration will be repackaged and transported to INEL for treatment.

With the 1991 Bush Budget guidance, the operation of WRAP Module I will be delayed by one year and WRAP Module II will be delayed by two years because of the capital funding cycle.

FUNDING BASIS:
The WRAP Module 1 costs are based on an approved conceptual design report estimate. The capital costs have been escalated to the mid point of construction. The operating cost estimates were obtained from the engineering study.

PRIORITY RATIONALE:
This work was considered a priority 2 because both WRAP Module 1 and 2 are identified in the Tri-Party Agreement, Milestones M-18-00 (Module 1) and M-19-00 (Module 2).

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence was considered moderate because of the documented estimates for operating costs and Module 1 capital estimates.

ACCOMPLISHMENTS TO DATE:
Completed WRAP Module 1 CDR in June, 1989.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9208-2K-0

ACTIVITY ALTERNATIVES:
Privatization of a part or all of the WRAP Facility is being pursued in parallel with the normal budget activities. The privatization program could offer a reduction in capital appropriations but the program is still in its early stages and many obstacles are yet to overcome before this could be implemented. After October 1990 this alternative will no longer be valid because capital appropriation will have been allocated.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	91L-GFW-026	WRAP FACILITY MODULE 1 (91-D-173)	52000	90053

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9209-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: CENTRAL WASTE COMPLEX
TITLE: RMW INCINERATION AT INEL (W2K)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE *
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		0	500	0	750	500	500	500	500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	500	0	750	500	500	500	500

9 2 1 2 3 5 9 2 1 0 2

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
11/30/91	>COMPLETE MEMORANDUM OF UNDERSTANDING		
12/31/91	>DEFINE WASTE ACCEPTANCE CRITERIA (WAC) FOR INCINERATION		
3/31/92	>IDENTIFY HANFORD WASTE WHICH CAN MEET WASTE ACCEPTANCE CRITERIA		
5/31/92	>INITIATE SHIPMENTS OF RMW TO INEL FOR INCINERATION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This will support the engineering, packaging, shipping, incineration, and ash disposal of Hanford Radioactive Mixed Waste (RMW) at the Idaho National Engineering Laboratory (INEL) Waste Experimental Reduction Facility (WERF).

FY 92 ADS ID: 9209-2K-0

RMW is being generated and stored at Hanford pending applications of treatment as mandated by the treatment standards published in 40 CFR 268. A portion of the RMW in storage is mandated to be treated by incineration (primarily organics). Incineration has been determined by the Environmental Protection Agency to be the best demonstrated applicable treatment for organics. The Waste Receiving and Processing (WRAP) Module 2 engineering study has recommended that an incinerator not be included in the WRAP Module 2 project scope. The most cost effective option is to transport the waste to the Idaho National Engineering Laboratory for incineration at the WERF. The WERF has recently received a RCRA permit to incinerate RMW in addition to normal low-level waste incineration. Approximately 400 drums per year of RMW waste could potentially be shipped to WERF for incineration. The incinerated ash would be stabilized with grout and returned to Hanford for disposal. This would end indefinite storage and move toward final disposal. This would also accelerate the treatment by eight to ten years (WRAP Module 2 startup 1999).

Work would be initiated in FY 1991 by developing a detailed memorandum of understanding outlining duties and responsibilities of the appropriate field offices. This would be followed shortly by defining WERF acceptance criteria and identifying Hanford waste which meets the waste acceptance criteria. In addition, Hanford waste which can be repackaged to meet the WERF acceptance criteria, will be identified and plans developed for repackaging at a facility yet to be determined. Shipments would be initiated in the Spring of 1991 and continued on an annual basis. In 1992 work would increase to address the backlog of waste in storage and to begin waste repackaging.

With the 1991 Bush Budget no work will be performed in 1991 and all work will be delayed by a minimum of one year. The 1992 funding was not increased because this additional funding would not result in a schedule recovery.

FUNDING BASIS:
The costs were estimated assuming approximately 400 drums per year were incinerated at WERF. This activity includes funding for the WERF Incineration Processing Fees. The incineration costs were based on an assumed cost of $1.00 per pound which was derived from commercial incinerator vendors. Transportation costs included the lease of a Type B overpack container.

PRIORITY RATIONALE:
This work is required to implement the land disposal restriction regulations contained in 40 CFR 268. This is not currently part of a compliance agreement, therefore, was considered a priority 3. Negotiations are currently underway which may result in this activity

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becoming part of the Tri-Party Agreement, making this a priority 2.

LEVEL OF CONFIDENCE RATIONALE:
This work is in the preliminary planning stages and still subject to a fair degree of change. Therefore, it has been determined to have a low confidence level.

ACCOMPLISHMENTS TO DATE:
Completed draft WRAP Module 2 Mixed Waste Treatment Evaluations in January 1990.

ACTIVITY ALTERNATIVES:
The waste could continue to be stored at the Hanford Site indefinitely. Direct disposal (without treatment) of RMW cannot be accomplished and meet the Best Demonstrated Applicable Treatment mandated by EPA. The WRAP Module 2 scope could be expanded to include an incinerator to treat this waste at an additional estimated cost of $50 million.

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9210-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0337
FACILITY: SOLID WASTE DISPOSAL
TITLE: SOLID WASTE DISPOSAL OPERATIONS (W2K)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE *		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	436	4375	0	7255	6725	6725	6725	6875
CAPITAL EQ	0	855	1650	492	4048	1270	1105	1125	1195
GP PROJECTS			1200	0	1200				
LINE ITEMS							1500	3500	1000
TOTAL	0	1291	7225	492	12503	7995	9330	11350	9070

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
10/31/91	>INITIATE LOW LEVEL BURIAL GROUND SAFETY ANALYSIS REVISION		
11/30/91	>ISSUE ANNUAL WASTE VOLUME PROJECT/SYSTEMS ANALYSIS		
9/30/92	>REVISE HANFORD RADIOACTIVE WASTE ACCEPTANCE CRITERIA MANUAL (WHC-EP-0063)		
9/30/93	>REVISE HANFORD RADIOACTIVE WASTE ACCEPTANCE CRITERIA MANUAL (WHC-EP-0063)		
10/31/93	>COMPLETE LOW LEVEL BURIAL GROUND SAFETY ANALYSIS REVISION		
9/30/94	>REVISE HANFORD RADIOACTIVE WASTE ACCEPTANCE CRITERIA MANUAL (WHC-EP-0063)		
1/31/95	>INITIATE DESIGN OF 218-W-5 RAILROAD EXPANSION		
9/30/95	>REVISE HANFORD RADIOACTIVE WASTE ACCEPTANCE CRITERIA MANUAL (WHC-EP-0063)		
9/30/96	>REVISE HANFORD RADIOACTIVE WASTE ACCEPTANCE CRITERIA MANUAL (WHC-EP-0063)		

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9210-2K-0

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity moves a portion of the solid waste disposal activities from an assessment/chargeback program to the Waste Management Financial Plan. This supports activities required to maintain safety and continuity of operations for the low-level burial grounds. Major activities include environmental compliance activities, safety analysis report revision, waste certification and auditing, revise waste acceptance criteria, and radioactive waste tracking and reporting. This supports the ongoing disposal operation of low-level waste generated by onsite and offsite activities. Funding a base program from the Waste Management Financial Plan will provide a stable disposal rate allowing waste generators to adequately plan for future disposal costs. The costs increased in 1991 and 1992 as a base program is established in the Waste Management Financial Plan.

A recent evaluation has identified the need to replace aging and failing heavy equipment supporting the Solid Waste Disposal operations. A list of equipment to be replaced has been developed and a phased replacement plan has been included in this ADS. The immediate capital equipment scheduled for replacement are a crane, backhoe, grader and water truck.

The 1991 General Plant Project will provide a centralized office and change room facility for Solid Waste Operations staff and support functions. This would support increased work scope and replace a temporary trailer. As a result of the 1991 Bush Budget this activity is also identified in 1992.

Project W-157 has been deferred to a 1995 Line Item as a result of the 1991 Bush Budget. The 1995 Line Item will provide rail access into the 218-W-5 Burial Ground where a majority of the future disposal activities will occur. Rail access to this disposal site needs to be installed to support the continued disposal of waste shipped by rail.

With the 1991 Bush Budget the only activity which will be funded is the Capital Equipment. The remaining activities will continue to be funded by a waste generator chargeback/assessment program or the work will be deferred. The FY 1992 operating funds were increased to transfer a portion of the base costs and provide additional rate stabilization. The capital equipment was increased to address the unfunded 1991 equipment. A portion of the 1992 and beyond capital equipment was transferred to ADS #9203-2K, Solid Mixed Waste Storage Facilities.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9210-2K-0

FUNDING BASIS:
This work is being transferred from an existing chargeback/assessment program to establish a base program which is funded by the Waste Management Financial Plan. Therefore, the operating cost estimates are based on several years of historical costs. The capital equipment costs are based on replacement estimates available from vendors. The General Plant Project is based on a cost estimate for a similar facility at B-Plant. The Burial Ground rail extension estimate is based on a completed engineering report.

PRIORITY RATIONALE:
This work is considered a priority 1 because it is an essential support service necessary to continue ongoing operations through the disposal of low-level radioactive waste. This is necessary to minimize the spread of contamination and reduce exposure to the workers and operate in a safe manner.

LEVEL OF CONFIDENCE RATIONALE:
The confidence level was considered high because the operating funds and capital equipment costs estimates are based on historical operating trends and vendor data.

ACCOMPLISHMENTS TO DATE:
Revised and issued Hanford Radioactive Waste Acceptance Criteria (WHC-EP-063) in September 1989.

ACTIVITY ALTERNATIVES:
This work could continue to be funded by a chargeback/assessment program which discourages waste minimization activities and prevents waste generators from accurately budgeting when the disposal rates are changing according to volume changes.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	91G-GFW-114	CENTRAL WASTE CMPLX SPPT FAC (91-D-171)	1200	91935
LINE ITEMS				
	95L-GFW-157	218-W-5 BURIAL GROUND RAIL EXTENSION	6000	91936

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9210-2K-0

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9211-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: SOLID WASTE TREATMENT
TITLE: TRUPACT SHIPMENTS TO WIPP (W2K)
PRIORITY: 4 NEPA: EIS
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, NEPA
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)						FUNDING ISSUE *
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		0	0	0	1500	1000	1000	1000	1000
CAPITAL EQ		0	0	0	200				
GP PROJECTS		0	0	0	300				
LINE ITEMS									
TOTAL	0	0	0	0	2000	1000	1000	1000	1000

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
4/30/93	>COMPLETE SHIPMENT PREPARATIONS		
5/31/93	>INITIATE WASTE SHIPMENTS TO WIPP		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This work includes all activities necessary to begin shipments of Transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP). This would entail waste repackaging and venting, procedure development, quality assurance plans, loading plans, loading and shipment of TRU waste to WIPP. An existing facility would be modified with a small project in 1992 to allow the loading of the TRUPACT-II transportation cask. The handling fixtures and equipment necessary to handle the TRUPACT II would also be procured in 1991.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9211-2K-0

The Hanford Defense Waste Environmental Impact Statement (EIS) Record of Decision has identified WIPP as the preferred option for disposal of TRU waste generated at Hanford. This EIS also addressed the risk involved in the transportation of TRU waste to WIPP from Hanford. Delays in WIPP opening has postponed the shipments originally planned to begin in 1989. The states of Washington and Oregon have both expressed a strong interest in seeing shipments of TRU waste be initiated prior to the currently planned date of 1996.

FUNDING BASIS:
The capital equipment and facility modifications were based on work performed at the Idaho National Engineering Laboratory. The preparation costs were arrived at by reviewing the existing requirements and completing an engineering estimate.

PRIORITY RATIONALE:
This activity would allow the preparation and shipment of TRU waste to WIPP to be accelerated ahead of the currently planned date of 1996. It would end the indefinite storage of waste and move towards final disposal. This was considered a priority 4 because it is desirable and implemented a schedule acceleration.

LEVEL OF CONFIDENCE RATIONALE:
This activity was considered to have a low confidence level because it is in the preliminary planning phase and the changing regulatory environment will likely require changes in work scope.

ACCOMPLISHMENTS TO DATE:
None.

ACTIVITY ALTERNATIVES:
Continue interim of storage of the TRU waste at Hanford until the Waste Receiving and Processing Facility Module 1 becomes available in September 1996.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	92G-GFW-XXX	TRUPACT LOADING DOCK MODIFICATION	300	92056

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9211-2K-0

Prepared by: GT DUKELOW

Approved by: Substituted for RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9212-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0196
FACILITY: SOLID WASTE DISPOSAL
TITLE: ADVANCED LOW LEVEL WASTE DISPOSAL DEMONSTRATION (W2K)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE *		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		1500	0	0	750	2000	2500	2000	
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	1500	0	0	750	2000	2500	2000	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/92	>COMPLETE CONCEPTUAL DESIGN REPORT		
3/31/92	>COMPLETE PRELIMINARY SAFETY EVALUATION		
9/30/92	>COMPLETE ENVIRONMENTAL ASSESSMENT		
9/30/93	>COMPLETE DEFINITIVE DESIGN		
9/30/93	>COMPLETE PRELIMINARY SAFETY ANALYSIS REPORT		
12/31/94	>COMPLETE CONSTRUCTION		
12/31/94	>COMPLETE FINAL SAFETY ANALYSIS REPORT		
4/30/95	>COMPLETE READINESS REVIEW AND START OPERATIONS		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Per DOE-HQ direction, FY 1991 funding requests for Priority 3 and 4

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9212-2K-0

ADS's that are not required to meet Compliance Agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets.

An engineering study assessing Low-Level Waste Disposal Alternatives will lead to the design and construction of an Advanced Disposal Demonstration Facility for high activity wastes to meet the requirements of DOE Order 5820.2A implementation. Designs features from Solid Waste Management Facilities at other DOE sites will be reviewed and the most beneficial of each selected to be incorporated into a site specific Hanford design. The design will be optimized not only to avoid future remedial action requirements but to incorporate operational improvements as a long term cost savings method. The new facility will provide: enhanced burial ground utilization and operation, elimination of burial ground subsidence, improved waste packaging techniques and improved public perception.

The Advanced Disposal Demonstration Facility will comply with all DOE orders and regulatory requirements. Waste characterization data , waste volume projections and waste form/vadose zone testing will be used to establish a site specific performance assessment model. Performance assessment will establish performance criteria for the LLBG disposal practices. Changes resulting from performance assessment review will be incorporated into the design bases for subsequent low-level disposal facilities.

The disposal facility will be sized (120'x60'x30') to handle approximately 300,000 cubic feet of high activity waste originating primarily from B Plant, PUREX, Tank Farms, and 300 Area Hot Cells (324/325 Bldgs). This facility would provide capacity for approximately four to five years of waste disposal accommodating both remote (RH) and contact handled (CH) waste. The RH will be placed in silos located in the trench floor with CH being placed over the loaded silos.

The 1992 funding will be used to complete the Conceptual Design Report, Preliminary Safety Evaluation and Environmental Assessment. The costs increase in 1993 with the preparation and issuance of the Definitive Design and Preliminary Safety Analysis Report. In 1994 construction activities are in full swing along with preparation of the final Safety Analysis Report. In 1995 startup testing and Operational Readiness Reviews are completed with the initiation of operations beginning in April 1995.

With the 1991 Bush Budget no work will be performed and the milestone dates will be delayed a minimum of one year impacting implementation of DOE 5820.2A.

FUNDING BASIS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9212-2K-0

Funding basis for this activity is based on an FY 1990 engineering study which compared similar vault facilities at Hanford and other DOE Sites. This is an expense funded project similar to the Grout Disposal Vaults.

PRIORITY RATIONALE:
This task was considered to be Priority 3 because it will be used to achieve compliance with the performance objectives identified in DOE Order 5820.2A, Section III(a). This would also enhance the public perception of waste management activities and avoid potential future remedial actions.

LEVEL OF CONFIDENCE RATIONALE:
The costs are based on similar facilities however, development of the Hanford concept has not been completed. Therefore, this work was considered to have a low confidence level.

ACCOMPLISHMENTS TO DATE:
Draft Engineering Study issued for review February, 1990.

ACTIVITY ALTERNATIVES:
Continue direct burial disposal in shallow land trenches. Deferment of this activity could lead to delays in implementation of DOE Order 5820.2A. Public acceptance and confidence will not be enhanced if the current waste management techniques are continued.

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9214-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: SOLID WASTE DISPOSAL
TITLE: RMW DISPOSAL TRENCH (W-025)(W2K)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	1190	0	2000				
CAPITAL EQ			0	0	150				
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	1190	0	2150	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
4/30/90	>COMPLETE RADIOACTIVE MIXED WASTE DISPOSAL FACILITY (PROJECT W-025) DEFINITIVE DESIGN		
2/22/91	>COMPLETE PRELIMINARY SAFETY ANALYSIS REPORT FOR PROJECT W-025		
5/31/91	>START CONSTRUCTION ON PROJECT W-025		
1/24/92	>COMPLETE CONSTRUCTION OF PROJECT W-025		
6/30/92	>INITIATE RADIOACTIVE MIXED WASTE DISPOSAL FACILITY OPERATIONS		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This work provides for the design construction and startup of a radioactive mixed waste disposal facility necessary to meet the landfill

requirements of WAC-173-303.

This facility will be located in the 200 West Area in Burial Ground 218-W-5 and will provide disposal capacity for approximately 300,000 cubic feet of radioactive mixed waste. The landfill design will allow for the operation of heavy equipment and placement of heavy waste loads. Approximately 90 percent of the waste disposed is expected to be contact-handled (<200 mrem/hr) drums, boxes, and casks. The remaining 10 percent will be comprised of remote-handled equipment in a wide variety of packages and dose rates.

The landfill will be designed and constructed with double liner systems following he minimum technology guidance contained in EPA 530-SW-85-014 designed to prevent any migration of waste out of the landfill during its active life (operational life plus 30 years post closure period). A leachate management system will be provided to detect, collect, and store the leachate for later treatment at other onsite liquid treatment facilities.

In 1991 the preliminary safety analysis report will be completed which will allow the initiation of construction activities.

In 1992 the construction activities will be completed along with the final Safety Analysis Report. Following an Operational Readiness Review, the facility will begin operation in June 1992.

The increase from FY 1990 to FY 1991 reflects the transfer of a portion of the facility costs from an assessment/chargeback program (burial rates) to the Waste Management Financial Plan.

FUNDING BASIS:
The construction cost estimates were obtained from the conceptual design report (SD-W025-CDR-001) and have been confirmed by the architectural engineer definitive design effort (75 percent complete). The safety analysis work was estimated based on similar analysis work currently in progress. Increased safety and environmental requirements (i.e., permits, groundwater monitoring wells, safety analysis) being applied to waste treatment, storage and disposal has resulted in significant cost increases. A significant reduction in waste volumes has resulted in a disposal rate (burial rate) which has increased by orders of magnitude.

A portion of the facility costs are being transferred from a chargeback/ assessment program (burial rates) to the Waste Management Financial Plan to provide burial rate stability allowing waste generators to adequately plan for future disposal costs.

PRIORITY RATIONALE:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9214-2K-0

This work was considered a priority 1 because it was necessary to continue ongoing waste management disposal activities by providing a RCRA compliant disposal trench.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence was considered moderate because the majority of costs are related to construction work which is well defined. A high level of confidence would have been applied except for uncertainties related to the safety analysis regulatory review and final leachate disposal disposition.

ACCOMPLISHMENTS TO DATE:
Completed site selection for the RMW disposal trench, September 1989.

Initiated definitive design of Project W-025, October 1989.

ACTIVITY ALTERNATIVE:
Defer or delay the activity results in increased storage needs. Another alternative would be to pursue disposal at a proposed regional facility at the Nevada Test Site. Transportation and political issues make this alternative unattractive.

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9215-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: 616 HAZARDOUS WASTE STORAGE BLDG
TITLE: NON-RADIOACTIVE HAZARDOUS WASTE STORAGE (616 BLDG) (W2K)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: TPA MS: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	0	0	2850	2850	2850	2850	2850
CAPITAL EQ					50				
GP PROJECTS					100				
LINE ITEMS					0				
TOTAL	0	0	0	0	3000	2850	2850	2850	2850

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/91	>UPDATE NONRADIOACTIVE DANGEROUS WASTE PACKAGING AND DISPOSAL REQUIREMENTS		
9/30/91	>RECEIVE, STORE AND SHIP 1000 TO 2000 DRUMS OF RADIOACTIVE HAZARDOUS WASTE ANNUALLY		
3/31/92	>UPDATE NONRADIOACTIVE DANGEROUS WASTE PACKAGING AND DISPOSAL REQUIREMENTS		
9/30/92	>RECEIVE, STORE AND SHIP 1000 TO 2000 DRUMS OF NONRADIOACTIVE HAZARDOUS WASTE ANNUALLY		
3/31/93	>UPDATE NONRADIOACTIVE DANGEROUS WASTE PACKAGING AND DISPOSAL REQUIREMENTS		
9/30/93	>RECEIVE, STORE AND SHIP 1000 TO 2000 DRUMS OF NONRADIOACTIVE HAZARDOUS WASTE ANNUALLY		
3/31/94	>UPDATE NONRADIOACTIVE DANGEROUS WASTE PACKAGING AND DISPOSAL REQUIREMENTS		
9/30/94	>RECEIVE, STORE AND SHIP 1000 TO 2000		

FY 92 ADS ID: 9215-2K-0

DRUMS OF NONRADIOACTIVE HAZARDOUS WASTE
ANNUALLY
3/31/95 >UPDATE NONRADIOACTIVE DANGEROUS WASTE
PACKAGING AND DISPOSAL REQUIREMENTS
9/30/95 >RECEIVE, STORE AND SHIP 1000 TO 2000
DRUMS OF NONRADIOACTIVE HAZARDOUS WASTE
ANNUALLY
3/31/96 >UPDATE NONRADIOACTIVE DANGEROUS WASTE
PACKAGING AND DISPOSAL REQUIREMENTS
9/30/96 >RECEIVE, STORE AND SHIP 1000 TO 2000
DRUMS OF NONRADIOACTIVE HAZARDOUS WASTE
ANNUALLY

== NARRATIVE ==========

ACTIVITY DESCRIPTION:
* ~~The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.~~

This provides funding for the operations of a permitted 616 Nonradioactive Dangerous Waste Storage Facility, per WAC 173-303a. The 616 Building serves as the centralized Hanford facility to segregate and store dangerous wastes prior to offsite shipment for treatment and disposal. Approximately 12 to 15 times per year the waste is manifested, inspected and shipped offsite for treatment and disposal. This includes support functions including engineering, chemical waste disposal analysis, waste designations, training, transportation, and offsite treatment/disposal contract costs. Operations, maintenance, training, and emergency response team support are included in this task. This task also includes for the accumulation and storage of non-regulated drum storage for shipment offsite to be cleaned for reuse/recirculation. Capital upgrades are required to construct a facility covered loading dock which provides spill containment and prevents water intrusion and ice buildup in the drum handling area. The capital equipment provides a chemical vapor hood to allow for waste package sampling and verification.

FUNDING BASIS:
This activity transfers the costs from a chargeback/assessment program to direct funding from the waste operations budget. The costs were derived from operating history gained since 1985 when the facility began operation along with engineering estimates for the upgrade work.

PRIORITY RATIONALE:
This activity is necessary to ensure that hazardous waste generated from Hanford activities are safely managed in compliance with WAC 173-303. Severe onsite program and resource impacts would occur if this work was suspected.

* Revision is not included in Headquarters data disks, or Richland Operations data disks, due to late receipt of revision.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9215-2K-0

LEVEL OF CONFIDENCE RATIONALE:
A significant degree of operating history has been experienced and the upgrades are simple, straight forward activities.

ACCOMPLISHMENTS TO DATE:
September 1989, received over 1,500 drums of hazardous waste.

ACTIVITY ALTERNATIVES:
The facility operation could be discontinued. This would result in each hazardous waste generator storing waste in excess of the 90 day regulatory requirements thereby shutting down operations. Each waste generator could then submit permits as storage facilities. This would result in a severe duplication of effort and waste of money.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
GENERAL PLANT PROJECTS					
	92G-GFW-XXX	616 BUILDING LOADING DOCK	100		91130

Prepared by: GT DUKELOW

Approved by: "Concurred for" RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9216-2K-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: 224-T BUILDING
TITLE: TRUSAF OPERATIONS (W2K)
PRIORITY: 1
B&R CODE: EW-30-10-30
A-106: N
REGULATORY DRIVERS: RCRA
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: NEW
NEPA: N/D
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	0	0	0	3050	3050	3050	3050	3050
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	3050	3050	3050	3050	3050

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/92	>COMPLETE ANNUAL REPORT OF WIPP CERTIFICATION		
9/30/92	>COMPLETE EXAMINATION OF 1000 DRUMS		
9/30/93	>COMPLETE ANNUAL REPORT OF WIPP CERTIFICATION		
9/30/93	>COMPLETE EXAMINATION OF 1000 DRUMS		
9/30/94	>COMPLETE ANNUAL REPORT OF WIPP CERTIFICATION		
9/30/94	>COMPLETE EXAMINATION OF 1000 DRUMS		
9/30/95	>COMPLETE ANNUAL REPORT OF WIPP CERTIFICATION		
9/30/95	>COMPLETE EXAMINATION OF 1000 DRUMS		
9/30/96	>COMPLETE ANNUAL REPORT OF WIPP CERTIFICATION		
9/30/96	>COMPLETE EXAMINATION OF 1000 DRUMS		

== NARRATIVE ==

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9216-2K-0

ACTIVITY DESCRIPTION:

* ~~The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.~~

This work supports the operation and maintenance of the Transuranic Storage and Assay Facility (TRUSAF) located in the 224-T Building. Newly generated contact-handled transuranic (CH-TRU) waste drums are sent to TRUSAF for x-ray examination and transuranic content assay. The TRUSAF processes approximately 1,000 to 2,000 drums of CH-TRU per year. TRUSAF provides the final quality assurance overcheck necessary to assure the waste complies with the Waste Isolation Pilot Plant (WIPP) Waste Acceptance Criteria. The assay system is capable of distinguishing whether the TRU content is above or below the 100 nCi/Gram TRU limit. This results in a significant quantity of waste being classified as low-level waste thereby reducing the number of drums requiring interim storage. TRUSAf also provides compliant mixed waste storage in accordance with WAC-173-303. Over 2,000 drums of WIPP certified waste are currently in storage.

With delays in WIPP opening and the postponement of shipment until 1996, the TRUSAF building will require maintenance and operational upgrades to support continued operation. In addition, the remaining storage capacity will be filled by 1991. Evaluations are currently underway to identify additional storage locations. Several severe mechanical failures were encountered in 1989 which resulted in curtailed or suspended operations for extended lengths of time. A small project will be used to modify the HEPA exhaust system, fire system, freeze protection, and building heat to ensure continued operation.

The Bush budget will require that this activity continue to be funded by a chargeback/assessment program. This results in fluctuating rates and serves as a deterrent to waste minimization.

FUNDING BASIS:
The costs were based on operating experience gained since 1985. The upgrade cost estimates were obtained from an engineering study. This activity transfers the costs from a chargeback/assessment program to the Waste Management Financial Plan.

PRIORITY RATIONALE:
This work was considered to be a priority 1 because it is essential in maintaining safe environmentally compliant TRU waste storage. Lack of compliant storage capacity would severely impact ongoing processing and cleanup activities being conducted by several programs.

LEVEL OF CONFIDENCE RATIONALE:
The confidence level was considered to be moderate because of the significant operating history. This would have been a high confidence

* Revision is not included in Headquarters data disks, or Richland Operations data disks, due to late receipt of revision.

FY 92 ADS ID: 9216-2K-0

level except for uncertainties concerning maintenance of the aging 40-year old building.

ACCOMPLISHMENT TO DATE:
Assayed 1,000 drums of waste in FY 1989.

ACTIVITY ALTERNATIVE:
Return to outdoor underground storage of waste in noncompliance with RCRA regulations and the WIPP WAC. This would result in suspension of waste generator shipments, regulatory enforcement action, and closure of the facilities. This work could continue to be funded by a chargeback/assessment program which discourages waste minimization.

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9217-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: 213-W COMPACTOR BUILDING
TITLE: LOW LEVEL WASTE VOLUME REDUCTION (W2K)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, RCRA
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	0	0	0	1650	2035	2035	2035	2035
CAPITAL EQ					750	250			
GP PROJECTS					250				
LINE ITEMS									
TOTAL	0	0	0	0	2650	2285	2035	2035	2035

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/92	>COMPLETE CAPITAL EQUIPMENT PROCUREMENT		
9/30/92	>COMPLETE 213W BUILDING MODIFICATION		
12/31/92	>COMPLETE EQUIPMENT INSTALLATION		
6/30/93	>COMPLETE OPERATIONS TESTING		
10/31/93	>BEGIN LIMITED OPERATION		
1/31/94	>START FULL EXPANDED OPERATION		

== NARRATIVE ==

ACTIVITY DESCRIPTION:

* ~~The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.~~

This work supports the operation and maintenance of a light duty box compactor for the volume reduction of radioactive low-level waste. This compactor compacts primarily nonmetallic dry waste packaged in plastic bags into metal burial boxes. The initial operational experience has identified several upgrades needed to increase the efficiency and volume

* Revision is not included in Headquarters data disks, or Richland perations data disks, due to late receipt of revision.

FY 92 ADS ID: 9217-2K-0

reduction ratios. These upgrades include modifying the existing 213W Facility, adding a storage annex and increasing the compactor compaction force to compact a wider range of waste materials. Also scheduled for installation is a sorting and counting table to monitor and recycle potentially clean items for recycle or reuse and an X-Ray unit capable of physical examination of waste packages before sorting or compaction. This task will require state of the art equipment and technology used at other DOE and commercial facilities for volume reduction. This activity also supports technical coordination with waste generators on implementation of volume reduction techniques. These activities directly implement the requirements of DOE Order 5820.2A Chapter III "Management of Low-Level Waste".

FUNDING BASIS:
The cost estimates are based on some limited operating history over the last year. The compactor upgrade and storage facility are based on vendor quotes and similar facilities construction at Hanford. The costs for these activities have been transferred from a chargeback/ assessment program to the Waste Management Financial Plan.

PRIORITY RATIONALE:
These tasks were considered to be a priority 3 because they are required to implement the volume reduction requirements contained in DOE Order 5820.2A Chapter.

LEVEL OF CONFIDENCE RATIONALE:
The confidence level was considered to be moderate because of some operating experience and similar facilities at other DOE Sites. After gaining some additional operating experience and detailed design on the upgrades, this task would gain a high level of confidence.

ACCOMPLISHMENTS TO DATE:
None.

ACTIVITY ALTERNATIVES:
Continue to dispose of waste directly without compaction. This will result in increased life cycle costs when land use closure cost and long-term monitoring are considered.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
GENERAL PLANT PROJECTS					
	92G-GFW-XXX	213-W STORAGE ANNEX	250		90303

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9217-2K-0

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9218-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0102
FACILITY: WRAP MODULE II
TITLE: WASTE RECEIVING AND PROCESSING (WRAP) FACILITY (W-100)(W2K)
PRIORITY: 2 NEPA: EIS
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: W-100 TPA MS: M-19
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING									
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS						0	0	7000	18000
TOTAL	0	0	0	0	0	0	0	7000	18000

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
7/31/90	>COMPLETE WRAP MODULE 2 FUNCTIONAL DESIGN (SUPPORTS M-19-00)		
3/31/93	>*COMPLETE WRAP MODULE 2 CONCEPTUAL DESIGN (SUPPORTS M-19-00)		
1/31/95	>*INITIATE WRAP MODULE 2 DESIGN (SUPPORTS M-19-00)		
9/30/00	>*COMPLETE WRAP MODULE 2 CONSTRUCTION		M-19-01
9/30/01	>*COMPLETE MODULE 2 CONSTRUCTION AND INITIATE OPERATIONS		M-19-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient expense funding (See ADS #9208) at the FY 1991 Bush Budget guidance, this and all TPA Milestones will be subject to renegotiation.

The above milestones and the following narrative are based on receiving

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9218-2K-0

FY 1991 Bush Budget Guidance.

This activity supports the pre-project and project work required to design, construct, and operate Waste Receiving and Processing (WRAP) Module 2. The operating funds for this work are contained in ADS #9208. This specifically includes the preparation of engineering studies, functional design criteria, conceptual design reports, and advanced conceptual design reports. Support activities such as environmental evaluations, safety analysis, quality assurance, and safety reviews are also included. Engineering activities would include feasibility evaluations of planned treatment systems, testing and evaluation of specific system hardware onsite or at vendors, the material flow analysis, criticality evaluations, ALARA analysis, and waste acceptance criteria.

WRAP Module 2 is planned to process all the retrieved and newly generated CH suspect TRU waste in boxes and other containers, also drums with high dose rates, RH waste forms, contaminated soil, LLMWs, or security classified content wastes. Module 2 will consist of four facilities: a Size Reduction Facility (SRF), a Decontamination Facility annexed to the SRF, a RH Facility, and a Mixed Waste Treatment Facility (MWTF).

The SRF will consist of a shielded enclosure with associated enclosure receipt/loading and operational support areas. The Decontamination Facility will provide decontamination and repair services for WRAP and other facilities in the 200 Areas. Operations in the process enclosure will be performed remotely from an operating gallery using manipulators, positioning tables, and cranes controlled via CCTV/viewing windows. Waste materials requiring further processing (i.e., shredding, grouting, solidification, and immobilization) will be packaged for transfer to the special processing operational area within WRAP.

The WRAP Module 2 RH Facility will process retrieved and newly generated RH-TRU and LLW-RH wastes via separate processing campaigns. Waste processing will include waste receipt, assaying, smear sampling, plasma melting, radionuclide NDA measurement, repackaging, canister welding, and cask handling. The MWTF will provide the necessary LLMW treatment processed to enable disposal in accordance with all applicable regulations. The MWTF will provide LLW pretreatment and solidification of metallic wastes, lead melting, and solidification of sludge and ion exchange resins. The LLMW requiring incineration will be repackaged and transported to INEL for treatment.

With the 1991 Bush Budget guidance this project will slip a minimum of two years. Because of the capital funding cycle, the earliest Line Item that this Project could achieve would be a 1995 Line Item.

FUNDING BASIS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9218-2K-0

The WRAP Module 2 cost estimate is based on an engineering study. The capital costs have been escalated to the mid-point of construction.

PRIORITY RATIONALE:
This work is considered a priority 2 because WRAP is identified in the Tri-Party Agreement as Milestone M-19-00.

LEVEL OF CONFIDENCE:
The level of confidence is considered low because the capital cost estimates are based on preconceptual information.

ACCOMPLISHMENTS TO DATE:
Completed WRAP Module 2 Engineering Study in February 1990.

ACTIVITY ALTERNATIVES:
Privatization of a part or all of the WRAP Facility is being pursued in parallel with the normal budget activities. The privatization program could offer a reduction in capital appropriations, but the program is still in its early stages and many obstacles are yet to be overcome before this could be implemented. After October 1992, this alternative will no longer be valid because capital appropriations will have been allocated.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT	REF
LINE ITEMS					
	95L-GFW-100	WRAP FACILITY MODULE 2 (93-D-173)	145000		91156

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9219-2K-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0302,0347
FACILITY: SOLID WASTE PERMITTING
TITLE: SOLID WASTE MANAGEMENT PERMITTING (W2K)
PRIORITY: 2 NEPA: N/A
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: PERMIT-007 TPA MS: M-20
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING					2410	890	425	395	395
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	2410	890	425	395	395

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== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/30/92	>SUBMIT TRUSAF PART B PERMIT APPLICATION		M-20-23
11/30/92	>SUBMIT ASHPIT DEMOLITION SITE CLOSURE PLAN		M-20-26
11/30/92	>SUBMIT HANFORD PATROL ACADEMY DEMOLITION SITES PART B PERMIT APPL		M-20-25
11/30/92	>SUBMIT E-8 BORROW PIT DEMOLITION SITE CLOSURE PLAN		M-20-28

== NARRATIVE ==

ACTIVITY DESCRIPTION:

~~Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all Tri-Party Agreement (TPA) milestones are subject to renegotiation.~~

~~The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.~~

* WR N/A

This activity supports the preparation and approval of Resource

Revision is not included in Headquarters data disks, or Richland
erations data disks, due to late receipt of revision.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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Conservation and Recovery Act (RCRA) Dangerous Waste Permit Applications and Closure Plans for existing and new Solid Waste management treatment, storage, and disposal facilities (see also RL 9201-2K for 1990-1991 funding). This includes negotiating resolution to Notice of Deficiencies (NOD) issued by the regulatory agencies and addressing comments received during the public review process. The permit process will take multiple years to complete on large treatment projects such as the Waste Receiving and Processing facility because all necessary design information will not be available at the time of permit submittal. As the project progresses and detailed design information becomes available it will be incorporated into the permit. All activities included are necessary to meeting milestones established in the TPA.

FY 1991: (See sheet RL 9201-2K for FY 1991 Permitting activities.)

FY 1992: Work will continue on finalization of the WRAP and RMW Part B Permit Applications as required to support submittal in October 1992. Additional activities will be required to resolve NOD comments and support issuance and modification of the Part B Permit Applications. Development activities will also be initiated or continued for the preparation of Part B Permit Applications for the Transuranic Waste Storage and Assay Facility (TRUSAF) and the Hanford Patrol Academy Demolition Site. The TPA requires submittal of the TRUSAF Part B by June 30, 1992 (TPA Milestone M-20-23), with the Hanford Patrol Academy Demolition Site following by November 30, 1992 (TPA Milestone M-20-25). The E-8 Borrow Pit Demolition Site (TPA Milestone M-20-28) and Ash Pit Demolition Pit (TPA Milestone M-20-26) closure plans will be prepared and submitted to the regulatory agencies by November 30, 1992.

FY 1993: The costs begin to reduce in 1993 as the majority of the permit preparation has been completed and primary activities shift to resolution of Notice of Deficiencies. Final preparation activities required for submittal of the TRUSAF and Hanford Patrol Academy Demolition Site Part B Permit Applications and Closure Plans for the E-8 Borrow Pit and Ash Pit Demolition Sites will continue.

FY 1994 through FY 1996: Activities include maintenance of permits and closure plans issued for all waste management units as necessary to comply with state and federal regulations.

FUNDING BASIS:
Costs were estimated based on the actual preparation costs incurred in the completion of other RCRA Part B Permits of similar size and complexity (616 Building Dangerous Waste Permit).

PRIORITY RATIONALE:
This activity is required in the Tri-Party Agreement (see Milestone M-20).

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

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LEVEL OF CONFIDENCE RATIONALE:
Several RCRA permits have been completed at the Hanford Site and submitted to the regulatory agencies. This experience has resulted in a level of understanding of the technical content and time required to complete a permit. A high level of confidence would have been applied except for the Low-Level Burial Grounds and WRAP Permits which are more complex and have higher levels of uncertainties.

ACCOMPLISHMENTS TO DATE:
The 616 Nonradioactive Dangerous Waste Storage Facility Part B Permit Application was submitted to Ecology/EPA by July 31, 1989, meeting the TPA Milestone M-20-02.

The Low-Level Burial Grounds Dangerous Waste Part B Permit Application was submitted to Ecology/EPA by December 31, 1989, meeting TPA Milestone M-20-02.

ACTIVITY ALTERNATIVES:
The permit applications could be deferred resulting in missing the compliance agreement milestones. Waste receipt operations and waste generating activities would be suspended indefinitely. Enforcement action by the regulatory agencies would occur for operating a RCRA facility without the appropriate permits.

Prepared by: GT DUKELOW

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9300-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: STORAGE
TITLE: SST PROGRAM SUPPORT (W3B)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	1933	1785	2050	2050	2150	2150	2150	2150	2150
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	1933	1785	2050	2050	2150	2150	2150	2150	2150

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>FIVE YEAR PLAN UPDATE (ANNUAL)		
9/30/92	>SST SAR		
9/30/93	>SALTWELL RECEIVERS AND TRANSFER PIPING SAR		

== NARRATIVE ==

ACTIVITY DESCRIPTION:

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide program management support to monitor, analyze, report and control the SST Stabilization and Maintenance End Function. This includes: development of schedules and plans; manage costs; schedule and technical performance; preparation and evaluation of budget scenarios and change requests; preparation of programmatic and budget briefings for WHC and DOE management; and capital and expense budget plans,

priorities and projections.

Provide engineering management systems support. This includes: configuration management; operating document control; engineering document release stations and record retention of release of engineering documents; control and release of engineering change notices; configuration (database) accountability for engineering and operating documents; and assurance of revision control so latest approved documents are used in the field.

Maintain equipment and construction projects for the procurement quality assurance program. This includes modification and maintenance of the quality assurance programs in accordance with WHC and DOE requirements; retention and retrieval services for project/procurement quality records; equipment and construction quality assurance and SST equipment vendor submittal reviews, and source inspections for CENRTC and expense-procured equipment.

Prepare, revise and maintain safety analysis reports for operating activities. This includes: existing SAR upgrades to NRC Regulatory Guide 3.26; preliminary safety evaluations; PSARs and FSARs for construction projects and coordination for all organizations required to support preparation, and approval of the SST SARs called out in the SAR Program Plan.

Provide safety review and integration support and regulatory analysis support to ensure continued safe operating conditions. This support includes: design/document review coordination, operating procedure review coordination, and independent safety readiness review coordination (for interim stabilized SSTs); safety committee support; and safety appraisals of SST operations to identify deficiencies and develop corrective actions.

Includes funding assessments (not in original plan) for the SST end function. This includes: laundry; replacement and repair of SWP clothing; decontamination and refurbishment of face masks and electrical power bills for the 12 SST farms and associated facilities.

FUNDING BASIS:
Operating estimates are based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in long-range plans.

PRIORITY RATIONALE:
This activity is considered Priority 1 in order to maintain program continuity.

LEVEL OF CONFIDENCE RATIONALE:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9300-3B-0

Level of confidence is high based on past years' performance of these same tasks.

ACCOMPLISHMENTS TO-DATE:
FY 1991 Five-Year Plan and FY 1991 Budget Submittal completed in FY 1989. FY 1989 Program Plan and Quarterly Updates completed. Draft Capital Asset Management Plan (CAMP) and draft FY 1992 Five-Year Plan completed. Resource-loaded End Function Level II and III planning schedules completed.

ACTIVITY ALTERNATIVES:
The alternative is reduced level of support to safety reviews, quality assurance, budget controls and financial reporting.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by:
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9301-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: STORAGE
TITLE: SST STORAGE PACEE (W3B)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

			BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0			100	100	100	100	100
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	100	100	100	100	100

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $100 K.

Provide definition and administration of small projects, GPP and line item capital work for storage of SST waste for the SST Stabilization and Maintenance End Function. Prepare engineering studies and function design criteria.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9301-3B-0

Prepare conceptual designs, cost estimates and schedules, and project implementation paperwork needed to meet Congressional budget cycle validation and funding.

Administer cost and schedule control and project coordination during definitive design, construction and acceptance testing phases of work and provide design review for all phases of capital work.

There are currently no GPPs or LIs for SST storage identified in engineering studies. As required, these will be included in future years' revision to this ADS.

FUNDING BASIS:
Operating estimates are based on trends consistently applied year-to-year in accordance with objectives identified in long-range plans.

PRIORITY RATIONALE:
This activity is Priority 3 based on need to maintain environmental controls and worker protection within DOE and contractor requirements.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is medium. The costs of the engineering studies and evaluations are stable, based on past experience.

ACCOMPLISHMENTS TO-DATE:
There are no accomplishments to date as this is projected new scope not expected to begin until FY 1992.

ACTIVITY ALTERNATIVES:
Continued deterioration of existing facilities, or failure to support correction of SST regulatory deficiencies which may be identified.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: (M Gerton for)
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9302-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: STORAGE
TITLE: SST STORAGE OPERATIONS (W3B)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, RCRA, CERCLA, FED
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	8529	8198	8866	8866	9309	9309	9309	9309	9309
CAPITAL EQ	246	530	285	285	720	570	420	270	420
GP PROJECTS									
LINE ITEMS									
TOTAL	8775	8728	9151	9151	10029	9879	9729	9579	9729

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Provide for storage of single-shell tank (SST) waste for the SST Stabilization and Maintenance end function. This includes tank surveillance data collection and analysis of 149 SSTs, and operation and maintenance of equipment necessary to ensure SST safety and continuity of operation.

Operate storage and surveillance equipment. This includes: active exhausters; catch tanks and their pump-out routes; routine decontamination and support for maintenance crews; perform facility inspections, audits, housekeeping and training. SST stabilization and

isolation are not in work scope.

Collect surveillance data for the monitoring of SSTs and associated pipelines. This includes: all surface levels, temperature (SD-WM-TI-357, Waste Storage Tank Status and Leak Detection Criteria, Rev.1), hydrogen, and psychometric data specified by criteria; in-tank photography required to support routine surveillance and tank anomaly investigations; tank dome surveys; dry well readings; laterals swab riser readings of transfer lines; and operation of the SST portion of the computer-automated surveillance system (CASS).

Maintain SST storage equipment and facilities. This includes: fire systems maintenance support; preventive maintenance; instrument and equipment calibrations, repairs, modifications and upgrades; maintenance engineering support for updating PM and calibration procedures, spare part reviews, upgrades and OTP review; ancillary services such as logging removal and masonry maintenance; operation of new cathodic protection systems as they are activated; training and shop fabrication services.

Provide engineering support for SST storage activities. This includes: technical guidance for the day-to-day operation of the facilities; engineering training; preparation and revision of operational procedures and specifications; resolution of maintenance/operating problems; independent tank anomaly investigations and surveillance data review; mechanical and electrical design of storage and surveillance equipment; instrumentation and tooling for SST storage activities; troubleshooting; procurement documentation review; failure analysis; and nonconformance reports for the WHC Fabrication Shop and field maintenance activities.

Provide technical analysis of SST surveillance data. This includes: review and evaluation of SST surveillance data; tank integrity evaluations; the SST portion of CASS; software maintenance and development, and system management functions; and procedure and data analysis revisions that enhance prompt detection, evaluation, notification, and appropriate corrective action of primary tank leakage.

The operating increase results from finalizing the single-shell workscope after the division of the combined single-shell/double-shell tank end function. The division occurred at the beginning of FY 1990.

FUNDING BASIS:
Operating estimate based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in long-range plans.

The capital equipment increases are for improved surveillance equipment

needed to perform leak detection and tracking in the SST farms.

PRIORITY RATIONALE:
This activity is Priority 1 because it ensures the health and safety of on-site and off-site populations and the protection of the environment.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the budget projection is high based on past years' performance of these tasks.

ACCOMPLISHMENTS TO-DATE:
A total of 701 Preventative Maintenance (PM) activities were completed in FY 1989 in both DST and SST Farms (see ADS #9108). The PMs are necessary to assure the safety and reliability of equipment and facilities.

A total of 7,202 Plant Instrumentation Surveillance, Calibration, and Evaluation System (PISCES) checks were completed in FY 1989 in both DST and SST Farms (see ADS #9108). The PISCES are necessary to assure consistent, reliable readings from plant instrumentation.

A PISCES reduction program was initiated in FY 1989. This program reduced the number of necessary PISCES by 30 percent.

The computerized surface level trending system was installed and turned over to surveillance analysis personnel in September 1989.

As examples of tank waste surveillance activities 93,000 waste surface level readings were taken between August 1989 and mid-February 1990; between October 1989 and mid-February 1990 10,000 temperature readings were taken. These examples include readings in DST and SST farms (see ADS 9108 for DSTs). These examples are typical of the data routinely collected, analyzed, and systematically reviewed for trends which could predict unplanned or unforeseen changes in tank conditions.

ACTIVITY ALTERNATIVES:
There are no serious alternatives to this activity. Continued confinement of high-level and low-level liquid waste depends on these activities. Failure to fund this activity will result in offsite releases and harm to plant workers and the public.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9302-3B-0

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9304-3B-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT
TITLE: SST TREATMENT PACEE (W3B)
PRIORITY: 1
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): M
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0057
NEPA: N/D
DOE PROGRAM: EM
CATEGORY: WM
TPA MS: M-05
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	321	560	690	690	2700	2500	1600	600	300
CAPITAL EQ					1200	1200			
GP PROJECTS									
LINE ITEMS						4000	8000		
TOTAL	321	560	690	690	3900	7700	9600	600	300

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/95	>COMPLETE W-139 TANK 106-C STABILIZATION PROJECT		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

This activity is currently scoped to provide for modifications needed to stabilize tank 106-C. This tank received Sr-90 and Cs-137 boiling waste; the radiolytic heat generation precludes stabilizing the tank using jet-pumping (see ADS 9305 for stabilization treatment of SSTs). If the liquid is removed without other provisions for cooling the tank, the tank solids could overheat the concrete structure. Means of

stabilization include partial waste removal. The systems engineering study is underway to select the most viable alternative (see ADS 9306). Stabilization is required to meet TPA milestone M-05-08. Initiate the funding cycle for FY 1993 line item. Complete activities prior to interim stabilization of the above mentioned tanks (TPA Milestone M-05-08).

In order to assure TPA milestone completion for this project definition is planned via advanced conceptual design in FY 1992. Retrieval equipment and transfer pumps will be procured in FY 1992 and Fy 1993.

FUNDING BASIS:
Operating estimate based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in site long-range plans. Costs escalated in accordance with site guidelines. A systems engineering study completed during FY 1990 will provide estimate refinement.

PRIORITY RATIONALE:
This activity is Priority 1 based on potential environmental damage from leaks from the unstabilized SSTs. This capital support is needed to maintain environmental controls and worker protection within DOE and contractor requirements.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is medium. The cost of the engineering studies and evaluations are stable based on past experience. The outcome of these studies lowers the confidence to medium.

ACCOMPLISHMENTS TO-DATE:
This is new scope. Technical definition and accomplishments supporting the scope are on ADS 9306.

ACTIVITY ALTERNATIVES:
There are no serious alternatives to this activity. Continued confinement of high-level and low-level liquid waste depends on these activities. Failure to fund this activity will result in offsite releases and harm to plant workers and the public.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	93L-GFW-139	TANK 106C STABILIZATION PROJECT	12000	91940

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9304-3B-0

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton for 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9305-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: TREATMENT
TITLE: SST TREATMENT OPERATIONS (TPA)(W3B)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-05
REGULATORY DRIVERS: ORD, FED, DOE, CERCLA, RCRA
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	2350	6440	8213	8213	8300	8300	8300	7550	800
CAPITAL EQ	170	897	897	897	1337	1300	390	350	1300
GP PROJECTS									
LINE ITEMS									
TOTAL	2520	7337	9110	9110	9637	9600	8690	7900	2100

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>INTERIM STABILIZE 5 SSTs (TOTAL 106 OUT OF 149)	RLM90.08	M-05-02
9/30/91	>INTERIM STABILIZE 9 SSTs (TOTAL 115 OUT OF 149)		M-05-03
9/30/92	>INTERIM STABILIZE 9 SSTs (TOTAL 124 OUT OF 149)		M-05-04
9/30/93	>INTERIM STABILIZE 9 SSTs (TOTAL 133 OUT OF 149)		M-05-05
9/30/94	>INTERIM STABILIZE 9 SSTs (TOTAL 142 OUT OF 149)		M-05-06
9/30/95	>COMPLETE SST INTERIM STABILIZATION (TOTAL 147 OUT OF 149)		M-05-00
9/30/95	>INTERIM STABILIZE 9 SSTs (TOTAL 147 OUT OF 149)		M-05-07
9/30/96	>INTERIM STABILIZE TANKS 241-C-105 AND 241-C-106		M-05-08
9/30/96	>COMPLETE INTERIM STABILIZATION AND ISOLATION OF ALL 149 SSTs	RL090.10	M-05-09

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9305-3B-0

== NARRATIVE ==========

ACTIVITY DESCRIPTION:

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Due to insufficient funding at the FY 1991 Bush Budget guidance, this and all TPA milestones are subject to renegotiation.

Provide for treatment of SST waste for the Stabilization and Maintenance end function. This includes: interim stabilization and isolation of SSTs by removing approximately 5M gallons of residual liquid from 48 SSTs and isolating 56 to meet milestones in the Hanford Tri-Party Agreement; designing, constructing and operating stabilization systems for high-heat content SSTs (105-C and 106-C); emergency pumping of suspected leaking SSTs.

Install and operate stabilization and isolation equipment. This includes: sampling SST liquids; installing liquid observation wells, saltwell screens and jet pumps; operating the equipment and associated receiving facilities.

Maintain equipment and receiving facilities. This includes: routine calibration and preventive maintenance; troubleshooting; repair and equipment upgrades; cutting and capping piping for tank isolation, and installation of weatherproof isolation cover on tank pits.

Provide engineering support required for SST interim stabilization and isolation activities. This includes: technical guidance for the day-to-day operation of the facilities; engineering training; preparation and revision of operational procedures and specification; resolution of maintenance/operating problems, and alternative operating scenario evaluations; mechanical and electrical design of equipment; instrumentation and tooling for SST interim stabilization and isolation activities; troubleshooting; procurement documentation review; failure analysis and nonconformance reports for the WHC Fabrication Shop; field maintenance activities; analytical laboratory support for routine sample measurements; final product quality; and requests supporting special studies and evaluation of unplanned events and process upsets.

FUNDING BASIS:
Operating estimate based on historical costs and trends consistently applied year-to-year in accordance with objectives identified in long-range plans.

FY 1990 funding does not reflect an additional $3.9M in operating B/O.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9305-3B-0

Variability in funding requirements results from the number of tanks scheduled each year for stabilization.

The increases in capital equipment results principally from procurement of portable exhausters needed to ventilate the tanks during stabilization (approximately $500K each; 5 required: 1 - FY 1991; 2 - FY 1992; 2 - FY 1993).

FY 1991 funding guidance has not been received for Technology Development activities described in ADSs 9303 and 9306. TD milestones on those sheets assume FY 1991 and outyear Required funding levels for completing the SST ferrocyanide exothermic investigation and engineering development for stabilizing high-heat SSTs 105-C and 106-C. If the FY 1991 TD funding is not received, funding will have to be transferred from this ADS and completion of TPA milestones M-05-03 9/91 and M-05-04 9/92 delayed.

PRIORITY RATIONALE:
This activity is Priority 1 because it ensures the health and safety of on-site and off-site populations and the protection of the environment. There is currently 5M gallons of liquid remaining in the SSTs, which could leak to the environment if it is not pumped out.

LEVEL OF CONFIDENCE RATIONALE:
Level of confidence in the budget projection is high based on past years' performance of these tasks.

ACCOMPLISHMENTS TO-DATE:
Three SSTs were interim stabilized during FY 1989. This met the TPA and DOE-RL and DOE-HQ milestones. The tanks stabilized are 241-A-102, 241-BX-104, and 241-C-104.

Three SSTs were interim isolated during FY 1989. This met a DOE-RL and DOE-HQ milestone. The tanks isolated are 241-A-103, 241-BX-101, and 241-BY-110.

ACTIVITY ALTERNATIVES:
Defer interim stabilization and isolation of SSTs until emergency pumping is required as a result of leaking tanks.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: W Mettler for
RE GERTON 05-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9308-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: STORAGE
TITLE: SST STORAGE OPERATIONS ASSURANCE (W3B)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING		750			800	800	800	800	800
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	750	0	0	800	800	800	800	800

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/91	>IMPLEMENT FIFTH (TRAINING) SHIFT		
9/30/91	>IMPLEMENT JOB CONTROL SYSTEM		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ directions, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $750 K.

This activity provides production control and training enhancements to support SST storage operations activities (see ADS 9310 for SST treatment portion). It supports implementation of the Job Control System which automatically tracks ongoing work (DOE Order 4330.1). The Fifth Tank

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9308-3B-0

Farm Operations Shift crew is added to meet training requirements of DOE Orders 5480.5 and 5480.18. DOE Order 5480.18 requires that plant forces be accredited using operator/supervisor job-analysis based training, and outlines the requirements for lesson planning, instructional materials and examinations, the use of mockups and walkthroughs for job certification, and specifies examination frequencies. Currently, 200 Area Tank Farm Operations does not have adequate operating staff to release personnel so they can attend required training.

FUNDING BASIS:
The Job Control System implementation and Fifth (training) Shift estimates are based on an implementation plan and size of the Fifth Shift to achieve accreditation.

PRIORITY RATIONALE:
Priority 3 because this enhances current practices in the Tank Farms which reduces the risks and costs of current operations.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the near-term tasks/schedules is medium. Job control and Fifth Shift estimates are based on planning documentation.

ACCOMPLISHMENTS TO-DATE:
The planning for implementation of the Fifth Shift has been completed and the job control implementation plan has been completed.

ACTIVITY ALTERNATIVES:
These tasks assure disciplined work control in Tank Farms and continuing compliance with training requirements. If not funded, a steadily decreasing level of plant operability is expected through incomplete job planning and tracking, less time spent in the field due to expanding classroom training requirements, and delays in meeting the new DOE accreditation order.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9309-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0322
FACILITY: STORAGE
TITLE: SST STORAGE OPERABILITY RESTORATION (W3B)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING		1900	0	0	6100	2000	2000	2000	2000
CAPITAL EQ			0	0	2150	1020	480	450	450
GP PROJECTS									
LINE ITEMS									
TOTAL	0	1900	0	0	8250	3020	2480	2450	2450

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ directions, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1992 Requirements case for this ADS is $3250 K.

This activity includes engineering, operations, and maintenance staff increases to repair or replace the growing backlog of failed, obsolete and partially disabled equipment in the SST farms and re-establish as-built configuration and spare equipment inventories. This scope will assure compliance with DOE Order 4330.4, Real Property Maintenance,

FY 92 ADS ID: 9309-3B-0

and 5480 (Draft) Maintenance Program for DOE Reactor and Non-Reactor Facilities.

Renovate, modify and improve SST farm facilities to restore original design capabilities and extend operating lifetimes for waste storage. Remove or stabilize surface contamination to achieve "clean farm" status in all SST farms. Prepare engineering studies, design criteria, environmental evaluations, safety evaluations, and appropriate permit applications for future capital project modifications.

The activity provides for improved surveillance of radioactive tank waste. The leak detection thresholds required by CERCLA and RCRA regulations cannot be met because of the design of the Single-Shell Tanks. The regulators consider the tanks actively managed. Both the regulators and the General Accounting Office, which conducted a lengthy evaluation of Single-Shell Tank Surveillance and Stabilization activities, expect improved surveillance technology will be applied to reduce the existing leak detection threshold and improve radioactive waste plume tracking in the soil from old leaks.

FUNDING BASIS:
The funding basis is evaluation of the existing backlog of work orders, preliminary cost estimates and technical discussions with Operations and Engineering personnel. FY 1992 required funding is necessary to complete backlog reduction by FY 1993. Continued funding of maintenance activities is identified in order to prevent new accumulation of backlogged work.

PRIORITY RATIONALE:
The operability restoration program is designated Priority 3 based on age-related deterioration of operating capabilities. The backlog of work orders must be reduced, and facility maintenance must be increased to maintain environmental controls and worker protection within DOE and contractor requirements.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is considered medium based on the understanding of tasks in the work order backlog and historical costs of completing similar tasks.

ACCOMPLISHMENTS TO-DATE:
Due to the lack of funding, there are no significant accomplishments to-date. Major upgrades have been identified in the Capital Asset Management Plan and incorporated in the budget planning.

ACTIVITY ALTERNATIVES:
The alternative is continued derating of existing facilities' performance. Maintenance costs, lost operating time, administrative controls, worker safety risks and the potential for unapproved

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9309-3B-0

environmental releases are expected to increase and existing services continue to fail and remain unrepaired.

Prepared by: TD Blankenship 5/4/90
TD BLANKENSHIP

Approved by: RE Gerton for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9310-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0057
FACILITY: TREATMENT
TITLE: SST TREATMENT OPERATIONS ASSURANCE (W3B)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	450	0	0	500	500	500	500	500
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	450	0	0	500	500	500	500	500

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or environment/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $450 K.

This activity provides production control and training enhancements to support SST treatment operations activities (see ADS 9308 for SST storage portion). It supports implementation of the Job Control System which automatically tracks ongoing work (DOE Order 4330.1). The Fifth Tank Farm Operations Shift crew is added to meet training requirements

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9310-3B-0

of DOE Orders 5480.5 and 5480.18. DOE Order 5480.18 requires that plant forces be accredited using operator/supervisor job-analysis based training, and outlines the requirements for lesson planning, instructional materials and examinations, the use of mockups and walkthroughs for job certification, and specifies examination frequencies. Currently, 200 Area Tank Farm Operations does not have adequate operating staff to release personnel so they can attend required training.

FUNDING BASIS:
The Job Control System implementation and Fifth (training) Shift estimates are based on an implementation plan and size of the Fifth Shift to achieve accreditation.

PRIORITY RATIONALE:
Priority 3 because this enhances current practices in the Tank Farms which reduces the risks and costs of current operations.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence in the near-term tasks/schedules is medium. Job control and Fifth Shift estimates are based on planning documentation.

ACCOMPLISHMENTS TO-DATE:
The planning for implementation of the Fifth Shift has been completed and the job control implementation plan has been completed.

ACTIVITY ALTERNATIVES:
These tasks assure disciplined work control in Tank Farms and continuing compliance with training requirements. If not funded, a steadily decreasing level of plant operability is expected through incomplete job planning and tracking, less time spent in the field due to expanding classroom training requirements, and delays in meeting the new DOE accreditation order.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton for 5-4-90
RE GERTON

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9311-3B-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: STORAGE
TITLE: SST TECHNICAL SAFETY APPRAISAL (W3B)
PRIORITY: 3 NEPA: N/A
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE *		
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	0	0	0	0	1105	500			
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	0	0	1105	500	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>OSR REVIEWS AND IMPROVEMENTS		
9/30/90	>TRAINING PROGRAM EVALUATIONS AND IMPROVEMENTS		
12/31/90	>INCREASED CHEMICAL CHARACTERIZATION AND CONTROL OF TANK WASTES		
3/31/92	>SAFETY AND QA STAFF INCREASES		
5/31/93	>PORTABLE EXHAUSTER IMPROVED DESIGN AND REPLACEMENT		
9/30/98	>SAR UPDATES		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget guidance.

Per DOE-HQ direction, the Field Office (DOE-RL) requirements case for Priority 3 and 4 ADSs not required to meet Compliance Agreements or

environment/safety regulations have been deleted and added to FY 1992 and outyear budgets. FY 1991 Requirements case for this ADS is $1105 K.

Perform tasks associated with SST stabilization and maintenance end function activities in order to resolve items identified as a result of the Technical Safety Appraisal (TSA) performed by DOE-HQ. Detailed required improvements and upgrades have been included as identified in the Department of Energy (DOE) Tank Farms Technical Safety Appraisal (TSA) and the Westinghouse TSA Corrective Action Plan.

Examples of the major activities associated with the TSA include:

- o OSR reviews and improvements
- o SAR updates (partially covered in ADS 9300)
- o Maintenance procedures (PMs, PISCES) reviews and improvements
- o Training program evaluations and improvements
- o Air effluent monitoring upgrades to meet ANSI requirements
- o Installation of portal monitors
- o Cognizant engineer accelerated training and certification
- o Portable exhauster improved design and replacement
- o Safety and QA staff increases
- o QC Inspector training and certification
- o Additional air sample data and radiation work permit trending
- o Workplace air monitoring upgrades
- o Increased chemical characterization and control of tank wastes
- o Evacuation bus driver training
- o Purchase computer equipment and implement area radiation monitoring (WRAM)

Some of the originally scheduled completion dates have been delayed due to staff and budget limitations. The Corrective Action Schedule has been rebaselined and status is updated monthly to DOE-RL.

FUNDING BASIS:
Preliminary estimates and workscope generated in discussions with Operations, Engineering and Projects personnel.

PRIORITY RATIONALE:
This activity is designated Priority 3 based on the identification of required actions identified in the TSA completed in FY 1989.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence is considered medium because long-term continued costs are not yet defined precisely. The level of confidence will increase as the preliminary tasks are completed.

ACCOMPLISHMENTS TO-DATE:
The TSA Corrective Action Plan was issued in July 1989. Monthly

FY 92 ADS ID: 9311-3B-0

progress reports are being issued.

ACTIVITY ALTERNATIVES:
The alternative to this activity is delay resolution of findings and observations identified in the Tank Farm Operations TSA conducted by DOE-HQ.

The ability to respond and correct deficiencies noted on past and future audits and inspections will be greatly reduced. TSA corrective actions are being performed to the extent that existing routine tasks can be deferred.

Prepared by: TD Blankenship 5/2/90
TD BLANKENSHIP

Approved by: RE Gerton for 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9400-4A-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0002
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR SURV & CONTROL-GENERAL PROGRAM SUPPORT (W4A1)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	2553	1728	2333	2333	2440	2440	2440	2440	2440
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	2553	1728	2333	2333	2440	2440	2440	2440	2440

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Task - Environmental Surveillance Health Physics Support

Provides health physics support for environmental surveillance of gaseous and liquid effluents and surface contamination. Supports the operation of the gaseous effluent monitoring systems at the PUREX Plant, Plutonium Finishing Plant and 222-S Laboratory. Supports liquid effluent monitoring at waste discharge sites. These activities include the routine collection and analysis of air and water samples to ensure compliance with the Environmental Compliance Manual, WHC-7-5, and DOE Order 5480.11. Performs surveys of stabilized sites to insure absence

of biotic transfer of radionuclides to surface areas. Includes radiation protection technologist training and radiological safety engineering which support environmental surveillance activities. Also includes operation and maintenance of the mobile surface contamination monitor to assess the level of surface contamination throughout the Hanford Site.

Task - Program Management, QA, and Safety

Provides program management, financial and administrative support, quality engineering review of program activities and documentation, and independent safety review of the program as required by DOE Order 5480.5.

Task - Hanford Privatization Conference

In FY 1990, supported the Hanford Privatization Conference sponsored by DOE-RL as an informational meeting with representatives of private industry to address opportunities for private sector participation in Hanford Site Activities.

FUNDING BASIS:

	1990	1991---------->			1992	1993	1994	1995	1996
Task	Approp	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
Eff Mon Health P	966	648	967	967	1015	1015	1015	1015	1015
Envir Surv HP	666	500	700	700	735	735	735	735	735
Prog Mgmt & QA	444	460	466	466	490	490	490	490	490
Privatization	200								
Safety	217	120	200	200	200	200	200	200	200
HEC EA	60								
	2553	1728	2333	2333	2440	2440	2440	2440	2440

Increases reflect no increase in workscope and include inflation only to 1992.

PRIORITY RATIONALE:
Priority 1. These activities are essential for the conduct of the Environmental Surveillance and Control Program. Health Physics directly supports protection of plant workers, the public, and the environment through the identification of potential radioactive contamination. QA and Safety support ensure that operations comply with regulations and safe plant practices intended to protect plant workers, the public, and the environment.

LEVEL OF CONFIDENCE RATIONALE:
High. Budget projections are based on actual costs and operating experience over the past several years. No major change in workscope is anticipated.

ACCOMPLISHMENTS TO DATE:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9400-4A-0

Environmental surveillance activities were conducted in a safe and cost effective manner. The Hanford Privatization Conference was held in Richland, Washington as scheduled and received a favorable response from the private sector.

ACTIVITY ALTERNATIVES:
Failure to fund these activities would result in non-compliance with DOE Orders and Plant Operating Procedures. Without general program support, the program could not function. Health Physics, Safety, and QA support is essential to the environmental surveillance required to protect plant personnel, the public, and the environment.

Prepared by: DA Austin for
BA AUSTIN

Approved by: RE Gerton authorized for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9401-4A-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0001
FACILITY: DISPOSAL
TITLE: ENVIR SURV & CONTROL-TREATED EFFLUENT DISPOSAL (W4A2)
PRIORITY: 2 NEPA: EA
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: HEC-B&C&L& TPA MS: M-17
REGULATORY DRIVERS: DOE, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	2902	1883	4898	2998	4205	6875	6525	4925	0
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS		13600			12700	25900	36200	10200	0
TOTAL	2902	15483	4898	2998	16905	32775	42725	15125	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>SUBMIT TO DOE-HQ THE ANNUAL STATUS REPORT ON IMPLEMENTATION OF PLAN AND SCHEDULE RELATED TO M-17-00		
12/31/91	>CEASE ALL DISCHARGES TO 300 AREA PROCESS TRENCHES		M-17-06
6/30/95	>COMPLETE 200 AREA TREATED EFFLUENT DISPOSAL SYSTEM		M-17-08
6/30/95	>DISCONTINUE DISPOSAL OF CONTAMINATED LIQUIDS INTO THE SOIL COLUMN AT THE HANFORD SITE		M-17-10
6/30/95	>COMPLETE 300 AREA TREATED EFFLUENT SYSTEM		M-17-09

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY1991 Bush Budget Guidance, these and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY1991 Bush Budget guidance.

Task - Discontinue Disposal of Contaminated Liquids to the Soil Column

The DOE has committed to the U.S. Congress to discontinue disposal of contaminated liquids to the soil column at the Hanford Site by June 1995. This activity supports the preparation of the cleared Annual Status Report as well as informal monthly and semi-annual reports to DOE-RL. The purpose of the Annual Status Report is to document the progress, plans and schedules to meet this congressionally mandated goal. Also funded here are engineering studies to support this effort. In FY 1990, a study of radionuclide characterization methods is being conducted. Future engineering studies will be performed to review and evaluate all available liquid effluent treatment technologies to facilitate selection of the technology for the liquid effluent treatment systems at Hanford.

Task - 200 Area Treated Effluent Disposal Facility

This activity provides expense support for the Hanford Environmental Compliance Line Item (Line Item No. 89-D-172) subproject 200 Area Treated Effluent Disposal Facility (92L-GFW-049, TEC $45.5M). There are 33 liquid effluent streams currently being discharged to soil column disposal sites on the Hanford Site. Twenty seven of these streams are in the 200 Areas and total 6,260 million gallons per year. Beginning June 1995, these effluents will be treated by the 200 Area Treated Effluent Disposal Facility prior to discharge. The conceptual design and Preliminary Safety Evaluation will be completed in FY 1990. Advanced conceptual design will begin in FY 1990 with completion scheduled for FY 1992. Equipment testing and effluent characterization work will begin in FY 1990 and continue through FY 1992. In FY 1991, a source control engineering study will be completed to support waste minimization activities. Permitting activities will start in FY 1992 and preparation of the Facility Safety Analysis report will begin in FY 1993.

Task - 300 Area Treated Effluent Disposal Facility

This activity provides expense support for the Hanford Environmental Compliance Line Item (Line Item No. 89-D-172) subproject 300 Area Treated Effluent Disposal Facility (92L-GFL-045, TEC $10M). More than sixty contributors discharge into the 300 Area process sewer system which is disposed of in the process trenches. Special studies to identify means to cease discharges to the trenches are completed. Steps include stream elimination, total recycle, and treatment of all of a reduced quantity. Beginning in June 1995, these effluents will be treated by the 300 Area Treated Effluent Disposal Facility prior to

FY 92 ADS ID: 9401-4A-0

discharge. The conceptual design and Preliminary Safety Evaluation will be completed in FY 1990. Equipment testing and effluent characterization work will begin in FY 1990 and continue through FY 1992. In FY 1990, a source control engineering study was completed to support waste minimization activities. Permitting activities will start in FY 1992 and preparation of the Facility Safety Analysis report will begin in FY 1993.

This task is not funded under the 1991 Bush Budget. Failure to fund this task will result in a one year slip in the 300 Area Treated Effluent Disposal System completion.

Operating expenses for the 200 and 300 Area Treated Effluent Disposal systems are included on ADS 9406-4A-0. Facility operations are scheduled to begin in June 1995.

This task is not funded under the 1991 Bush Budget. Failure to fund this task will result in a one year slip in the 300 Area Treated Effluent Disposal System completion.

Task - Treated Effluent Discharge Environmental Assessment

In the requirements funding levels, the preparation of an Environmental Assessment for discharge of the treated effluent is planned. After the effluent streams are treated in the 200 Areas Treated Effluent Disposal Facility, the discharge from that plant will be released to the environment at a point (soil, air, river) yet to be determined. Environmental impacts of this discharge must be assessed.

This task is not funded under the 1991 Bush budget. Work will slip to FY 1992 and FY 1993 and proceed at an accelerated pace in order to support the 1995 goal to discontinue discharge of contaminated liquids to the soil at the Hanford Site. Funding to support 300 Area TEDF prior to FY 1991 is covered in ADS# 5408-EV.

FUNDING BASIS:

	1990	1991---------->			1992	1993	1994	1995	1996
Task	Approp	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
Soil Column	665	669	698	698	740	1000	850	400	
200 TEDS	2237	814	2300	2300	1865	4525	4525	4525	
300 TEDS			1500		1000	750	750		
Treat Efl Disc EA		400	400		600	600	400		
	2902	1883	4898	2998	4205	6875	6525	4925	0

Most of the activities are required expense support to complete the capital project and are a major change in workscope to support timely execution of necessary tasks. Additional engineering studies are required in 1993 and 1994 to complete the soil column commitment.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9401-4A-0

PRIORITY RATIONALE:

Priority 2. Funding for this work supports a congressionally mandated goal to discontinue disposal of contaminated liquids to the soil column at the Hanford Site by June 1995. Postponement of this work could have adverse environmental impacts through continued release of contaminated liquids to the soil column. This activity also supports TPA milestone M-17.

LEVEL OF CONFIDENCE RATIONALE:
Low. Engineering work in support of discontinuing release of contaminated liquids to the soil column has been conducted for several years and costs are known with a high level of confidence. Estimates for construction of the 200 and 300 Area Treated Effluent Disposal Facilities are based on engineering studies and experience in similar construction projects and are known with low to medium confidence level. The level of confidence of the estimate in the required case for preparation of the treated environmental assessment is low. Overall level of confidence is rated low.

ACCOMPLISHMENTS TO DATE:
Issued the Annual Status of the Plan and Schedule to Discontinue Discharge of Contaminated Liquid to the Soil Column as scheduled. Issued the functional design criteria and preliminary conceptual design reports for the 200 Area Treated Effluent Facility.

A source control engineering study was completed to support waste minimization activities in the 300 Area Process Trenches.

ACTIVITY ALTERNATIVES:
Failure to fund these activities would result in failure to meet the congressionally mandated goal of discontinuing disposal of contaminated liquids to the soil column at the Hanford Site by June 1995 and failure to meet the corresponding TPA milestone (M-17-00).

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	92L-GFL-045	HEC/ 300A TRTD EFF DISP (89-D-172)	10000	91146
	92L-GFW-049	HEC/ 200A TRTD EFF DISP (89-D-172)	45500	91147

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9401-4A-0

Prepared by: D A Turner for
BA AUSTIN

Approved by: W Leitheiser for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9402-4A-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0335
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR SURV & CONTROL-ENVIRONMENTAL TECHNICAL STUDIES (W4A3)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE *	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	1515	125	125	0	125	125	125		
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	1515	125	125	0	125	125	125	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
	>BI-MONTHLY STATUS REPORTS TO ECOLOGY AND EPA FOR THE HANFORD SITE LIQUID EFFLUENT STUDY		
8/31/90	>ISSUE FINAL HANFORD SITE LIQUID EFFLUENT STUDY		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Task - Hanford Site Liquid Effluent Study

DOE-RL made a commitment to the Washington State Department of Ecology in May 1989 to perform a study to document the discharge history and chemical characteristics of liquid discharges to the soil column at the Hanford site. The activities conducted as part of this study will

characterize Hanford site liquid effluents, assess waste disposal sites and groundwater contamination, and evaluate the potential for migration of contaminants within disposal site soils. The study consists of the following activities:

Waste Stream Characterization - The characterization of the 33 liquid effluent streams at Hanford will include:

(1) A description of the waste stream, including an evaluation of potential contaminants derived from process knowledge
(2) An evaluation of existing radionuclide and chemical characterization data
(3) A review of the adequacy of the characterization data, and
(4) The collection and analysis of additional samples, if necessary.

This characterization effort will provide the data necessary to determine whether or not a liquid effluent is a dangerous waste according to the Washington State Dangerous Waste Regulations (WAC 173-303). However, the actual designation of the wastes are not included within the scope of this study.

Stream-specific characterization reports will be issued for each of the 33 effluent streams on the Hanford Site.

Waste Site Assessment - This study will provide physical descriptions of the active disposal sites, compile inventories of radioactive and hazardous wastes disposed to those sites and provide an evaluation of any effects of those sites on the unsaturated zone.

Groundwater Monitoring - Conduct groundwater monitoring and sample analysis as required to support the data requirements of the study. Wells selected to be monitored are listed in the Project Plan.

Health Risk Assessment - Analyses will be performed to assess the potential hazard to human health or the environment if contamination is discovered in the groundwater. Contamination is defined as the presence of dangerous waste constituents or radioactivity in concentrations that exceed regulatory limits.

Task - Liquid Effluent Consultants Panel

This activity supports the establishment of a panel of experts for peer review of activities supporting discontinuing disposal of contaminated liquids to the soil column at the Hanford Site. The panel would review available technical information, assess the rationale supporting key technical decisions and ensure that liquid effluent treatment technology for the Hanford Site effluents was selected appropriately.

The FY 1991 Bush budget does not support the task. Work begun in FY

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9402-4A-0

1990 will be postponed until FY 1992 and the duration of this task will be extended through FY 1994.

FUNDING BASIS:

	1990	1991---------->			1992	1993	1994	1995	1996
Task	Aporp	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
Effluent Study	1415								
Consult Panel	100	125	125	0	125	125	125		
	1515	125	125	0	125	125	125		

PRIORITY RATIONALE:
Priority 2. This activity supports an agreement between the DOE-RL and the State of Washington which was made as part of the final negotiations leading to the TPA. After FY 1990, this priority changes to Priority 4. The Liquid Effluent Consultants Panel is a program enhancement.

LEVEL OF CONFIDENCE RATIONALE:
High. The scope of the study is defined in detail and documented in a "Liquid Effluent Study Project Plan".

ACCOMPLISHMENTS TO DATE:
Planned activities were initiated during June 1989. A preliminary waste stream characterization report was issued on schedule August 31, 1989. Bi-monthly status reports required by the agreement have been issued as planned. Stream characterization reports are in preparation.

ACTIVITY ALTERNATIVES:
The only available alternatives to continuing the Liquid Effluent Study would be to either discontinue the study or to extend study completion into FY 1991. The alternative to convening the consultants panel would be to not form this panel and to incorporate additional in house review of liquid effluent treatment technology into ongoing engineering activities. However, the significant political impacts of failing to discontinue discharge of contaminated liquids to the soil on schedule would generate adverse public attention. External peer review will increase the likelihood of successful permitting and scientific/public acceptance of the selected technologies.

Prepared by: BA Austin for
BA AUSTIN

Approved by: RE Gerton 5-4-90
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9403-4A-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0002
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR SURV & CONTROL-SURVEILLANCE AND MAINTENANCE (W4A5)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	4728	5315	5282	5282	6037	5586	5286	5336	5386
CAPITAL EQ	469	1950	1950	1702	1738	1610	610	330	330
GP PROJECTS									
LINE ITEMS									
TOTAL	5197	7265	7232	6984	7775	7196	5896	5666	5716

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
4/30/90	>ISSUE ANNUAL REPORTS ON GASEOUS AND LIQUID EFFLUENT DISCHARGES, SOLID WASTE BURIALS, AND DISCHARGES INTO SOIL		
4/30/90	>TRANSMIT EFFLUENT INFORMATION SYSTEM AND ONSITE DISCHARGE INFORMATION SYSTEM DATA TO IDAHO NATIONAL ENGINEERING LAB		
9/30/90	>COMPLETE INSTALLATION OF RADIONUCLIDE LOGGING SYSTEM CALIBRATION FACILITY		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Task - Cribs, Ponds, and Ditches
Provides operations, surveillance, maintenance, and engineering support for the separations areas' cribs, ponds, and ditches. This includes

drywell monitoring of active cribs; pond and crib level monitoring; effluent flow rate measurements; crib filter changes; dredging ,and drying, of ponds and ditches to maintain flow and infiltration rates; and, maintenance of water meters. Vegetation control is also conducted.
Task - Effluent and Environmental Monitoring
This task supports the development, administration, and maintenance of environmental monitoring and surveillance activities and reporting and monitoring of environmental events within the 200 and 600 Areas of the Hanford Site in accordance with DOE Orders (5820.2A) and the Environmental Compliance Manual (WHC-CM-7-5). This task also supports the 222-S Laboratory analysis of samples from stack, liquid, and ambient air monitors.

Task - Effluent Sampler/Monitor Maintenance
This task supports the maintenance of stack, liquid, and ambient air monitoring equipment, upgrades of specified effluent monitoring systems to comply with regulatory requirements and DOE Orders (5820.2A), and the upgrade and maintenance of procedures as necessary to maintain and calibrate effluent and ambient air monitoring equipment consistent with the requirements of NQA-1.

Task - Seismic Monitoring
This task operates and maintains the seismic monitoring network encompassing the Hanford Site and surrounding portions of Eastern Washington. This task includes the administering of a contract with the University of Washington to perform the reporting of all locatable events recorded by the regional network via a yearly catalog.

Task - Vadose Zone Monitoring
Supports the completion of the Radionuclide Logging System for use in logging wells in the vadose zone. Supports the installation of the borehole calibration models obtained from DOE-GJ for calibration of the Radionuclide Logging System. Significant increases in the FY 1992-1993 period represent needed upgrades in spectral gamma logging system capabilities which have been postponed from earlier requests. Vadose zone monitoring and investigation is essential to understanding of the extent of groundwater contamination at the Hanford Site and therefore the establishment of a technically based plan for cleanup and restoration activities.

Capital equipment for the Environmental Surveillance and Control Program is included in this ADS. Equipment includes sampler and monitor critical spares, well remediation drill rig, data archiving system, nuclear logging tool upgrades, and stack and effluent monitoring upgrades. The increase from FY 90 to FY 91 is the addition of purgewater storage and transport equipment.

FUNDING BASIS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9403-4A-0

Task	1990 Approp	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
Cribs,Ponds,Ditch	750	840	788	788	827	827	827	827	827
Effluent Mon	2975	3200	3124	3124	3280	3280	3280	3280	3280
Monitor Maint	233	203	245	245	260	300	400	400	400
Seismic Mon	390	427	450	450	470	470	470	470	470
Vadose Zone	380	645	675	675	1200	709	309	359	409
	4728	5315	5282	5282	6037	5586	5286	5336	5386

The funding basis is for no increase in scope for cribs, ponds, and ditches, effluent monitoring, monitor maintenance and seismic monitoring. Further expenses as described above are required to fully develop vadose zone monitoring capability.

PRIORITY RATIONALE:
Priority 1. These activities are necessary to prevent near-term adverse impacts to workers, the public, and the environment. Maintenance of cribs, ponds, and ditches, and the maintenance of environmental surveillance equipment are activities essential to safe Hanford Site operations. Vadose zone monitoring activities provide key information regarding potential migration of radioactive contamination offsite.

LEVEL OF CONFIDENCE RATIONALE:
High. Estimates for conducting these activities are based on actual costs and operating experience over the past several years. No major change in workscope is anticipated except the previously mentioned upgrades to gamma spectral logging instrumentation for improved vadose zone monitoring capability.

ACCOMPLISHMENTS TO DATE:
The Effluent Information System and Onsite Discharge Information System data was transmitted to INEL on schedule. The annual seismic report was prepared and issued as scheduled. The cribs, ponds, and ditches and effluent monitoring systems were operated and maintained in a safe and cost effective manner. The borehole calibration models were moved to Hanford from Spokane and made ready for installation. The Radionuclide Logging System truck was completed, received on site, and initial calibration begun.

ACTIVITY ALTERNATIVES:
Failure to operate and maintain the cribs, ponds, and ditches and the effluent monitoring systems would probably result in the shutdown of key site facilities and would thereby adversely impact ongoing plant production operations as well as site cleanup and restoration activities. The operation of the seismic monitoring network could be terminated; however the data derived from this network supports preparation of permitting documentation. The vadose zone monitoring work could be postponed, but this would result in an almost unrecoverable loss in

FY 92 ADS ID: 9403-4A-0

technical expertise, a delay in the development of state-of-the-art monitoring equipment, and a delay in acquiring essential information on groundwater contamination at the Hanford Site.

Prepared by: DA Turner for
BA AUSTIN

Approved by: R Gerton for
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9404-4A-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0002,0006
FACILITY: CONTINUITY OF OPERATIONS
TITLE: ENVIR SURV & CONTROL-SHUTDOWN/STANDBY OPERATIONS (W4A6)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	670	540	867	867	550	550	550	550	550
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	670	540	867	867	550	550	550	550	550

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/90	>COMPLETE 2727-S CLOSURE		
9/30/90	>PERFORM ANNUAL STRUCTURAL INSPECTION OF THE 242-T EVAPORATOR		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

Task - Shutdown and Standby Facilities (242-T and 242-S Evaporators)

This task provides routine surveillance of the "hot" side of the 242-S and 242-T Evaporators in accordance with established procedures and schedules. Ventilation systems and equipment to ensure radiological containment are maintained and planning, scheduling and radiation monitoring support for surveillance and maintenance of 242-S and 242-T Evaporators is provided. Other work includes responding to and

FY 92 ADS ID: 9404-4A-0

supporting audits, safety inspections, etc. of these facilities.

Task - 2727-S Non-Radioactive Dangerous Waste Storage (NRDWS) Facility Closure

This activity supports the completion of the closure plan for the 2727-S NRDWS Facility which was begun in FY 1989. The plan has been submitted to the State for approval and is currently in the review comment resolution stage. When completed, a period of public comment will follow. Once final approval of the plan and notice to proceed with closure is received from the State, the facility must be closed within 180 days.

FUNDING BASIS:

	1990	1991---------->			1992	1993	1994	1995	1996
Task	Approp	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
Evaporators	500	540	527	550	550	550	550	550	550
2727-S Closure	170		340	340					
	670	540	867	867	550	550	550	550	550

The funding basis includes reductions reflecting completion of the 2727-S closure in FY 1991 and escalation of continuing activity for the S and T - evaporators throughout the period.

PRIORITY RATIONALE:
Priority 1. The work related to the maintenance and surveillance of the 242-T and 242-S Evaporators is essential to prevent release of contamination to the environment and to protect personnel in and around the plant.

LEVEL OF CONFIDENCE RATIONALE:
Medium. The level of confidence in these budget projections for the surveillance and maintenance of the standby evaporators is high because they are based on actual costs and operating experience over the past several years. No major change in workscope is anticipated; however application has been made to place the 242-T Evaporator in the D&D program. This would reduce the costs of this activity and will be reflected in future activity data sheet updates as plans are finalized. The estimates for the closure of the 2727-S NRDWS Facility are less confident due to uncertainty in the amount of site characterization work required; identification of significant hazardous waste would increase costs. A proposal has been made to treat the entire facility as hazardous waste and therefore significantly reduce the sampling and characterization work required. Overall level of confidence for these activities is medium.

ACCOMPLISHMENTS TO DATE:
The 242-T and 242-S Evaporators have been maintained in a safe and cost

FY 92 ADS ID: 9404-4A-0

effective manner. The closure plan for 2727-S has been prepared and is in the comment resolution stage.

ACTIVITY ALTERNATIVES:
There is no safe alternative to maintaining and performing surveillance on the standby/shutdown evaporators until they are decommissioned and decontaminated. Maintenance is currently limited to activities essential to the safety of people and the environment. Failure to continue maintenance and surveillance activities could adversely affect the health and safety of plant staff and the public. The 2727-S NRDWS Facility could remain as is, however daily fines will be imposed for failure to complete closure 180 days after notice to proceed is received. The closure plan is already being processed for approval.

Prepared by: BA Austin for
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Approved by: RE Gerton for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9406-4A-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: TREATMENT
TITLE: EFFLUENT TREATMENT FACILITY OPERATIONS
PRIORITY: 1
B&R CODE: EW-30-10-25
A-106: N
REGULATORY DRIVERS: RCRA, DOE
CONFIDENCE LEVEL (H/M/L): L
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: NEW
NEPA: N/D
DOE PROGRAM: EM
CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)							FUNDING ISSUE	
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	0	1627	1627	2552	3552	3552	15952	19600
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	1627	1627	2552	3552	3552	15952	19600

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
1/31/91	>BEGIN OPERATIONS - 242-A/PUREX LERF		
9/30/91	>BEGIN OPERATIONS PURGE WATER SOLAR EVAPORATOR		
6/30/95	>BEGIN OPERATIONS - 200 AREAS TREATED EFFLUENT DISPOSAL SYSTEM		
6/30/95	>BEGIN OPERATIONS - 300 AREA TREATED EFFLUENT DISPOSAL SYSTEM		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This activity provides funding for the operation and maintenance of key liquid effluent storage/treatment projects at the Hanford Site.

242-A PUREX/ Liquid Effluent Retention Facility (LERF)

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9406-4A-0

The continuation of environmental restoration activities at Hanford depends on continued availability of space in double-shell tanks. The 242-A Evaporator reduces the volume of wastes stored in these tanks making more volume available for wastes. Operation of the 242-A Evaporator was suspended in April 1989 because of suspected "listed" waste in the process condensate waste previously discharged to the crib. Even with rationing of waste quantities by generators at Hanford, available double-shell tank space will be filled by January 1991. Emergency construction of the Liquid Effluent Retention Facility (LERF) followed by construction and operation of treatment facilities will ensure continued availability of storage space for liquids generated by continued operations. (See ADS 9097-WM-0 for construction costs.)

The LERF consists of a retention basin for temporary storage of 242-A Evaporator/Purex process condensates and a treatment facility. The retention basin will operate from December 1990 through December 1994. Cleanout of waste residue from the retention basin will be accomplished during FY 1995. The treatment facility will start operation in June 1992 and will operate into the post FY 1996 timeframe. The treatment facility will complete treatment of effluents stored in the retention basin by December 1994 and will then process currently generated 242-A Evaporator/Purex process condensates thereafter.

Purgewater
A similar "listed" waste leachate issue has led to the storage of purgewater from groundwater monitoring wells. Solar evaporation, using the newly constructed storage tanks, is the preferred treatment alternative. Waste minimization efforts have strictly limited the quantity of purgewater generated by well development and for sampling activities. (See ADS 9067-WM-0 for purgewater disposal.)

200/300 Areas Treated Effluent Disposal Facilities
The 1987 commitment to Congress to discontinue disposal of contaminated liquids to the soil column at the Hanford Site requires treatment of 33 liquid effluent streams. Engineering studies have been completed and FDC's and CDR's are in final stages to provide Best Available Treatment Economically Achievable (BATEA) in the 200 and 300 Areas for these streams. Operation of the 200 Area TEDF and the 300 Area TEDF will begin by June 1995. (See ADS 9401-4A-0 and 5408-EV-0 for construction costs.)

FUNDING BASIS:

Task	1990 Approp	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9406-4A-0

PW Solar Evap	327	327	252	252	252	252	
LERF	1300	1300	2300	3300	3300	6900	2000
200 TEDS						6000	12000
300 TEDS						2800	5600
Total	1627	1627	2552	3552	3552	15952	19600

Funding for this activity reflects the operational expense for new facilities to be completed during the budget period.

200 and 300 TEDS funding basis assumes six months operation during FY 1995 (3 months for startup activities and 3 months on-line operation). A full 12 months on-line operation during FY 1996 accounts for the doubling of operating expenses between these years.

Negotiations are in progress among DOE, WDOE, and EPA for an earlier startup for the 300 Area TEDS. If agreement for an earlier startup is negotiated, additional funding will be required for the operation of the facility prior to FY 1995.

The increase in LERF operating expense in FY 1995 is attributable to cleanout of waste residues from the facility's retention basins by June 1995 in accordance with the current operating plan. Use of the retention basins terminates at that time although operation of the Effluent Treatment Facility which begins operations in FY 1992 continues.

PRIORITY RATIONALE:
Priority 1. Restart of the 242-A Evaporator is essential for preservation of double-shell tank space for wastes routinely generated at the Hanford Site. The LERF for temporary retention of evaporator process condensate, followed by operation of the treatment facilities, is essential for disposal of 242-A Evaporator process condensate. Construction of new RCRA/CERCLA wells, repair of existing wells, and groundwater sampling result in generation of purgewater. RCRA/CERCLA groundwater monitoring programs are required for compliance with RCRA Part B permits, by DOE Orders, and for environmental restoration activities.
The 200 and 300 Areas Treated Effluent Disposal Facilities are the final step required for the environmentally sound disposal of treated liquid effluents and support the safe operation of facilities required for environmental restoration activities. These systems will facilitate ceasing discharge of contaminated liquid to the soil column and ceasing discharge of all liquids to previously contaminated sites in accordance with the Congressional commitment by DOE and specific milestones in the Tri-Party Agreement under milestone M-17-00.

LEVEL OF CONFIDENCE RATIONALE:
Low. The estimated operating expenses are for first-of-a-kind

FY 92 ADS ID: 9406-4A-0

facilities yet to be built. All are subject to continuing efforts to minimize liquid quantities handled, to develop release standards, and to ensure that project scope is both necessary and sufficient.. These activities are assigned a low level of confidence accordingly.

ACCOMPLISHMENTS TO DATE:
The 242-A/PUREX LERF project is on a fast track schedule with the ES and FDC complete and CDR in final stages.

"Temporary" purgewater storage facilities began operation on January 20, 1990 with completion of the first 1 million gallon ModuTank. An additional five ModuTanks will be constructed in the future. These tanks will be used as solar evaporators when air permits are obtained. Engineering studies compliant with BATEA guidance document are complete for the 200 and 300 Area Treated Effluent Disposal Facilities. FDC's and CDR's are in final stages of preparation for each facility.

ACTIVITY ALTERNATIVES:
The alternative to LERF facility operation is to terminate generation of double-shell tank liquids and consequently cessation of production and environmental cleanup activities at the Hanford Site. Present and planned environmental restoration activities could not proceed.
An inability to operate the 200/300 Area Treated Effluent Disposal Facilities would result in failure to comply with the congressionally mandated goal of discontinuing discharges of contaminated liquids to the soil column and associated TPA interim milestones (M-24).
An inability to operate RCRA/CERCLA purgewater storage and treatment facilities would necessitate termination of these groundwater monitoring programs. For RCRA sites, this would lead to loss of Part B interim status permits for key waste management facilities. Environmental restoration activities conducted under CERCLA depending on groundwater monitoring would terminate.

Prepared by: D A Turner for
BA AUSTIN

Approved by: W Matthews for
RE GERTON 5-9-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9445-4L-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0096
FACILITY: HANFORD ENVIRONMENTAL LABORATORIES
TITLE: ENVIRONMENTAL HOT CELL EXPANSION (W4L41)
PRIORITY: 2 NEPA: EA
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: HEC-W-041 TPA MS: M-11
REGULATORY DRIVERS: RCRA, CERCLA, ORD, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	146	165	178	178	189	189	125		
CAPITAL EQ					0				
GP PROJECTS									
LINE ITEMS		2400	2400	2400	10000	1400			
TOTAL	146	2565	2578	2578	10189	1589	125	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/92	>COMPLETE DEFINITIVE DESIGN		M-11-02
6/30/94	>COMPLETE CONSTRUCTION		M-11-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This FY 1991 HEC Line Item (89-D-172) Sub-project provides for additional hot cell space at the 222-S Laboratory. An assessment report summarizing the capabilities of each laboratory at Hanford was issued in April 1988 and is updated annually. This report shows that capabilities to perform the chemical analyses required by the RCRA/CERCLA EPA Contract Laboratory Program (CLP) Protocols do not currently exist on the Hanford

FY 92 ADS ID: 9445-4L-0

site. Specifically, existing hot cell space is inadequate to support new programmatic requirements such as:

1) Characterization, treatment process selection, remediation, and monitoring of 149 Single Shell Tanks (SST).
2) Characterization, treatment process selection, remediation, and monitoring of the over 1,400 inactive sites.
3) An increase in process sample support to Grout for feed formulation, physical property studies, and characterization of Grout product (6 campaigns annually).
4) Support to B Plant pretreatment operations to perform 25 hot cell samples per week.

This ADS addresses only the design and construction of the Hot Cell Expansion. Staffup, training, analytical methods development, acquisition of capital equipment not related to construction (CENRTC), and other related activities are covered under ADS No. 9446-4L-0.

FUNDING BASIS:
Funding is based on historical costs and trends and on the completed CDR.

PRIORITY RATIONALE:
All activity resulting from agreements between the DOE and local, state, and federal agencies has been determined to be Priority 2.

LEVEL OF CONFIDENCE RATIONALE:
The HIGH level of confidence was determined for this subproject based on its validation as a HEC Line Item Subproject. It is assumed that no regulatory changes will occur that will significantly add to the cost estimates.

ACCOMPLISHMENTS TO DATE:
- o Conceptual Design Report completed
- o Validated as a FY1991 HEC Line Item Subproject (89-D-172)
- o Advanced Conceptual Design Report has begun (ECD: March 1990)

ACTIVITY ALTERNATIVES:
Defer or delay this activity. This would result in non-compliance with the Tri-Party Agreement and with RCRA requirements (particularly Single Shell Tank (SST) Characterization and B-Plant Pretreatment Operations).

Cancel this activity. Operating to current laboratory hot cell capacity limits would cause schedule delays to the programs identified above. Shipping samples off-site to other EPA/RCRA/CERCLA qualified contract laboratories is not feasible from a cost standpoint. It is also highly questionable that hot cells outside Hanford are even available for this work. Furthermore, on-site facilities would still be needed to prepare

FY 92 ADS ID: 9445-4L-0

the radioactive samples for shipment to and from the vendor and shipping methodology would have to be developed and approved as well.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	91L-GFW-041	HEC/ENV HOT CELL EXP (89-D-172)	13800	91166

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9446-4L-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0097
FACILITY: HANFORD ENVIRONMENTAL LABORATORIES
TITLE: ENVIRONMENTAL LABORATORY UPGRADES (W4L)
PRIORITY: 2 NEPA: EA
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-14
REGULATORY DRIVERS: RCRA, CERCLA, SDWA, DOE, ORD
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	2798	6126	8571	6411	8425	2613	744	395	
CAPITAL EQ	506	4164	4414	3853	5220	1381			
GP PROJECTS	600	3898	4050	2950	5200	3400	1200	1200	
LINE ITEMS						3000	5000	6000	
TOTAL	3904	14188	17035	13214	18845	10394	6944	7595	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
3/31/90	>COMPLETE INTERIM STATUS CORRECTIVE ACTIONS FOR 222-S STORAGE PAD		M-23-07
12/31/91	>SUBMIT 222-S LABORATORY PART B PERMIT TO ECOLOGY AND EPA		M-20-22
1/31/92	>HEC SUB-PROJECT OPERATIONAL: (89-D-172) WASTE SAMPLING AND CHARACTERIZATION FACILITY		M-14-00
6/30/94	>HEC SUB-PROJECT OPERATIONAL: ENVIRONMENTAL HOT CELL EXPANSION (89-D-172)		M-11-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9446-4L-0

FY 1991 Bush Budget Guidance.

This ADS provides for all Waste Management support to laboratory upgrades except for the design and construction of the HEC Line Item sub-projects (covered in ADS's No. 9445-4L-0 and 9447-4L-0). It partially covers all the activities required to make the newly constructed facilities operational and to qualify the Hanford Environmental Laboratories to perform RCRA/CERCLA Contract Laboratory Program (CLP) protocol analyses (reference ADS 5250-EK-0 for Environmental Restoration Program support to these activities). Specific activities include: staffup, training, analytical methods development, acquisition of capital equipment not related to construction (CENRTC), all non-HEC projects, and any other activities required to meet the capability and capacity demands of RCRA/CERCLA CLP protocols.

An assessment report summarizing the capabilities and capacities of each laboratory at Hanford was issued in April 1988 and has been updated annually. This report shows that capabilities to perform the chemical analyses required by the pertinent environmental regulations do not currently exist on the Hanford site. Specifically, existing laboratory space is inadequate to support new analytical requirements such as:

1) Characterization, treatment process selection, remediation, and monitoring of 149 Single Shell Tanks (SST) and over 1,400 inactive sites.
2) An increase in process sample support to Grout for feed formulation, physical property studies, and characterization of Grout product (6 campaigns annually).
3) Support to B-Plant pretreatment operations to perform 25 hot cell samples per week.
4) Compliance with the Safe Drinking Water Act (SDWA).
5) Compliance with the 5400 series of DOE Orders.
6) Performance of analyses, including mixed wastes, to RCRA/CERCLA/Contract Lab Program protocols.
7) Support to the Treated Effluent Disposal (TED) Facilities, which is part of the plan to eliminate releases to the soil column.

CENRTC items covered in this ADS include:

1) Analytical equipment for performing organic, inorganic and radiochemistry analyses.
2) Sample trucks for obtaining field samples from the over 1400 inactive sites.
3) Spare manipulators and equipment for use in the hot cell.

The impact of not receiving operating and CENRTC required funding for FY 1991 is a deferral of capacity upgrades. This will place at risk the Tri-Party Agreement milestones for SST, Inactive Site Characterization, and Treated Effluent Discharge (TED) activities. The shortfall must be

carried over to FY 1992 as capacity will be a key issue for analytical support of the Hanford Mission.

FUNDING BASIS:
Funding estimates are based on the Hanford Environmental Laboratories Upgrade Plan, SD-CP-PAP-001, on sample load projections, and on historical costs and trends.

The delta between the operating target and required funding for 1991 represents the following:

- Additional Engineering Studies, Functional Design Criteria, and conceptual Design Reports for outyear GPP's. These GPP's are required to support the WSCF and 222-S Laboratory operations.
- The strategy to use mock-up facilities to facilitate training and the checkout of analytical equipment prior to final installation in the Low Level Laboratory (WSCF). This strategy is mandated by the exceedingly short time between completion of construction (September 1991) and the Tri-Party Agreement date for start of operations (January 1992).
- Additional Capacity Upgrades to the 222-S and 325 Laboratories based on latest sample load projections which are far greater than originally projected. These upgrades primarily address staffing and equipment issues and ways to increase the capacity of the respective labs.

The decrease in FY 1992 Funding from the 1991 required level reflects the completion of capability upgrades. Capacity upgrades will continue through FY 1995.

PRIORITY RATIONALE:
All activity resulting from agreements between the DOE and local, state and federal agencies has been determined to be Priority 2.

LEVEL OF CONFIDENCE RATIONALE:
The MEDIUM level of confidence for this ADS is based on the uncertain nature of sample load projections which have been generated using best available information. The uncertainty is primarily in the area of capacity issues, not capability issues. It is assumed that no regulatory changes will occur that will significantly add to the cost estimates.

ACCOMPLISHMENTS TO DATE:
- Waste Sampling and Characterization Facility (WSCF) start-up plans have been drafted.

FY 92 ADS ID: 9446-4L-0

- o Laboratory Assessment Document has been updated.
- o Engineering studies, Functional Design Criteria, and Conceptual Design Reports have been completed for 5 GPP's and are underway for several out-year projects.
- o Thirteen schedules are in place for Laboratory Upgrades and are statused monthly.
- o Staffing plans are in place and staffup has commenced.
- o Mockup facilities have been arranged to provide for training of personnel and checkout of equipment prior to final installation in the Laboratories.
- o The Methods Manual has been developed and is being updated periodically.

ACTIVITY ALTERNATIVES:
Defer or delay this activity. This would result in non-compliance with the Tri-Party Agreement and with other State and Federal regulations and requirements (particularly Single Shell Tanks (SST) characterization and B-Plant pretreatment operations).

Cancel this Activity. Significant schedule delays would result if samples had to be shipped to other EPA/RCRA/CERCLA qualified contract laboratories. This method of operation is not feasible for the long term as additional operating costs would be incurred that would continue in future years. Samples shipped off site have historically resulted in problems with chain-of-custody, transportation, inappropriate analyses, and turnaround time requirements. In fact, it is questionable whether sufficient capacity exists in offsite labs to handle radioactive samples to the extent needed. These problems could result in penalties being assessed for non-compliance.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
		GPP/CWO RESERVE		91199
	91G-GFW-080	SAMPLE ARCHIVING FAC (COLD)(91-D-171)	1200	91160
	91G-GFW-082	ENV DATA REMED TRACKG SYS FAC(91-D-171)	1200	91161
	91G-GFW-093	HEHF REFEREE LABORATORY UPG	1100	91198
	91G-GFW-099	MOBILE LABORATORY STORAGE FACILITY	700	90018
	91G-GFW-109	WSCF UTILITY BUILDING	450	90017
	92G-GFW-124	222-S LAB WASTE WATER RETENTION FACIL	600	92094
	92G-GFW-XXX	222-S HAZ WASTE HANDLING FAC	800	90013
	92G-GFW-XXX	SAMPLE EQPT DECON FACILITY	900	90014
	92G-GFW-XXX	SAMPLE TRUCK/EQPT GARAGE	800	90015
	92G-GFW-XXX	ENVIRONMENTAL SERVICES MGT CENTER	1000	90016
	93G-GFW-XXX	PHYSICAL CHARACTERIZATION LAB	750	90009
	93G-GFW-XXX	222-S EQPT STORAGE FACILITY	900	90010

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FY 92 ADS ID: 9446-4L-0

93G-GFW-XXX	ENVIRONMENTAL PILOT PLANT	900	90011
93G-GFW-XXX	222-S SAMPLE RECEIVING CENTER	850	90012
LINE ITEMS			
93L-GFW-087	222-S RADIOACTVE LIQ WASTE LNS(93-D-173)	14000	92052

Prepared by: DA Turner for
BA AUSTIN

Approved by: RE Gerton
RE GERTON

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9447-4L-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0099
FACILITY: HANFORD ENVIRONMENTAL LABORATORIES
TITLE: (W4L43) WASTE SAMPLING AND CHARACTERIZATION FACILITY 89-D-172
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-35 DOE PROGRAM: EM CATEGORY: WM
A-106: HEC-W-011 TPA MS: M-14
REGULATORY DRIVERS: RCRA, CERCLA, ORD, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): Y
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	448	165	178	178	100				
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	6206	10300	10300	10300					
TOTAL	6654	10465	10478	10478	100	0	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>COMPLETE DEFINITIVE DESIGN		M-14-01
1/31/92	>COMPLETE CONSTRUCTION		M-14-00

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Due to insufficient funding at the FY 1991 Bush Budget Guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This FY 1991 HEC Line Item (89-D-172) Sub-project provides for additional laboratory space required to meet the capability and capacity demands of the Tri-Party Agreement. An assessment report summarizing the capabilities of each laboratory at Hanford was issued in April 1988 and is updated annually. This report shows that capabilities to perform the chemical analyses required by the pertinent environmental regulations

do not currently exist on the Hanford site. Specifically, existing laboratory space is inadequate to support new analytical requirements such as:

1) Compliance with the Safe Drinking Water Act (SDWA).
2) Compliance with the 5400 series of DOE Orders.
3) Characterization, treatment process selection, remediation, and monitoring of the over 1,400 inactive sites.
4) Performance of analyses, including mixed wastes, to RCRA/CERCLA Contract Laboratory Program CLP protocols.
5) Support to the Treated Effluent Disposal (TED) Facilities, which is part of the plan to eliminate releases to the soil column.

The decrease in funding from FY 1991 required to the FY 1992 required reflects the start of operations in the second quarter of FY 1992. Operational funding is picked up in ADS No 9645-6L-0 beginning in FY 1992.

This ADS addresses only the design and construction of the Low-Level Laboratory. Staff-up, training, analytical methods development, acquisition of capital equipment not related to construction (CENRTC), and other related activities are covered under ADS No. 9446-4L-0.

FUNDING BASIS:
Funding is based on historical costs and trends and on the completed CDR.

PRIORITY RATIONALE:
All activity resulting from agreements between the DOE and local, state and federal agencies has been determined to be Priority 2.

LEVEL OF CONFIDENCE RATIONALE:
The HIGH level of confidence was determined for this sub-project based on its validation as a HEC Line Item Subproject. It is assumed that no regulatory changes will occur that will significantly add to the cost estimates.

ACCOMPLISHMENTS TO DATE:
- o Conceptual Design Report completed
- o Validated as a FY 1990 HEC Line Item Sub-project (89-D-172)
- o Advanced Conceptual Design Report completed
- o Definitive Design has begun (ECD: Sept 1990)

ACTIVITY ALTERNATIVES:
Defer or delay this activity. This would result in non-compliance with the Tri-Party Agreement (particularly TED Facilities and inactive site characterization) and with RCRA, CERCLA and SDWA requirements.

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FY 92 ADS ID: 9447-4L-0

Cancel this activity. In this case samples would have to be shipped off-site to other EPA/RCRA/CERCLA qualified contract laboratories. This method of operation would result in additional operating costs that would continue in future years. Also, samples shipped off site have historically resulted in problems with chain-of-custody, transportation, inappropriate analyses, and turnaround time requirements. These problems could result in penalties being assessed for non-compliance.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	90L-GFW-011	WASTE SAMP & CHAR FAC (89-D-172)	16600	91169

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9491-4X-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0008,0156
FACILITY: CONTINUITY OF OPERATIONS
TITLE: WASTE OPERATIONS ASSESSMENTS (W4X)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): M HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE *	
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	7208	6912	9337	6491	9370	9370	9380	9080	9080
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	7208	6912	9337	6491	9370	9370	9380	9080	9080

9212552212

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS

>

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Assessments are charges from other programs for services rendered that benefit the Defense Waste Management Division (DWMD). The workscope for which the DWMD is being assessed includes development of a standard Job Control System for work performed at the Hanford Site and usage of the CRAY/Large Scale Scientific System computer.

Provisions are also included here for an increased DWMD share of the Hanford Site minimum base operating costs due to placing N Reactor in cold standby (i.e. site impact). The increased costs are generally billed at mid-year and year-end. Contingency reserves are also provided for any other overhead rate adjustments that occur during the year.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9491-4X-0

The Hanford Environmental Management Program assessment is currently included in this program; however, the FY 1990 Appropriation and FY 1991-1996 funding request is shown on separate MH ADS's because it is proposed that the MH program be direct-funded for the workscope.

The Environmental Monitoring (MJ) program assessment for groundwater wells is included in FY 1990. Commencing in FY 1991, this workscope will be direct-funded in the MJ program (see the MJ ADS's for required funding).

Narrative is based on FY 1990 and FY 1991 Budget guidance funding.

The increase in funding from FY 1990 to FY 1991 Required is due to (1) additional contingency for site impacts and unplanned activities and (2) FY 1990 workscope being performed with carryover funding not shown in the 1990 Appropriation.

The FY 1991 Target is comprised of workscope from two FY 1991 Five-Year Plan ADS's: (1) Job Control System RL-0008 and (2) Site Impact RL-0156. The funding increase in FY 1991 from Target to Required is due to the addition of contingency for unplanned activities. Due to changing regulatory requirements, the quantity of unknowns is rapidly increasing. Funding for unplanned activities will help mitigate the impacts to work already planned and funded. There is no funding change from FY 1991 Required to FY 1992 Required.

FUNDING BASIS: The funding projections are based on historical costs. Expert judgement has also been applied to the contingency for site impact and unplanned work.

Workscope/FY	1990	1991	1992	1993	1994	1995	1996
Job Control	246	257	271	285	300	0	0
GW Wells	6353	0	0	0	0	0	0
Site Impact	549	7000	7000	7000	7000	7000	7000
CRAY	60	80	99	85	80	80	8
Unplanned	0	2000	2000	2000	2000	2000	2000
TOTAL	7208	9337	9370	9370	9380	9080	9080

PRIORITY RATIONALE: Priority 1 was chosen because this workscope is ongoing and would result in significant program and resource impacts if terminated. A certain amount of ongoing waste management activities are required to maintain safe conditions at the Hanford Site waste facilities. In order to have access to these facilities, certain services such as security, transportation, utilities, etc, must be provided as the minimum base costs to operate the Hanford Site. The costs for these services are prorated to the various programs operating

FY 92 ADS ID: 9491-4X-0

on the site. With fewer operating facilities, the prorated costs to each program increases. Rather than budget for these fluctuating Priority 1 costs in each separate DWMD program (i.e., Tank Farms, B Plant, Solid Waste), fixed overhead rates are established for the programs and a separate ADS (9491-4X) is used to provide contingency funding for increases to these overhead rates. The same concept also applies to contingency funding for unplanned activities required to maintain compliance with new or changing regulations.

LEVEL OF CONFIDENCE RATIONALE: A medium level of confidence was chosen due to uncertainty of FFTF and PUREX status which could adversely affect the Hanford Site base operating costs shared by DWMD (i.e. site impact).

ACCOMPLISHMENTS TO DATE: All milestones and accomplishments are described in the applicable performing program ADS's.

ACTIVITY ALTERNATIVES: The MH and MJ workscope could be assessed to the user programs (i.e., W4X for DWMD) as it is in FY 1990 instead of direct-funded by the performing program as proposed. Contingency funding for site impacts and unplanned activities could be included within each separate DWMD program on numerous ADSs instead of providing a singular ADS for the entire division.

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9500-5C-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0034
FACILITY: STORAGE- WESF
TITLE: CESIUM CAPSULE RECOVERY (1W5C)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-30 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)					FUNDING ISSUE		
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	6304	4500	5200	0	5200	6375			
CAPITAL EQ					250				
GP PROJECTS									
LINE ITEMS									
TOTAL	6304	4500	5200	0	5450	6375	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
6/01/90	>COMPLETE THE RETURN OF COMMERCIALLY LEASED CESIUM CAPSULES TO WESF FROM RSI FACILITIES	RL90.009	
9/30/92	>COMPLETE THE RETURN OF COMMERCIALLY LEASED CESIUM CAPSULES TO WESF FROM ALL REMAINING FACILITIES		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Milestones and narratives are based on guidance level funding for FY 1990 and FY 1991.

This ADS includes cesium capsule recovery effort from RSI, ARECO and IOTECH facilities. Due to public sensitivity and the potential of a large scale release of radioactivity, it is imperative that this activity be funded in FY 1991. Currently no budget has been identified to support this required activity in FY 1991. It is assumed that by FY 1992 all

FY 92 ADS ID: 9500-5C-0

capsules will be returned from offsite facilities. FY 1990 required funding level includes $387K operating funding needed to support gamma scanning of cesium capsules. Capital equipment funding is required to purchase a cask to replace leased casks.

Activities on this effort were initiated in June 1988. Return of cesium capsules needs to be completed as soon as possible. Deferral or delay to this activity is not feasible due to the extreme consequences associated with a large-scale release of radioactivity from a failed cesium chloride capsule.

FUNDING BASIS:
The increase between FY 1991 Target and Required funding is due to an increase in gamma scanning and the recovery of capsules from Rocketdyne at Canoga Park. The increase between FY 1991 and FY 1992 Required funding is due to a change in assumptions, at the request of the customer, that all capsules will be recovered by the end of FY 1992 and will not require surveillance past that year. Also included is $250K for the purchase of a shipping cask.

The funding estimates are based on integrated, resource loaded schedules for FY 1990-1996. Cesium capsule recovery funding was not included in the FY 1991 budget submittal. The FY 1990 Requirement includes $684K carried over from FY 1989. The total B/O in FY 1990 is $6,304K.

PRIORITY RATIONALE:
Ongoing activity which could not be terminated in order to maximize public safety and minimize perception of risk.

LEVEL OF CONFIDENCE RATIONALE:
High. Based on actual plant cost information.

ACCOMPLISHMENTS TO DATE:
- o Fabrication of 20 cask liners is progressing.
- o A total of 196 capsules out of 431 have been shipped from Radiation Sterilizers Incorporated to WESF.

ACTIVITY ALTERNATIVES:
Delay or extend retrieval effort and continue offsite surveillance.

Prepared by: ML GRYGIEL

Approved by: RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9550-5E-0

OPERATIONS OFFICE: RL
INSTALLATION.....: HANFORD
FACILITY: STORAGE- WESF
TITLE: WESF (1W5E)
PRIORITY: 1
B&R CODE: EW-30-10-30
A-106: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H
DOE CONTACT: GERTON, RE

LAST UPDATE: 4/26/90
FY 91 ADS ID: RL-0041
NEPA: N/A
DOE PROGRAM: EM CATEGORY: WM
TPA MS: N
HEC SUBPROJECT (Y/N): N
PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	2735	3546	3885	3392	4872	4718	4718	4718	4718
CAPITAL EQ					100	100	100	100	100
GP PROJECTS									
LINE ITEMS									
TOTAL	2735	3546	3885	3392	4972	4818	4818	4818	4818

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>MAINTAIN WESF IN A STANDBY CONDITION AND CONTINUE REQUIRED SURVEILLANCE OF CESIUM AND STRONTIUM CAPSULES (ANNUAL)		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
Milestones and narratives are based on budget guidance for FY 1990 and FY 1991.

Waste Encapsulation and Storage Facility (WESF) for maintaining facility standby and surveillance required for safe storage, receipt and shipment of cesium and strontium capsules. Ongoing activity for 15 years and will continue until the cesium and strontium capsules have been removed for final disposal. Supports surveillance and maintenance of WESF until disposition of the cesium and strontium capsules.

FUNDING BASIS:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9550-5E-0

Waste operations FY 1991 budget submittal, revision 1 and integrated, resource loaded schedules for FY 1990-1996. Fifteen years of actual cost data.

Funding requirement increased from FY 1990 to FY 1991 due to maintenance backlog on safety class systems and increased pool cell activity within the facility due to return of capsules from offsite irradiators.

The increase in funding from FY 1991 Target to Requirements is due to increased maintenance requirements and Operational surveillance. The increase from FY 1991 to FY 1992 Requirements is due to increased operational requirements as a result of increased capsule storage and capital equipment funding for an ion exchange column, cooling water equipment, and spare manipulators. Increased operational activity results from a customer request to return all capsules to WESF in FY 1992. Surveillance and storage of capsules at WESF will create a continuing need for maintenance and surveillance personnel, as well as equipment for as long as capsules are stored at WESF.

PRIORITY RATIONALE:
The WESF facility is an ongoing, operating facility. In compliance with the DOE Five-Year Plan and applicable DOE Orders, WESF performs ongoing activities which, if terminated, would result in significant program impacts to the Cesium Capsule Recovery Effort.

LEVEL OF CONFIDENCE RATIONALE:
High. Based on actual operating costs.

ACCOMPLISHMENTS TO DATE:
Major accomplishment to date was the A Cell window repair.

ACTIVITY ALTERNATIVES:
Accelerate disposal of strontium and cesium capsules and shutdown the WESF facility.

Prepared by: _____ 5/1/90
ML GRYGIEL

Approved by: _____
RE GERTON 5-4-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9600-6G-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0078
FACILITY: CONTINUITY OF OPERATIONS
TITLE: PLANNING (W6G)
PRIORITY: 3 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)				FUNDING ISSUE				
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	1990	3885			2385	2285	2285	2285	2285
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	1990	3885	0	0	2385	2285	2285	2285	2285

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/89	>1989 HANFORD SITE WASTE MANAGEMENT PLAN TO DOE-HQ (ANNUAL EXCEPT FY 1991)	RLM90.02	
3/31/90	>RL SUPPLEMENT TO DOE ORDER 5820.2A	WGR90.03	
4/03/90	>UPDATED INVENTORY FOR NATIONAL INTEGRATED DATABASE (ANNUAL EXCEPT FY 1991)	WGR90.02	
4/30/90	>HANFORD SITE WM AND ER INTEGRATION PLAN (ANNUAL EXCEPT FY 1991)	WGR90.01	
7/31/90	>HANFORD WASTE MANAGEMENT TECHNOLOGY PLAN (ANNUAL EXCEPT FY 1991)	WGR90.04	
8/31/90	>HDW-EIS ROD IMPLEMENTATION STATUS REPORT (ANNUAL EXCEPT FY 1991)	WGR90.05	
9/30/90	>1990 WASTE VOLUME PROJECTIONS DOCUMENT (ANNUAL EXCEPT FY 1991)	WGR90.06	

== NARRATIVE ==

ACTIVITY DESCRIPTION:

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9600-6G-0

Per DOE-HQ direction, FY 1991 funding requests for Priority 3 and 4 ADSs that are not required to meet Compliance Agreements or environmental/safety regulations have been deleted and added to FY 1992 and outyear budgets.

Integrate waste management strategy and prepare and update top-level planning documents and databases needed for implementation of waste disposal and inactive site cleanup at Hanford. Major tasks are:

1. Updates of the Hanford Site Waste Management Plan in compliance with DOE Order 5820.2A.
2. Updates of the Hanford Waste Management Technology Plan.
3. Waste volume projections for the double-shell tanks.
4. Waste inventory updates for the National Integrated Data Base.
5. Waste Management input to the Hanford Site Specific Plan.
6. Tracking implementation of the record of decision resulting from the 12/87 Final Environmental Impact Statement on "Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes".
7. Updates of the Hanford Site Waste Management and Environmental Restoration Integration Plan.
8. Preparation and maintenance of major project documentation for the Hanford Environmental Compliance (HEC) Project as mandated by DOE Order 4700.1.

Narrative and milestones are based on FY 1990 and FY 1991 Budget guidance funding. This work is ongoing and continuous in nature and a loss of funding in FY 1991 will result in the diversion of trained and dedicated personnel to other tasks. The impact of deferring FY 1991 workscope is a disruption in (1) the annual issuance of several major planning documents (2) the maintenance of waste volume and waste inventory databases for the Hanford Site (3) support to planning and integration of capital projects and (4) support to special requests for planning data and information.

FUNDING BASIS: Based on actual costs over the past several years. Activity will continue until completion of Hanford Site cleanup.

Subtask/FY	1990	1991	1992	1993	1994	1995	1996
Integration	620	0	750	750	750	750	750
WVP	430	0	500	500	500	500	500
IDB	175	0	200	200	200	200	200
Planning	575	0	735	735	735	735	735
HEC	100	0	200	100	100	100	100
TOTAL	1900	0	2385	2285	2285	2285	2285

The decrease in funding from FY 1990 to FY 1991 Required is due to

FY 92 ADS ID: 9600-6G-0

deferring all strategic planning and program integration workscope for one year. The funding decrease in FY 1991 from Target to Required is also due to the deferral of strategic planning by one year and the deletion of the proposal to prepare NEPA documentation for low-level and radioactive mixed waste sites. The increase in funding from FY 1991 Required to FY 1992 Required is for restarting the strategic planning workscope.

PRIORITY RATIONALE: Priority 3 was selected because these activities are required for compliance with DOE orders. Top-level planning also ensures that strategic and long-range plans are prepared to meet various regulatory requirements and waste activities are managed safely and efficiently.

LEVEL OF CONFIDENCE RATIONALE: Level of confidence of funding requirements is high because estimates are based on actual costs and operating experience over the past several years. No major change in planning requirements is foreseen.

ACCOMPLISHMENTS TO DATE:
1. Transmitted 1988 Hanford Site Waste Management Plan to DOE-HQ.
2. Submitted Implementation Plan for Hanford Site Compliance with DOE Order 5820.2A to DOE-HQ.
3. Issued 1988 Hanford Waste Management Technology Plan.
4. Developed a tracking system and issued a status of HDW-EIS ROD Implementation.
5. Issued Updated Inventory for National Integrated Data Base.
6. Transmitted Project Plan and Project Management Plan to DOE-HQ for the HEC Project.

ACTIVITY ALTERNATIVES: Alternatives are:
1. Issue semi-annual updates to the planning documents.
2. Issue biennial updates to the planning documents.
3. Eliminate further update to the National Integrated Data Base and double-shell tank waste volume projections.

Prepared by: BA AUSTIN

Approved by: for RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9601-6G-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: TREATMENT
TITLE: WASTE TREATABILITY (W6G)
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-04
REGULATORY DRIVERS: ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	101	0	1550	0	1550	1650	1650	1550	1550
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	101	0	1550	0	1550	1650	1650	1550	1550

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/89	>LETTER TO ECOLOGY DESCRIBING 1990 WASTE TREATABILITY STUDY		M-04-01
9/30/90	>SUBMIT 1990 TANK WASTE TREATABILITY STUDY REPORT		M-04-00
9/30/92	>*SUBMIT TANK WASTE TREATABILITY STUDY REPORTS (ANNUAL)		M-04

== NARRATIVE ==

ACTIVITY DESCRIPTION: * Due to insufficient funding at the FY 1991 Bush Budget guidance, this and all TPA milestones are subject to renegotiation.

Prepare tank waste treatability studies and submit annual reports as prescribed by the Tri-Party Agreement.

Wastes stored in double-shell and single-shell tanks, as well as newly generated wastes destined to be stored in the double-shell tanks, will

be studied to determine the most appropriate treatment and/or disposal method. Studies to determine the long-term feasibility of grout or glass for disposal of these wastes are also included.

Narrative and milestones are based on FY 1990 and FY 1991 Budget guidance funding.

FUNDING BASIS: Funding is based on a feasibility study cost estimate and assumes that most of the treatment, storage and disposal facility studies will be excerpted from their respective Part B Permit applications.

The increase in funding from FY 1990 to FY 1991 Required reflects a ramp up in waste treatability activities. In the current year, only reporting of existing studies is included. Beginning in FY 1991, initiation of new waste treatability studies is required. However, if FY 1991 Budget guidance is received, all waste treatability activities will be deferred one year. The funding increase in FY 1991 from Target to Required is due to this new workscope commitment from the TPA (M-04) that was not identified in the FY 1991 Five-Year Plan. There is no funding change from FY 1991 Required to FY 1992 Required.

Subtask/FY	1990	1991	1992	1993	1994	1995	1996
DST's	0	500	500	500	400	200	100
SST's	0	0	100	200	300	500	600
Newly Generated	0	200	200	200	200	100	100
Glass	0	300	300	300	300	300	300
Grout	0	400	300	300	300	300	300
Reporting	101	150	150	150	150	150	150
TOTAL	101	1550	1550	1650	1650	1550	1550

PRIORITY RATIONALE: Priority 2 was chosen because this workscope directly supports a TPA milestone.

LEVEL OF CONFIDENCE RATIONALE: The level of confidence is low because this is a new activity and the scope of work has not been fully negotiated with the Department of Energy and the Washington Department of Ecology.

ACCOMPLISHMENTS TO DATE: This is new workscope started in FY 1990.

ACTIVITY ALTERNATIVES: (1) Cancel this activity completely except for newly generated waste and changes in approach for treatment and disposal of existing DST and SST waste. (2) Provide biennial reporting of treatability studies instead of reporting annually.

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FY 92 ADS ID: 9601-6G-0

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9603-6G-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: NEW
FACILITY: TREATMENT
TITLE: MIXED WASTE LAND DISPOSAL RESTRICTIONS
PRIORITY: 2 NEPA: N/D
B&R CODE: EW-30-10-25 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: M-26
REGULATORY DRIVERS: RCRA, ORD
CONFIDENCE LEVEL (H/M/L): L HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	0	0	200	0	3125	3125	3125	2125	2125
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	0	0	200	0	3125	3125	3125	2125	2125

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
12/31/91	>*SUBMIT "HANFORD LDR STRATEGY PLAN FOR MIXED WASTES"		M-26-00
12/31/91	>*ESTABLISH INTERIM MILESTONES FOR LDR COMPLIANCE		M-26-02
9/30/92	>*SUBMIT HANFORD LDR REPORT (ANNUAL)		M-26-01

== NARRATIVE ==

ACTIVITY DESCRIPTION:
* Due to insufficient funding at the FY 1991 Bush Budget guidance, this and all TPA milestones are subject to renegotiation.

The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

In 1984, Congress amended RCRA, imposing among other things, additional restrictions on hazardous waste storage and disposal activities. These

restrictions have been referred to as the Land Disposal Restrictions (LDR). Some of the mixed wastes which are stored at Hanford are subject to LDR and cannot be land disposed until the wastes are treated in accordance with LDR regulations. These wastes are stored in underground tanks or in other mixed waste units.

At present, the U.S. Department of Energy (DOE) does not have the capability to treat all of the LDR mixed wastes at Hanford in accordance with LDR, and until such treatment occurs, disposal is prohibited. The mixed waste treatment systems which are currently available and treatment systems which are planned for the future must satisfy prescribed LDR treatment requirements. Until treatment systems capable of treating the mixed waste to meet the LDR treatment standards become available for Hanford wastes, storage of existing wastes and wastes which will be generated will continue. However, such storage will be in accordance with an approved plan for the management of LDR mixed waste.

In addition to restrictions on land disposal, these LDR requirements also include limitations on how long LDR wastes can be stored. The DOE will submit schedules to develop and construct waste treatment systems necessary to achieve compliance with LDR storage requirements, which shall become effective upon approval by the U.S. Environmental Protection Agency (EPA) [or Washington State Department of Ecology (Ecology) upon authorization for LDR pursuant to Section 3006 of RCRA].

Task 1: Submit "Hanford Land Disposal Restrictions Strategy Plan for Mixed Wastes" (LDR Plan)

A plan to develop and implement treatment technologies necessary to achieve full compliance with LDR requirements for mixed wastes at the Hanford Site will be completed and submitted by DOE to EPA/Ecology for approval. The LDR Plan will include:

- o Waste Characterization Plan
- o Storage Report
- o Treatment Report
- o Treatment Plan
- o Waste Minimization Plan
- o A schedule, depicting the events necessary to achieve full compliance with LDR requirements.
- o A process for establishing interim milestones

Task 2: Submit an Annual Hanford Land Disposal Restrictions Report

An annual Hanford Land Disposal Restrictions Report will be submitted by DOE to EPA/Ecology. The report will include a description of activities developed in accordance with the LDR Plan and prior annual

reports necessary to achieve full compliance with LDR requirements. The reports shall update all information contained in the LDR Plan and the prior annual report, including plans and schedules.

Task 3: Establish Interim Milestones for LDR Compliance

DOE will establish interim milestones for LDR compliance with EPA/Ecology on an annual basis. Schedules for achieving compliance with LDR requirements for each mixed waste type shall be developed in accordance with the LDR Plan and the annual reports.

Task 4: Develop and Implement Mixed Waste Treatment Technologies

In compliance with LDR Plan schedules, treatment technologies necessary to achieve full compliance with LDR requirements for mixed wastes at the Hanford Site will be developed and implemented. The scope of this activity will be defined by completion of the tasks outlined above. However, a need to implement currently available treatment methods for selected categories of mixed wastes is apparent at this time. Implementation of mixed waste treatment will be initiated following EPA/Ecology concurrence.

FUNDING BASIS: Funding requirements are based on a preliminary rough order-of-magnitude estimate. A refined cost estimate will be included in the "Hanford Land Disposal Restrictions Strategy Plan for Mixed Wastes" to be transmitted by DOE to EPA/Ecology.

Subtask/FY	1990	1991	1992	1993	1994	1995	1996
LDR Plan	0	75	0	0	0	0	0
Annual Report	0	100	100	100	100	100	100
Interim Milestones	0	25	25	25	25	25	25
Mixed Waste Treatment	0	0	3000	3000	3000	2000	2000
Total	0	200	3125	3125	3125	2125	2125

PRIORITY RATIONALE: Priority 2 was chosen because this workscope directly supports a TPA milestone.

LEVEL OF CONFIDENCE RATIONALE: The level of confidence is low because this is a new activity and the scope of work has not been negotiated with EPA/Ecology. A high level of uncertainty exists regarding mixed waste treatment requirements.

ACCOMPLISHMENTS TO-DATE: This is new workscope.

ACTIVITY ALTERNATIVES: Alternatives to this activity are: (1) Do not fund the activity. However, this would result in Hanford Site

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ACTIVITY DATA SHEET

FY 92 ADS ID: 9603-6G-0

noncompliance with RCRA LDR regulations regarding the storage and disposal of mixed wastes (2) Defer implementation of mixed waste treatment into future fiscal years to the maximum practicable extent. This alternative would require EPA/Ecology concurrence with the respective LDR Plan schedules.

Prepared by: _____ for
BA AUSTIN

Approved by: _____ for
RE GERTON 5-9-90

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9645-6L-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0114
FACILITY: HANFORD ENVIRONMENTAL LABORATORIES
TITLE: 222-S LABORATORY FACILITY COMPLEX (W6L)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA, ORD, DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)						FUNDING ISSUE		
	1990	1991			1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	7185	8036	8600	7495	13972	14532	15680	16267	17336
CAPITAL EQ	705	2079	705	615	852	785	1500	1500	1500
GP PROJECTS							1200	1200	1200
LINE ITEMS									
TOTAL	7890	10115	9305	8110	14824	15317	18380	18967	20036

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>COMPLETE SELECTED TASK MATRIX ITEMS EACH YEAR		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This ADS provides for the operation, maintenance, calibration, and repair of the 222-S Laboratory Facility Complex from 1990 through 1996. In addition, as the HEC Line Item Sub-projects (89-D-172) become operational (FY 1992 and FY 1994), this ADS will pick up the costs to operate, maintain, calibrate, and repair them, which explains the delta between FY 1991 Required and FY 1992 funding levels. The two sub-projects are: The Waste Sampling and Characterization Facility (WSCF) and the 222-S Hot cell Addition (Ref: ADS's No. 9445-4L-0 and 9447-4L-0).

FY 92 ADS ID: 9645-6L-0

Programmatic work that is dependent on analytical support from these facilities:

1) Process samples from all operating plants at Hanford.
2) Environmental effluent samples from all operating plants.
3) Major development work for most programs.
4) Almost all of the TPA milestones.

Without proper laboratory analyses, much of the process-related work at Hanford would have to be shut down. Therefore, this upgrade must be implemented in order to maintain continuity of operations, to support ongoing programmatic goals and, to maintain compliance with the new environmental regulatory requirements, specifically RCRA/CERCLA.

The heating, ventilating and air conditioning (HVAC) and electrical systems of the 222-S Building are being upgraded via FY 1990 Line Item 89-D-171 (reference ADS No. 9646-4L-0).

The delta between FY 1991 Target and Required funding reflects the increased solid waste burial rates and escalation basis change from FY 1991 to FY 1992 submittals of the Five-Year Plan. Failure to fund this activity at the required level will place the 222-S Laboratory very close to the Minimum Case Level. At a time when demands for analytical services is on a sharp increase it could jeopardize the Laboratory's ready-to-serve status for any new work required. While this ADS is not directly related to the Tri-Party Agreement, most of the TPA milestones cannot be met without extensive use of the Environmental Laboratories.

Capital Equipment Not Related to Construction (CENRTC) covered in this ADS includes:

- Hot Cell Manipulators
- Building Systems Upgrades (Instrument Air Compressor, Process Vacuum Pumps, Liquid Nitrogen System, etc.)
- Replacement Fume Hoods (multi-year program to replace all of the 35 plus-year-old hoods).

FUNDING BASIS:
Funding estimates for the 222-S Laboratory Facility Complex portion of this ADS are based on historical costs and trends. Funding estimates for the additional Low-Level Laboratory (WSCF), scheduled to be operational in the second quarter of FY 1992, are based on 50% of 222-S requirements. Funding estimates for the additional Hot Cells, scheduled for operation in the third quarter of Fy 1994, are based on pro-rated 222-S requirements.

PRIORITY RATIONALE:
This activity, if terminated, would result in significant programmatic or resource impact. Without proper laboratory analyses many of the process-related activities (including PUREX, Plutonium Finishing Plant,

FY 92 ADS ID: 9645-6L-0

and Tank Farm Operations) would have to be shut down. Also, much of the analytical work related to the Tri-Party Agreement depends upon the 222-S Laboratory.

LEVEL OF CONFIDENCE RATIONALE:
The level of confidence for the 222-S portion of this workscope is HIGH based on historical data and trends. Starting in 1992 a MEDIUM level of confidence is assigned to this ADS based on the uncertainties of maintenance and repair requirements of the new facilities (HEC sub-projects) beginning in the second quarter of FY 1992. It is assumed that no regulatory changes will occur that will significantly add to the cost estimates.

ACCOMPLISHMENTS TO DATE:

- o Replaced the Roof on the 222-S building.
- o Have completed 80% hood re-wiring and floor re-tiling (will be complete by end of FY.)
- o Painted the outside of 222-S.
- o Upgraded the 219-S piping, tanks, and instrumentation (for transfer of high-level liquid waste to tank farms)
- o Made modifications to several rooms and hoods to accommodate new equipment for RCRA/CERCLA CLP protocol analyses (this work was funded under ADS No. 9446-4L-0)

ACTIVITY ALTERNATIVES:
Cease this activity. This is only an alternative if the Hanford Site is decommissioned. This facility is essential as long as the Hanford Mission continues. Without proper laboratory analyses, much of the process-related work at Hanford would have to be shut down. Also, many of the TPA milestones require extensive support from the 222-S Laboratory.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
GENERAL PLANT PROJECTS				
	94G-GFW-XXX	MISCELLANEOUS GPP'S		92107

Prepared by: D A Turner for
BA AUSTIN

Approved by: W Matthews for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9646-6L-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0323
FACILITY: HANFORD ENVIRONMENTAL LABORATORIES
TITLE: 222-S LABORATORY HVAC/ELECTRICAL UPGRADE (W-001)(W6L320C)
PRIORITY: 1 NEPA: N/D
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: RCRA, CERCLA, DOE, ORD
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)					FUNDING ISSUE			
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	127		100	100	125	100			
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS	1084	4100	4100	4100	1116	0	0	0	0
TOTAL	1211	4100	4200	4200	1241	100	0	0	0

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
5/31/93	>COMPLETE PROJECT W-001, HVAC AND ELECTRICAL UPGRADES		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestones and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

This FY 1990 Line Item (90-D-171) will upgrade the existing heating, ventilating, and air conditioning (HVAC) system to provide the proper level of airborne contamination control necessary to meet radiological and personnel safety requirements and to provide environment control for temperature and humidity sensitive instruments. It will also upgrade the 480 volt electrical system to accommodate the increased demands stemming from the HVAC upgrade and to allow the 222-S Laboratory Facility Complex to eliminate dependency on the 202-S Facility (slated for decommissioning in the mid-90's) for the 370 KW of power currently

supplied from 202-S.

Programmatic work that is dependent on analytical support:
1) Process samples from all operating plants at Hanford.
2) Environmental effluent samples from all operating plants.
3) Almost all of the Tri-Party Agreement milestones.
4) Major development work for most programs.

The existing HVAC system consists of components based on 35 year old technology. Because of age and extended use these components are no longer capable of providing reliable operation in the radiochemical laboratory. Without proper laboratory analyses, much of the process-related work at Hanford would have to be shut down. Therefore, this upgrade must be implemented in order to maintain continuity of operations, to support ongoing programmatic goals and, to maintain compliance with the new environmental regulatory requirements.

While this ADS is not directly related to the Tri-Party Agreement, most of the TPA milestones cannot be met without extensive use of the Hanford Environmental Laboratories. (Reference ADS: 9645-6L-0).

Capital Equipment Not Related to Construction (CENRTC) covered in this ADS includes:

- Hot Cell Manipulators
- Building Systems Upgrades (Instrument Air Compressor, Process Vacuum Pumps, Liquid Nitrogen System, etc.)
- Replacement Fume Hoods (multi-year program to replace all of the 35 plus-year-old hoods)

The decrease from FY 1991 required to FY 1992 reflects the Budget Outlay (BO) for the project which provides for heavy procurement activity in FY 1991.

FUNDING BASIS:
Funding is based on historical costs and trends and on the completed CDR.

PRIORITY RATIONALE:
This activity, if terminated, would result in significant programmatic or resource impact. Without proper laboratory analyses many of the process-related activities (including PUREX, Plutonium Finishing Plant, and Tank Farm Operations) would have to be shut down. Also, much of the analytical work related to the Tri-Party Agreement depends upon the 222-S Laboratory.

LEVEL OF CONFIDENCE RATIONALE:
The HIGH level of confidence for this project is based on its validation

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FY 92 ADS ID: 9646-6L-0

as a FY 1990 Line Item. It is assumed that no regulatory changes will occur that will significantly add to the cost estimates.

ACCOMPLISHMENTS TO DATE:

- o Conceptual Design Report completed
- o Validated as a FY 1990 Line Item (90-D-171)
- o Definitive Design has begun (ECD: Mar 1991)

ACTIVITY ALTERNATIVES:

Defer or delay this activity. Since this project has been validated and selection of an A/E for definitive design and construction has been made, the involvement of knowledgeable personnel and the momentum established would be lost if the project were deferred or delayed. The cost to re-establish the momentum would be great.

Cancel this activity. This is only an alternative if the 222-S Laboratory is to be decommissioned. Completion of this project is essential in order to insure reliable operation of this Facility into the twenty-first century.

CONSTRUCTION PROJECTS:

FUND	PROJECT	TITLE	TEC	XCUT REF
LINE ITEMS				
	90L-GFW-001	222S VENT SYSTEM UPGR (90-D-171)	6300	90162

Prepared by: BA AUSTIN

Approved by: RE GERTON 5-9-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9691-6S-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0015
FACILITY: CONTINUITY OF OPERATIONS
TITLE: INVENTORY ADMINISTRATION (W6S1)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

	BUDGET AUTHORITY ($000's)								FUNDING ISSUE
	1990 APPROP	1991 TAR	1991 REQ	1991 BUD	1992 REQ	1993 REQ	1994 REQ	1995 REQ	1996 REQ
OPERATING	1575	1195	1700	1700	1785	1785	1785	1785	1785
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	1575	1195	1700	1700	1785	1785	1785	1785	1785

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
>			

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The following narrative is based on receiving FY 1991 Bush Budget guidance.

The Waste Operations Program has been designated by DOE-HQ as responsible for maintaining inventories for the Hanford Site.

1. This activity funds warehousemen, chemicals and process spares inventories administration personnel in support of Hanford Site Programs, and program support personnel. Warehousemen perform all site receiving, warehousing, and issuing of process spares and essential chemicals. Administration personnel provide support to identification, cost, classification, and procurement of process spares and chemicals, as well as overall inventory management.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9691-6S-0

Program support personnel provide program management and program planning and control support.
2. A reserve for estimated losses of process spares, coal, and chemicals due to disposal, excess, shrinkage, deterioration, and damage is funded by this activity.
3. This activity funds the warehousing cost (2101-M Facility) for Waste Management/Landlord facility and equipment process spares.

Explanation of Budget Growth/Changes from FY 1991 Target to FY 1991 Required:
In FY 1990, the occupancy warehousing assessment increased $236,000, from $380,000 to $616,000, due to an "even"ing out of occupancy rates across the site. Also in FY 1990, increases to staffing levels were realized. These additional staff support Spares Warehousing, Chemicals Administration, and Program Support activities. Addition of these staff was not anticipated, and therefore not included in the FY 1991 Five-Year Plan (FY 1991 Target). These staff provide: implementation of the modified First-Drop Receiving and Intra-Area Transportation program; automation of chemicals consumption tracking and reporting; and program management, planning, and control support. FY 1990 Appropriation was then escalated to reach FY 1991 Required level. Impact of not fully funding this activity would be the layoff of warehouseman, reduced inventory control, and spares unavailability. This could result in the unsafe and/or interrupted operation of Waste Management and/or the Hanford Site processing equipment and facilities.

Explanation of Budget Growth/Change from FY 1991 Bush Budget to FY 1992 Required: Escalation.

FUNDING BASIS:
This activity was included in the Waste Operations FY 1991 Budget Submittal and Five-Year Plan.

PRIORITY RATIONALE:
This activity funds ongoing waste management activities required to maintain safe conditions. These activities, if terminated, could result in the interruption of processing plant operations and disruption to Hanford Site operations.

LEVEL OF CONFIDENCE RATIONALE:
1. Based on existing staff levels, supporting minimum requirements.
2. Based on standard labor rates and escalation assumptions.

ACCOMPLISHMENTS TO DATE:
1. All plans were developed to initiate a major service upgrade in the 200 Area in FY 1990. The First-Drop Receiving and Intra-Area Transportation program will achieve economies resulting in better overall service to the Hanford Site and a reduction in materials

FY 92 ADS ID: 9691-6S-0

accumulation in uncontrolled environments in the plants. This is a follow-on action to long-term corrective actions supporting Inspector General Audit WR-OC-87-7.

2. An action plan was completed to augment the Chemicals Administration staff to support the automation of the chemicals inventory. Automating this inventory will enable prompt response to customer and regulatory agency needs/requests by enhancing the consumption tracking and reporting of the Hanford Site chemicals inventory.

ACTIVITY ALTERNATIVES:
Not funding. Impacts:

1. Staff would not be available to provide: process spares and chemicals inventories administration, spares warehousing support, or program support.
2. Failure to automate chemicals inventory tracking, resulting in continued inability to respond (promptly) to environmental compliance issues and regulatory agency requests.
3. Inability to fund warehousing space for process spares.
4. Failure to implement the modified First-Drop Receiving and Intra-Area Transportation program supporting Inspector General Audit, WR-OC-87-7.
5. Allow plants to provide warehousing and control of their own spares. Result would be potential deterioration of spares in uncontrolled environments. Safety concerns could result because of limited storage space at the plants. This reduced inventory control would also result in loss, theft, and ultimately increased costs to the Hanford site.

Prepared by: R. B. Agee
for BA AUSTIN

Approved by: W. Gerton for
RE GERTON 5-4-90

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ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
ACTIVITY DATA SHEET

FY 92 ADS ID: 9692-6S-0

OPERATIONS OFFICE: RL LAST UPDATE: 4/26/90
INSTALLATION.....: HANFORD FY 91 ADS ID: RL-0026
FACILITY: CHANGES IN INVENTORY
TITLE: INVENTORY CHANGE (W6S2)
PRIORITY: 1 NEPA: N/A
B&R CODE: EW-30-10-01 DOE PROGRAM: EM CATEGORY: WM
A-106: N TPA MS: N
REGULATORY DRIVERS: DOE
CONFIDENCE LEVEL (H/M/L): H HEC SUBPROJECT (Y/N): N
DOE CONTACT: GERTON, RE PHONE: 509-376-1366

== FUNDING SUMMARY ==

		BUDGET AUTHORITY ($000's)				FUNDING ISSUE		
	1990	1991		1992	1993	1994	1995	1996
	APPROP	TAR	REQ	BUD	REQ	REQ	REQ	REQ	REQ
OPERATING	-850	510	300	46	569	315	315	315	315
CAPITAL EQ									
GP PROJECTS									
LINE ITEMS									
TOTAL	-850	510	300	46	569	315	315	315	315

== MILESTONES ==

DATE	DESCRIPTION	DOE MS	TPA MS
9/30/90	>PROCURE AND SET UP CRITICAL AND ESSENTIAL SPARE PARTS FOR B PLANT AS IDENTIFIED IN AUDIT, SD-WM-ER-033.		

== NARRATIVE ==

ACTIVITY DESCRIPTION:
The above milestone and the following narrative are based on receiving FY 1991 Bush Budget Guidance.

The Waste Operations Program has been designated by DOE-HQ as responsible for maintaining inventories for the Hanford Site.
1. Procure and set up critical spare parts for B Plant as identified in audit document, "B Plant Essential Spare Parts Requirements," SD-WM-ER-033.
2. Maintain (increase/decrease) inventories of process spares, coal, chemicals, general supplies, computer stores, computer maintenance parts,

and miscellaneous fuels for the Hanford Site.
Process Spares (warehoused in the 2101-M Facility) - maintain current inventory and procure new and replacement parts to support the ongoing safe operation of Waste Management/Landlord process equipment.
Coal - maintain five-month supply to support uninterrupted process/heating steam needs for all Hanford Site facility operations.
Chemicals - support uninterrupted processing plant operations.
General Supplies and Computer Stores/Maintenance - support continuity of all Hanford Site programs.
Fuels/Miscellaneous -provide safe and timely service to the Hanford Site (Miscellaneous includes weed chemicals and road materials).
Budget Growth/Explanation of Change from FY 1991 Target to FY 1991 Required:
NOTE: The negative funding level for FY 1990 Appropriation (-$850,000) is associated with one-time planned reduction to the coal and computer stores inventories. The FY 1989 ending inventory level of coal was high due to unanticipated plant shutdowns thereby reducing the need for coal to generate process steam/heat. Computer stores FY 1989 ending inventory level was also high. This was due to yearend funding restraints which delayed processing and costing, until FY 1990, of items already received into inventory.
For FY 1991, the funding request decreased $210,000 (from Target of $510,000 to Required of $300,000). Procurement of additional, essential spares to satisfy B Plant audit SD-WM-ER-033 is scheduled for completion in FY 1990. This one-time funding need is no longer carried over into FY 1991.
Explanation of Budget Growth/Change FY 1991 Bush Budget to FY 1992 Required:
The $254K ($300 - $46 = $254) of inventory change not funded by the revised Bush Budget in FY 1991 was bow-waved to FY 1992 to avoid the risk of not having spare parts and/or other critical inventories available to support the ongoing safe operation of Waste Management processing equipment and facilities, and of the Hanford Site.

FUNDING BASIS:
1. Spare parts needs identified by operating facilities, and current and projected replacement values. Includes spare parts inventory growth supporting new projects on the site, and escalation on replacements to existing inventories.
2. This activity was included in the Waste Operations FY 1991 Budget Submittal and the Five-Year Plan.

PRIORITY RATIONALE:
This activity funds ongoing waste management activities required to maintain safe conditions. This activity funds critical materials and spares required to maintain facilities and equipment in a safe operating condition. These activities, if terminated, would result in the interruption of processing plant operations and disruption to Hanford

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE-YEAR PLAN
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FY 92 ADS ID: 9692-6S-0

Site Operations.

LEVEL OF CONFIDENCE RATIONALE:
Based on standard escalation rates on replacements to existing inventory levels. Also based on specific spare parts price list per audit, SD-WM-ER-033.

ACCOMPLISHMENTS TO DATE:
1. General Stores captions were streamlined (through excess, additions, and revisions) to better serve the changing needs of the Hanford Site. A systems contract (where a vendor maintains and supports the site's material needs) was implemented to supply automotive and heavy equipment parts to the operating contractor. A plan was formulated for another systems contract for janitorial supplies. Contract implementation is scheduled for the fourth quarter of FY 1990.
2. Unneeded chemicals worth $38,000 were identified and actions were taken to put them up for public sale.

ACTIVITY ALTERNATIVES:
1. Placement of more systems contracts. This alternative is currently being evaluated. Further implementation of systems contracts would reduce the funding required to maintain inventories.
2. Not funding. Impacts: Inability to replenish and/or supplement process spares, coal, chemicals, general supplies, computer stores, computer maintenance parts, and fuels inventories. This would result in interruption of processing plant operations and the safe and timely operation of the Hanford Site.
3. Delayed funding of specific inventory captions. Impact: Potential risk of interruption to facility and equipment operations on the Hanford site. Parts and materials would not be available for maintenance and other upgrade activities.

Prepared by: R. B. Agee
for BA AUSTIN

Approved by: [signature] for
RE GERTON 5-9-90

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