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STATION 19

## ENGINEERING DATA TRANSMITTAL

Page 1 of 1

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(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	SNF-5925	N/A	0	Acceptance of Beneficial Use for the 100K Service Water Pumps Auto-Start Modifications - Project 1K-97-3466M	Q	I		

16. KEY					
Approval Designator (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
E, S, Q, D or N/A (see WHC-CM-3-5, Sec. 12.7)		1. Approval	4. Review	1. Approved	4. Reviewed no/comment
		2. Release	5. Post-Review	2. Approved w/comment	5. Reviewed w/comment
		3. Information	6. Dist. (Receipt Acknow. Required)	3. Disapproved w/comment	6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)									
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature
1	/	Design Authority	<i>[Signature]</i>	3/23/00	DT Milson X3-74				
1	/	Cog. Mgr.	<i>[Signature]</i>	3-1-00	FJ Muller X3-85				
/	/	QA	<i>[Signature]</i>	3-23-00	JI Diehl X3-80				
/	/	Plant Eng.	<i>[Signature]</i>	3-2-00	DD Craig X3-76				
/	/	Plant Eng.	<i>[Signature]</i>	3/23/00	EM Myott X3-74				
/	/	Operations	<i>[Signature]</i>	3-22-00	CD Lucas X3-74				
/	/	Maint.	<i>[Signature]</i>	3-24-00	RA Briskis X3-57				

17. F. J. Muller <i>[Signature]</i> Signature of EDT Originator	18. F. J. Muller <i>[Signature]</i> Authorized Representative For Receiving Organization	19. F. J. Muller <i>[Signature]</i> Design Authority/ Cognizant Manager	20. DOE APPROVAL (if required) Ctrl. No. N/A <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comment
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## DISTRIBUTION SHEET

<b>To:</b> Distribution	<b>From:</b> F. J. Muller	<b>Page 1 of 1</b>
<b>Project Title/Work Order</b> Acceptance for Beneficial Use for the 100K Service Water Pumps Auto-Start Modifications ~ Project 1K-97-3466M		<b>Date:</b> March 1, 2000
		<b>EDT No.</b> 627373
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SNF Project Files 1K-97-3466M	X3-85	X			

# **Acceptance for Beneficial Use for the 100K Service Water Pumps Auto-Start Modifications — Project 1K-97-3466M**

Prepared for the U.S. Department of Energy  
*Assistant Secretary for Environmental Management*

Project Hanford Management Contractor for the  
U.S. Department of Energy under Contract DE-AC06-96RL13200

**Fluor Hanford**

**P.O. Box 1000**

**Richland, Washington**

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Revision 0  
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# Acceptance for Beneficial Use for the 100K Service Water Pumps Auto-Start Modifications — Project 1K-97-3466M

F. J. Muller  
Fluor Hanford

Date Published  
February 2000

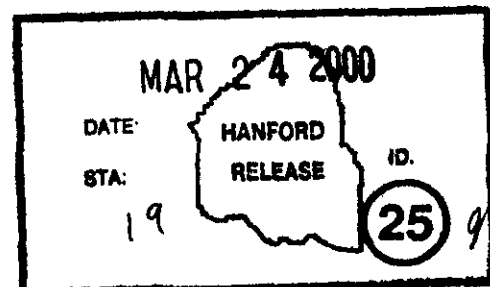
Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the  
U.S. Department of Energy under Contract DE-AC06-96RL13200

**Fluor Hanford**  
P.O. Box 1000  
Richland, Washington

  
Release Approval

3/23/00  
Date



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**ACCEPTANCE FOR BENEFICIAL USE  
FOR THE 100K SERVICE WATER PUMPS AUTO-START MODIFICATIONS**

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**Key Words:** K Basins service water pumps.

**Abstract:** This Acceptance for Beneficial Use checklist covers the modifications to the K Basins service water pumps that added an auto-start function for reliability of the fire suppression system.

**ACCEPTANCE FOR BENEFICIAL USE  
FOR THE 100K SERVICE WATER PUMPS AUTO-START MODIFICATIONS**

**1.0 INTRODUCTION**

The following information is to document the Acceptance for Beneficial Use (ABU) with a checklist and supporting information.

The service water pumps have been modified so that on low system pressure after a time delay, the standby pump will automatically start.

The ABU process defined in K Basins administrative procedure (AP) CS-06-019 has been utilized to produce this document. A list of documentation that was deemed to be required for transfer of custody has been developed. The documentation requirements were put into a matrix in which further detail could be added. Those items judged to not be applicable or required were not added to the matrix. These latter items are marked as "N/A" on the marked-up sample checklist included. Other pieces of documentation that may not have been identified on the sample checklist, but were judged desirable for turnover were added to the sample checklist and matrix.

This ABU checklist matrix indicates the organizations that are responsible for the preparation of – or for the provision of input to – the identified documentation required by K Basins Operations. Looking at the items in the matrix, it can be seen that the subproject does not bear the sole responsibility for the generation of all these items. Rather, many items are outside of the subproject's scope such that other Spent Nuclear Fuel (SNF) organizations are needed to prepare or perform them (e.g., Training, Procedures, Facility Engineering, Startup, etc.).

This supporting document, by virtue of all signatures approving it on the Engineering Data Transmittal, documents an agreement among the various represented disciplines and organizations within the SNF Project as to what is required in terms of documentation to transfer custody to Operations.

**2.0 ENGINEERING DOCUMENTATION**

Engineering Test Plan is not required for this activity. The SNF Project has prepared a SNF Project Execution Plan that covers all subprojects.

Activity Schedule is updated at a weekly schedule meeting. Each contractor is required to maintain an activity schedule.

Final Safety Analysis Report (SAR) is not required for this activity. The K Basins SAR, WHC-SD-WM-SAR-062, *K Basins Safety Analysis Report*, covers all activities in the K Basins. An Unreviewed Safety Question (USQ) screening for design and installation has been completed, and if required modifications to the SAR will be included in the yearly update.

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Interim Safety Basis – update, not required, the K Basins SAR covers this activity

Safety Assessment in the form of USQ screenings have been completed.

Safety Equipment List is not required.

Operational Safety Requirements or update of existing is not required. The system does not have any safety functions.

Operational Safety Document or update existing not required. The system is classified as general service.

Design Criteria has been incorporated into the project engineering change notices.

System Design Description will be modified to include the auto-start function at the next update.

Test Plans/ Specifications are not required. Testing was accomplished within the work package.

Acceptance Testing Procedures (ATPs) and Final Test Report have been completed.

Operation Test Procedures (OTPs) and Final Test Report are not required.

Environmental Impact Statement is covered under the K Basin EIS DOE/EIS-0245F, *Management of Spent Fuel from the K Basins at the Hanford Site*, Richland, Washington, January 1996.

Environmental Report is not required.

Environmental Permits are not required.

Hazardous Waste Disposal Plan/Procedures are not required, as there was not any hazardous waste.

Solid Waste Disposal Plan/Procedures have been completed, this was the Waste Management Plan in the Job Control System (JCS) package.

Stress/Seismic activity not required

Stress/Design Report is not required.

Design Specifications/Report included in the modification Engineering Change Notices (ECNs).

Equipment specifications included in the modification ECNs.

Procurement specifications included in the modification ECNs.



Construction Specifications included in the modification ECNs.

Essential Materials Specifications are not required.

Final Design Drawings are complete for this installation, there were only three control circuitry drawings and the rest was completed by plant ECNs.

Installation work plan was the JCS package that is completed.

Installations drawing were included in the ECNs.

As-Built drawings, the three control circuitry drawings were as-built and have been made support drawings.

Interface Control (IC) Drawings are not required.

Instrument Electrical Flow Diagram drawings are not required, design media was the ECNs.

Piping and Instrumentation Drawings are not required, design media was the ECNs.

Drawing Tree is not required.

Incorporate outstanding project generated ECNs as part of the as-building activity is completed as required by procedure.

Components Index has been updated.

### **3.0 ADP DOCUMENTATION**

The Service Water Pump Upgrades will not be controlled remotely by a computerized system. The system will not require any software controls.

### **4.0 TRAINING**

Training plan is not required.

Training manual is not required.

Training of operating crews has been completed during the ATP.

Training of maintenance crews has been completed.

Training mock up is not required.

## **5.0 OPERATIONS/MAINTENANCE**

Operating and Maintenance (O&M) Manual is not appropriate for this activity.

Operating procedures have been modified.

Surveillance procedures have been modified.

Calibration procedures are not required, however this will be addressed by developing a semi-annual auto start test procedure. Currently being planned as it is proposed for the future.

Preventive maintenance (PM) procedures will be addressed by developing a semi-annual auto start test procedure. Currently being planned as it is proposed for the future.

Repair/maintenance procedures are not required.

Functional check procedures are not required. The system will be run by operating procedures.

PM/S Datasheets are not required.

## **6.0 QUALITY ASSURANCE**

Inspection Plans have been completed and documented in the construction work plan.

Quality Assurance Program Project (QAPP) is not written for individual subprojects. The SNF QAPP will cover the CCS activity.

QAPJP will not be prepared.

## **7.0 PROCUREMENT**

Vendor Information files are not required.

Comprehensive Equipment List is not required.

Spare parts lists are not required.

Spare parts in stock does not apply.

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**100K SERVICE WATER PUMP UPGRADES 1K-97-3466M**

<b>DOCUMENTATION REQUIRED FOR ACCEPTANCE FOR BENEFICIAL USE</b>			
<b>DESCRIPTION</b>	<b>RESPONSE</b>	<b>DESCRIPTION</b>	<b>RESPONSE</b>
<b>ENGINEERING</b>		<b>ADP</b>	
<input type="checkbox"/> Engineering Task Plan		<input type="checkbox"/> Software Configuration Mgmt Plan	
<input type="checkbox"/> Activity Schedule		<input type="checkbox"/> System Requirements Spec	
<input type="checkbox"/> Final Safety Analysis Report		<input type="checkbox"/> Software Design Description	
<input type="checkbox"/> Interim Safety Basis – update		<input type="checkbox"/> Software Validation/Verification	
<input checked="" type="checkbox"/> Safety Assessment (USQ)	See Attached	<input type="checkbox"/> _____	
<input type="checkbox"/> Safety Equipment List		<b>TRAINING</b>	
<input type="checkbox"/> Operational Safety Requirements or update existing		<input type="checkbox"/> Training Plan – N/A	
<input type="checkbox"/> Operational Safety Document(s) or update existing		<input type="checkbox"/> Training Manuals – N/A	
<input type="checkbox"/> Design Criteria		<input checked="" type="checkbox"/> Training to Operating Crew	See Attached
<input checked="" type="checkbox"/> System Design Description	See Attached	<input checked="" type="checkbox"/> Training to Maintenance Crews	See Attached
<input type="checkbox"/> Test/Plan Specifications		<input type="checkbox"/> Training Mock-Up – N/A	
<input checked="" type="checkbox"/> Acceptance Test Procedures and Final Test Report	See Attached	<input type="checkbox"/> _____	
<input type="checkbox"/> Operational Test Procedures and Final Test Report		<b>OPERATIONS/MAINTENANCE</b>	
<input checked="" type="checkbox"/> Environmental Impact Statement	See Attached	<input type="checkbox"/> Operating and Maintenance Manuals	
<input type="checkbox"/> Environmental Report		<input checked="" type="checkbox"/> Operating Procedures	See Attached
<input type="checkbox"/> Environmental Permit		<input checked="" type="checkbox"/> Surveillance Procedures	See Attached
<input type="checkbox"/> Hazardous Waste Disposal Plan/Procedures		<input type="checkbox"/> Calibration Procedures	
<input checked="" type="checkbox"/> Solid Waste Disposal Plan/Procedure	See Attached	<input checked="" type="checkbox"/> Preventative Maintenance Procedures	See Attached
<input type="checkbox"/> Stress/Seismic Analysis		<input type="checkbox"/> Repair/Maintenance Procedures	
<input type="checkbox"/> Stress/Design Report		<input type="checkbox"/> Functional Check Procedures	
<input type="checkbox"/> Design Specifications/Report		<input type="checkbox"/> PM/S Datasheets	
<input type="checkbox"/> Equipment Specifications		<input type="checkbox"/> _____	
<input type="checkbox"/> Procurement Specifications		<input type="checkbox"/> _____	
<input type="checkbox"/> Construction Specification		<input type="checkbox"/> _____	
<input type="checkbox"/> Essential Material Specification		<input type="checkbox"/> _____	
<input checked="" type="checkbox"/> Final Design Drawings	See Attached	<b>QUALITY ASSURANCE</b>	
<input type="checkbox"/> Installation Drawings		<input checked="" type="checkbox"/> Inspection Plan	See Attached
<input checked="" type="checkbox"/> Installation Work Plan	See Attached	<input type="checkbox"/> QAPP	
<input type="checkbox"/> As-built Drawings		<input type="checkbox"/> QAPIP – N/A	
<input type="checkbox"/> Interface Control Drawings		<input type="checkbox"/> _____	
<input type="checkbox"/> IEFD Drawings		<b>PROCUREMENT</b>	
<input type="checkbox"/> Piping and Instrumentation Drawings/Diagram (P&ID)		<input type="checkbox"/> Vendor Information Files	
<input type="checkbox"/> Drawing Tree		<input type="checkbox"/> Comprehensive Equip. List	
<input type="checkbox"/> Incorporate Outstanding Project Generated ECNs		<input type="checkbox"/> Spare Parts List	
<input checked="" type="checkbox"/> Component Index	See Attached	<input type="checkbox"/> Spare Parts in Stock	
<input type="checkbox"/> _____		<input checked="" type="checkbox"/> See attached component list	See Attached
<input type="checkbox"/> _____		<input type="checkbox"/> _____	
<input type="checkbox"/> _____		<input type="checkbox"/> _____	

Documentation Required for 1K-97-3466M Service Water Pump Upgrades

Checklist Item Description	Associated Documentation Desc	Responsible Party	Due Date	Status/Comments
ENG - Safety Assessment	USQ screen performed on all ECN	Safety	comp	Copies in JCS work package 1K-97-3466
ENG -System Design Description	WHC-SD-SNF-SDD-002, REV. 0	Engr	on going	Current referenced SDD will include auto-start function at next update
ENG -Acceptance Test Procedures	W-405C-1K-97-3466-ATP-001	Engr	comp	Copy in JCS package 1K-97-3466 archived and available from RMIS
ENG - Environmental Impact Statement/ Hanford NEPA Screening forms	Completed with work package preparation	Envir	comp	Copy in JCS package 1K-97-3466 archived and available from RMIS
ENG - Waste Management Plans	Completed with work package preparation	Proj	comp	Copy in JCS package 1K-97-3466 archived and available from RMIS
ENG -Design Drawings	H-1-83762 sht. 1 H-1-83763 sht. 1 H-1-83764 sht. 1 ECN 644022 superceded by ECN 649610 ECN 649079 superceded by ECN 649610 ECN 649610 superceded by ECN 606501 ECN 606501 work completed to this ECN ECN 648819 documents as-built conditions	Engr	comp	Support drawings
ENG -Installation Work Plan	1K-97-3466M "W-405-C, Essential Systems Upgrade- Electrical"	Proj	comp	Work package completed, closed out archived and available from RMIS
ENG -Component Index	Generate sheet for each component	Proj	comp	Incorporated into system all components
Training	Verbal instruction provided and brief on procedure changes for operating and surveillance procedure modifications	Training	comp	Documented on J-6 which is contained in the JCS work package 1K-97-3466 archived and available from RMIS
Operations/Maintenance	OP-23-008E modified SP-23-004E modified	Ops	comp	Procedure modifications complete
Preventive Maintenance Procedures	Semi annual auto start test procedure	Plant Engr	on going	System Cognizant Engineer plans to develop semi annual procedure to test the auto start function of the pumps
Quality Assurance	Inspections documented in FDNW construction work package CWP-W405C-1	FDNW	comp	A/I signoffs complete
Procurement	No Vendor information (VI) or spare parts required	Engr	comp	A list of common components associated with the auto-start mods is attached for quick reference

## ***Service Water Pump Upgrades 1K-97-3466***

### **Component List**

- Pressue Switches  
Square D -GHW-21 class 9012
- DC Timing Relay  
XD000XTE1, Square D class 8501
- DC Utility Relay  
XUD040663 Square D class 8501