JUN 4 1999 Sta. 4 58	ENGINEERING DATA TRANSMITTAL	Page 1 of 1 1. EDT 617973
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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			
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				FOR ROTARY MODE CORE							
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1	/	Design Authority	G. P. Janicek	6/3/99	57-12	1	/	J. L. Smalley	J. L. Smalley	6/3/99	57-12
1		Design Agent	F. S. Stong	6/3/99	57-12						
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1	/	Cog. Mgr.	J. S. Schofield	6/3/99							
		QA									
		Safety									
		Env.									
18. FS Stong			19. RM Boger			20. JS Schofield			21. DOE APPROVAL (if required)		
Signature of EDT Originator			Authorized Representative for Receiving Organization			Design Authority/Cognizant Manager			Ctrl No. _____		
Date			Date			Date			☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments		

ENGINEERING TASK PLAN FOR ROTARY MODE CORE SAMPLE TRUCK CALIBRATION PROCEDURE SUPPORT ENGINEERING

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Abstract: This Engineering Task Plan defines the tasks associated with providing an overview, with respect to the Authorization Basis and PHMC procedures, as applicable, of the calibration documentation for operational equipment for which Characterization Engineering has calibration responsibility.

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**ENGINEERING TASK PLAN
FOR ROTARY MODE CORE SAMPLE TRUCK CALIBRATION PROCEDURE
SUPPORT ENGINEERING**

Prepared for

**Characterization Engineering
Lockheed Martin Hanford Corp.**

by

**F.S. Stong
COGEMA Engineering Corporation**

June 2, 1999

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1.0 INTRODUCTION

Characterization Project Operations (CPO) is responsible for the safe operation and maintenance of the following equipment:

- Push Mode Core Sample (PMCS) truck system (#1 truck and ancillary equipment).
- Rotary Mode Core Sample (RMCS) truck systems (#2, #3 and #4 trucks and ancillary equipment).

Calibration adequacy, accuracy, and compliance of the instrumentation associated with all of the above equipment is the responsibility of Characterization Engineering (CE). In order to assure compliance with Project Hanford Management Contract (PHMC) policies and procedures [LMHC 1998a], [LMHC 1998b], it is necessary for CE to perform periodic reviews of the calibration process and to correct any deficiencies noted. This Engineering Task Plan (ETP) is the management plan document for accomplishing this periodic review. Any changes in the scope of the ETP [Raymond 1997] shall require formal direction by the CE Manager.

Characterization Engineering has additional responsibility associated with the following equipment, but because these items are not released to Operations, they are not included in this task:

- Cone Penetrometer and ancillary equipment.
- Light Duty Utility Arm (LDUA) system and ancillary equipment.
- Long Length Contaminated Equipment Removal System (LLCERS) and ancillary equipment.

2.0 SCOPE

This ETP defines the tasks associated with providing an overview, with respect to the Authorization Basis and PHMC procedures, as applicable, of the calibration documentation for operational equipment for which CE has calibration responsibility as detailed in Section 3.2, *Engineering Tasks*.

3.0 DESCRIPTION

3.1 Physical Description

This task does not include any modification of the equipment. It only provides a listing of instruments for which CE has calibration responsibility, a review of PMCS and RMCS calibration procedures, an assessment of their correctness and compliance, and their revision, if necessary.

3.2 Engineering Tasks

The engineering tasks addressed by this plan consist of the following:

- a) Compile a complete list of instruments for which CE has calibration responsibility.
- b) Determine applicable PHMC procedures and perform an evaluation of PMCS truck system #1 and RMCS truck systems #3 and #4 calibration procedures and data sheets for compliance.
- c) Determine any procedures that have not been reviewed within the required 2-year period. Determine loop calibration requirements and verify appropriate procedures are in place.
- d) Provide recommendations and manage the effort to correct any determined deficiencies.
- e) Identify PMCS and RMCS truck systems procedures and data sheets that could be transferred to inactive status.
- f) Review past calibration records (last three years) for Truck Systems #1, #3 and #4 to identify necessary modifications to calibration frequencies. If inadequacies are found, recommend process improvements.
- g) Identify calibrations that are not current for any active equipment.
- h) Review work packages for Trucks #3 and #4 calibrations in the spring of 1999. If any equipment was out of calibration, verify that any corrective steps taken were in accordance with procedure.
- i) Prepare and issue a letter report of the results of tasks "a" through "h" above.
- j) Prepare a draft desk instruction for review and approval that outlines the plan for post calibration evaluation of equipment performance.

3.3 Verification, Technical Reviews and Modification Management

No equipment modification will result from activities associated with this task. Some procedures and data sheets may be modified if they are found to contain deficiencies. Others may be transferred to inactive status if they are associated with inactive equipment. All procedure and data sheet revisions will be made in accordance with HNF-IP-0842, *Tank Waste Remediation System Administrative Procedures*, Vol. I, Administration, Section 2.11, Rev. 2a, Technical Procedure Control and Use [LMHC 1999]. Updated procedures and data sheets will be reviewed and/or approved by individuals identified in Section 4.0, or as otherwise designated by the Design Authority.

3.4 Software Development Tasks

There are no software development activities included in the scope of this task.

3.5 Procurement/Fabrication Tasks

There are no procurement or fabrication activities included in the scope of this task.

3.6 Installation/Removal Tasks

There are no installation or removal activities included in the scope of this task.

3.7 Pre-Operational and Operational Tests (Test and Evaluation)

There are no testing activities included in the scope of this task.

3.8 Acceptance for Beneficial Use (ABU)

There is no ABU preparation or revision associated with this task.

3.9 Risk Assessment

This task reviews and verifies the status of the calibrations and calibration documentation associated with specified equipment. Failure to complete the task would leave the status of the calibrations and the documentation as it is, without overview validation.

4.0 ORGANIZATION

The following organizations/individuals will provide support for revisions, review, and release of procedures and data sheets associated with this task.

Characterization Project Engineering

Manager - RM Boger
Project Manager - JL Smalley
Design Authority - GP Janicek
Responsible Engineer - FS Stong

Characterization Field Engineering

Cognizant Manager - JS Schofield
Cognizant Engineer - RN Dale

Characterization Project Operations

Truck Sampling - JS Lee
Technical Operations - JE Corbett

Characterization Support Organizations

Safety - JA Ranschau
Quality Assurance - JS Sparks
Environmental Ops Compliance - DL Dyekman
Nuclear Safety and Licensing - TG Goetz

5.0 SCHEDULE/COST ESTIMATE

Schedule

The estimated schedule for this task is shown in Appendix A. The evaluation of procedures and review of the most recent calibration work packages is expected to be complete by June 30, 1999. All tasks identified in this task plan are expected to be complete by July 31, 1999.

Cost Estimate

Cost estimates (shown in manhours) associated with this task are denoted in the following table.

SUBTASK	COGEMA	LHMC
Prepare, review, approve and issue ETP	60	20
Determine applicable procedures for task	40	20
List of instruments for calibration responsibility	60	10
Procedure compliance of Trucks 1, 3 and 4	120	--
Correct deficiencies and provide Recommendations	40	--
Identify inactive RMCS truck system procedures	20	--
Identify necessary calibration frequency modifications	50	--
Identify past-due calibrations for active equipment	20	20
Verify if out-of-calibration equipment were corrected per procedure	40	10
Prepare letter report of results of above items	30	10
Prepare draft desk instruction for post-calibration evaluation	40	20
TOTAL	520	110

6.0 CONFIGURATION MANAGEMENT

The following policies, practices and procedures will be used to govern configuration management during this task.

HNF-IP-0842	Tank Waste Remediation System (TWRS) Admin. Procedures
HNF-PRO-261	Quality Assurance Program Plans
HNF-PRO-440	Engineering Document Change Control Requirements
HNF-PRO-445	Design Verification Requirements

7.0 QUALITY ASSURANCE

Quality Assurance review of tasks will be determined on a task-by-task basis per *Review and Approval of Documents* [FDH 1997]. The cognizant engineer will assign approval designators for all documentation with concurrence from the cognizant manager. All documents assigned an approval designator "Q" shall be reviewed and approved by Quality Assurance.

8.0 SAFETY AND AUTHORIZATION BASIS

There are no modifications to the safety or authorization basis as a result of this task. Safety review will be determined on a task-by-task basis per *Review and Approval of Documents* [FDH 1997]. The cognizant engineer will assign approval designators for all documentation with concurrence from the cognizant manager. All documents assigned an approval designator "S" shall be reviewed and approved by Safety.

9.0 SYSTEM ENGINEERING

This task is identified in HNF-SP-1230, (Draft), [LMHC 1998c], and funded in WBS # 1.1.1.1.1.3.1.3, *Design Authority and Engineering Compliance*.

10.0 CLOSEOUT COSTS

Because of the limited scope of the task, should the funding be deleted, the closeout costs would be minimal.

11.0 REFERENCES

- DESH, 1999a, HNF-SD-WM-BIO-001, Rev. 1-C, *Tank Waste Remediation System Basis for Interim Operation*, Duke Engineering and Services Hanford, Richland, Washington.
- DESH, 1999b, HNF-SD-WM-TSR-006, *Tank Waste Remediation System Technical Safety Requirements, Addendum, Transitional Requirements*, Rev. 0-R, Duke Engineering and Services Hanford, Richland, Washington.
- FDH, 1997, HNF-PRO-233, Rev. 1, *Project Hanford Policy and Procedure System, Review and Approval of Documents*, Fluor Daniel Hanford, Inc., Richland, Washington.
- LHMC, 1998a, HNF-IP-0842, Vol. XI, Section 1.1, Rev. 0b, *Quality Assurance Program Plan*, Lockheed Martin Hanford Company, Richland, Washington.
- LHMC, 1998b, HNF-SD-WM-QAPP-025, Rev. 4, *Tank Waste Remediation System Characterization Project Quality Policies*, Lockheed Martin Hanford Company, Richland, Washington.
- LHMC, 1998c, HNF-SP-1230, (Draft), *Tank Waste Remediation System Fiscal Year 1999 Multi-Year Work Plan WBS 1.1.*, Lockheed Martin Hanford Company, Richland, Washington.
- LHMC, 1999, HNF-IP-0842, *Tank Waste Remediation System Administrative Procedures*, Vol. V, Maintenance/Production, Section 7.3, Rev. 3a, *Preventive Maintenance Program*, Lockheed Martin Hanford Company, Richland, Washington.
- Raymond, R.E., 1997, DI-CP-002-00, Rev. 1, *Engineering Test Plan*, Desk Instruction, Characterization Engineering Projects, Lockheed Martin Hanford Company, Richland, Washington.

APPENDIX A - SCHEDULE

DISTRIBUTION SHEET

[illegible]