

DOE/ET/10815--T74

MR-10815-178

**CONTRACT STATUS REPORT
FOR
MHD RESEARCH AND DEVELOPMENT
AND
OPERATION OF THE MHD
COAL FIRED FLOW FACILITY**

For The Month Ending

June 30, 1995

Work Performed Under Contract No. DE-AC02-79ET10815

**Prepared by
The University of Tennessee
Space Institute
Energy Conversion Research & Development Programs**

For

The United States Department of Energy

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PROJECT STATUS REPORT

1. **CONTRACT OBJECTIVE** - No change since last report.
2. **TECHNICAL APPROACH CHANGES** - None
3. **CONTRACT TASKS** - In this report, UTSI reports on the status/progress by program tasks identified in Chapter 3 (Work Plan) of the draft Contract Management Plan for the FY95 period, which was submitted to DOE February 17, 1995.

TASK I - CONTRACT MANAGEMENT AND CLOSEOUT

The 33rd Symposium on Engineering Aspects of Magnetohydrodynamics hosted by UTSI and ERC, Inc. was held June 12-15, 1995.

In response to a DOE/PETC letter of 5/23/95, work continued on the development of a contract proposal package for "UTSI/CFFF MHD Program Completion and Related Activity."

The contract status report for May 1995 was issued to DOE.

Personnel staffing for the month was 20.2 equivalent full-time (EFT) personnel versus a planned level of 26.3 EFT.

TASK II - FACILITY AND PROPERTY DISPOSITION

Facility activities this month were confined to the continuation of preventative maintenance and repairs required to maintain the Coal-Fired Flow Facility (CFFF) in a standby condition.

The reconditioning of the CFFF process water cooling tower continued. An interior protective polyurethane coating was applied on the bottom of each cooling tower quadrant.

Semi-annual maintenance on the fire protection system was initiated.

Control of government property and the maintenance of records were continuing.

TASK III - DATA REPORTING AND ARCHIVING

Preparation of topical reports pertaining to the MHD POC test program continued.

Measurements and evaluations of corrosion from superheater test module tube samples from test section 1 and 2 were completed and preparation of a topical report on the findings is underway.

All data and documentation developed thus far on the MHD/CFFF project and identified for archiving are continuing to be maintained for archiving storage.

TASK IV - SITE ENVIRONMENTAL COMPLIANCE AND REMEDIATION

Under a subcontract for the first round of groundwater samples which will be used as a screening technique to verify what parameters must be analyzed in the other six wells that will be installed. This technique will save funds by eliminating all groundwater pollutants except those detected above drinking water standards.

Groundwater compliance monitoring work has basically come to a halt due to severe funding limitations.

Monitoring of the holding pond effluent continued in order to comply with the UTSI water discharge permit. Water is checked for pH, temperature, flow rate, oil and grease content, total dissolved solids, and total suspended solids. All parameters continue to be measured by the UTSI chemistry lab. Any changes in CFFF operation might require monitoring of additional parameters.

4. OPEN ITEMS

A. DOE: The following reports/documents were in DOE review for comments and/or approval as of June 30, 1995.

FY1995 Management Plan

UTSI ltr 02/17/95

B. UTSI: The following actions were in process or preparation as of June 30, 1995.

Superheater/Air Heater Tube Corrosion Studies

Est. Completion 09/30/95

NO_x Formation and Control, Topical Report

Est. Completion 07/30/95

Western Coal Processing System, Topical Report

Est. Completion 07/30/95

Western Coal 1,000 Hr POC & Final Summary Report

Est. Completion 07/30/95

5. SUMMARY STATUS ASSESSMENT AND FORECAST

The CFFF continues in standby condition as preventive maintenance and repairs are accomplished as needed.

Efforts on the preparation of topical reports continued. Work has been extended on these reports due to limited manpower resources available.

[illegible]

MS-0067

MILESTONE LOG

I.D. NO.	DESCRIPTION	ACTUAL COMPLETION DATE	PLANNED COMPLETION DATE	EXPECTED COMPLETION DATE	COMMENTS
	TASK I - CONTRACT MANAGEMENT & CLOSE OUT				
I A	Issue Management Plan for FY95	Feb 95	Feb 95		Completed
I B	Issue Monthly Reports	Apr 95	As Indicated		Completed April '95 report
I C	Issue Quarterly Reports	Apr 95	As Indicated		Completed Jan-Mar 95 report
	TASK II - FACILITY & PROPERTY DISPOSITION				
II A	Semi-Annual Government-Owned Property Report	Oct 94	Oct 94		Completed
II B	Complete all Engineering Drawings	Dec 94	Dec 94		All drawings completed/updated
II C	Annual Government Property Inventory	Dec 94	Dec 94		Completed
	TASK III - DATA REPORTING & ARCHIVING				
III A	Identify Data for Archiving	Nov 94	Nov 94		Completed
III B	Prepare data/documentation for archiving	Feb 95	Feb 95		Completed
III C	Issue Superheater/Air Heater Tube Corrosion Studies		Mar 95	Sep 95	
III D	Issue Topical Report - Western Coal Processing System		Apr 95	Jul 95	Limited resources
III E	Issue Topical Report - NO _x /SO _x Formation & Control		Apr 95	Jul 95	Limited resources
III F	Issue Western Coal 1000 Hr POC & Final Program Summary Report		May 95	Jul 95	Limited resources
	TASK IV - SITE ENVIRONMENTAL COMPLIANCE & REMEDIATION				
IV A	Complete Removal of Asbestos in the CFFF Cooling Tower	Feb 95	Mar 95		Completed
IV B	Install additional groundwater wells for monitoring		May 95	Jul 95	Postponed due to analytical screening
IV C	Issue Monthly Water Discharge Monitoring Reports		As Indicated		

FORM DOE 533M
(1/78)

PRELIMINARY

1. Contract Identification		2. Reporting Period		3. Contract Number	
Operation of the MHD Coal-Fired Flow Facility		June 1 through June 30, 1995		DE-AC02-79ET10815	
4. Contractor (Name and Address)		5. Cost Plan Date		6. Contract Start Date	
The University of Tennessee Space Institute B. H. Goethert Parkway Tullahoma, Tennessee 37388-8897		February 1995		October 1, 1978	
8. Government Funding		12. Number of Invoices Paid		13. Total Invoice Amounts Billed	
\$105,842,540.00		N/A		\$105,524,827.79	
15. Identification Number		16. Reporting Category (e.g. contract line item or work breakdown structure element)		17. Accrued Cost	
				Cash Basis**	
		During Reporting Period		Cumulative to Date	
		a. Actual	b. Planned	c. Actual	d. Planned
	DIRECT LABOR	116,124.77	110	54,087,528.87	54,167
	FRINGE BENEFITS	26,610.52	26	10,768,708.89	10,791
	EQUIPMENT	175.00	0	6,038,121.54	6,038
	EXPENDABLE MATERIAL	6,924.41	6	9,589,968.32	9,710
	OUTSIDE CONTRACTS	28,457.99	8	7,446,295.74	7,484
	TRAVEL	270.00	1	1,018,734.94	1,023
	COMPUTER USAGE	212.26	0	2,127,940.87	2,129
	TOTAL DIRECT COSTS	178,774.95	151	91,077,299.17	91,342
	OVERHEAD *	29,771.99	26	14,447,528.62	14,494
	GRAND TOTAL	208,546.94	177	105,524,827.79	105,836
B&R	AA701030	0	0	65,787,381.00	65,787
B&R	AA701035	0	0	516,868.00	517
B&R	AA701010	0	0	9,187,000.00	9,187
B&R	AA701020	0	0	179,000.00	179
B&R	AA7010105	0	0	26,425,000.00	26,425
B&R	AA7010251	0	0	2,000,000.00	2,000
B&R	AW01	0	0	65,000.00	65
B&R	AW02	0	0	195,000.00	195
B&R	AW05	208,546.94	177	1,169,578.79	1,481
23. REMARKS:					
* Overhead rate effective 7/1/94 is 18% of TDC less capital equipment, outside contracts over \$25,000, and GRA maintenance fees.					
** Actual costs are on cash basis and do not include outstanding costs listed in column 21.					
*** Includes orders outstanding costs listed in column 21.					
25. Signature of Contractor's Project Manager and Date					
26. Signature of Contractor's Authorized Financial Representative & Date					
27. Signature of Government Technical Representative and Date					
24. Dollars Expressed In: THOUSANDS					

THIS IS A PRELIMINARY REPORT PENDING FINAL CERTIFICATION OF COSTS BY THE CONTROLLER'S OFFICE FOR THE UNIVERSITY'S ACCOUNTING YEAR ENDING JUNE 30, 1995.

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