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BATTELLE-NORTHWEST

RICHLAND, WASHINGTON

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TITLE AND AUTHOR

TECHNICAL SERVICES - - - TESTING OF NASA FUEL ELEMENTS
FOR BATTELLE COLUMBUS

D. C. Worlton

Instruments Research and Development Section
PHYSICS & INSTRUMENTS SECTION

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DECLASSIFIEDBy Authority of SP-20DS 2-11-94 December 3, 1965By Jessi Miley 2-15-94Verified By J. E. Sibley 2-22-94

Mr. Paul J. Gripshover
 Battelle Memorial Institute
 Department of Materials Engineering
 505 King Avenue
 Columbus, Ohio 43201

Dear Paul:

Estimate for Technical Services -
Testing of Fuel Elements

We are pleased to enclose copies of the Work Statement and Cost Estimate as a subproject to your program to nondestructively inspect the fuels on your NASA-Lewis contract. This confirms our telephone call and teletype of November 19, 1965 from Mr. Chockie to you. As we understand, the duration of this agreement should extend over the next six or nine months and will probably include the inspection of one or two fuel elements singly; later on, three batches of five elements. Accordingly we recommend that the program be established for a period of nine (9) months with an appropriation of \$10,430, including the fixed fee of \$660. The attached Estimated Costs sheets show estimated costs for inspection of one fuel element at one time and five fuel elements at one time. This estimate is on a CPFF best effort basis calling for the application of tests developed on our present NASA-Lewis program. No additional development costs are included in this program. Shipping of fuel elements between Columbus and Northwest to be prepaid by Columbus.

This program is proposed pursuant to Use Permit Contract AT (45-1)-1831 under which Battelle-Northwest may conduct this program as a private activity, subject to the terms set forth on the attached "Information for Preparation of Government Contracts." Should receipt of our AEC radioactive materials handling license, which is presently under negotiation, be delayed beyond the required starting date for this program, the program may be established under our Operating Contract AT (45-1)-1830 by interagency transfer of funds from NASA to the AEC Richland Operations Office.

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Mr. Paul J. Gripshover

-2-

December 3, 1965

If you have any technical questions, please refer these directly to Mr. Jack Spanner or Mr. Donald C. Worlton. Contractual matters may be referred to Mr. Bruce Jones.

We sincerely appreciate this sort of cooperation between the two laboratories.

Sincerely yours,

ORIGINAL SIGNED BY

S. L. Fawcett

S. L. Fawcett

Director

SLF:vw

encl.

cc: J.C. Spanner
D.C. Worlton
L.J. Chockie
R.S. Paul
Legal (Contracts)
F.W. VanWormer
Central Files - 7450
Columbus: P.H. Watson

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1000-55-112
December 1, 1965

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The nondestructive testing (NDT) (Nuclear Center) that
the tests will be performed in accordance with procedures and tests
developed under INCO (NRO) contract number 65-1125, Code 8-1314-4,
"Non-Destructive Testing of the _____ (10576)." "

Special tests will be performed as follows:

- Fuel Loading
- Integrity and Condition
- Fuel Bonding and
- Dimensional Data

Tests to be used include, but are not limited to, ultrasonic, and nuclear
methods. In some cases, (if available) all three
methods will be used and compared with the results of the results.

It should be noted that the _____ under development
and since the fuel design has not been completed and no samples or
data are yet available. _____ to be conducted and
the engineering test performance _____ described in any detail.
The checking thickness test, _____ been started and useful
application will be dependent on the _____ samples for testing
and the success of the development. _____ of the tests available will be
used for inspection and comparison _____ provided after testing and
analysis of the results.

 

... ..

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50-10-1111

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DTIC-66-502

1. Total Manpower

2. Total Manpower

Including our predetermined salary schedule, holiday, and sick-leave pay, pension insurance, and social security, etc.

<u>Category of Employees</u>	<u>Estimated Cost</u>
Engineers	nominal
Research Engineers	
Junior Scientists	\$170
Engineering Assistants	\$220
Other, i.e., Shop, Photo-metallurgy, Photo, Steno, etc.	nominal

Total Manpower Cost \$ 390

3. Total Manpower

Cost of salaries and wages, including the above, including 6.3% total cost reimbursement and 10% overhead

\$ 390

Total Manpower Cost \$ 390

Total Manpower \$ 60

Contract Labor \$ 380

Please let us have your response to our terms by March 31, 1966. Unless we extend the time, your response after that date will be subject to agreement.

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Proposal of Battelle-Northwest	Battelle-Columbus (Environmental Research)
---------------------------------------	---

For research on: Hydrolytic stability of polyurethanes

Final report to be submitted on a calendar period of 9 months
including time for submission of a final report

1. The first step is to identify the problem. This involves understanding the current situation and what needs to be changed.

It is expected that the cost of the project for the period indicated above may be distributed approximately as shown in the North Harbor, subject to the understanding that this estimate is not intended as a guarantee, and actual costs incurred may vary from the percentages shown. These percentages are reasonable and conform with North Harbor-Northwest's established policies.

TRAINING, SUPPLIES AND PERSONNEL

Including purchase orders and any other items which may be purchased as necessary in the performance of the contract. Miscellaneous includes such items as postage, telephone, telegraph, freight, car fare, etc.

§ 2012-1

[illegible]

includes actual use of Battelle's own and its own specialized technical equipment at a rate based on a cost share item of equipment. This rate includes depreciation, maintenance, utilities and other charges necessary to the operation of the equipment.

§ 650

TELEPHONE AND OTHER DIRECT SERVICE

§ normal

[illegible]

Includes the actual cost of transport at air and reasonable actual substantiated expenses determined in accordance with Battelle's standard procedures for Government research. An allowance of eight (8) cents per mile for necessary travel by privately-owned conveyance is included in lieu of the cost of such travel.

§ 100.100

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HR71-00-900

Three Full Elements

2-

Estimated Costs

Including our predetermined salary scale, vacation, holiday, and sick-leave pay, pension insurance, life insurance, security, etc.

<u>Element</u>	<u>Estimated Cost</u>
Supervisor	nominal
Research Engineers	
and/or Scientists	\$350
Engineering Assistants	\$200
Other, i.e., Shop, Radio-mechanics, Photo, Steno, etc.	nominal

Total Annual Wages

\$ 1,250

Summary

65% of salaries and wages, as shown above, including 67.3% AEC full cost reimbursement.

\$ 812.50

Total Annual Cost

\$ 1,862.50

Total

\$ 100

Cost of Work

\$ 3,125.00

Please let us have your acceptance of our terms by March 31, 1966. Unless we extend the time, your acceptance after that date will be subject to agreement.

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10 / 24 / 94

END