INTERAGENCY AGREEMENT N0. NRC -03-91-031

TECHNICAL ASSISTANCE FOR THE EVALUATION OF FIRE BARRIER PERFORMANCE

A Technical Research Proposal to

U.S. Nuclear Regulatory Commission (NRC)

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September 19, 1991

REVIEW AND COORDINATION PROCEDURES

The primary NIST contact for arrangement of meetings:

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NIST
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(301) 963-4730

RESUMES OF NIST STAFF

Resumes of the above staff are attached to this proposal. The NIST staff who will perform the chemical analysis have not yet been identified. When they are, their resumes will be submitted to the NRC Project Officer for approval. Should it become necessary to assign other NIST staff or consultants to the project their resumes will also be submitted to the NRC Project Officer for approval.

COST PROPOSAL FOR PHASE I

I. Direct Staff Effort - 2000 hours

II.	Direct Salaries	$68,060
	Materials & Services (Chemical Analysis)*	$13,600
	ADP Support	0
	Subcontracts	0
	Travel	$18,000
	Indirect Labor Costs (39% Direct Salaries)	$26,530
	General & Administrative Expense (90.8% of Direct & Indirect Labor costs)	$85,900
		$212,900

INTRODUCTION

This technical proposal is submitted in response to a request from the Nuclear Regulatory Commission for a proposal from the National Institute for Standards and Technology entitled "Technical Assistance for the Evaluation of Fire Barrier Performance".

OBJECTIVE

The objective of this project is to provide technical expertise in support of NRC staff in the review and evaluation of technical issues related to fire barrier systems.

STAFF ASSIGNMENTS

The following NIST staff will be assigned to the project (other than the project leader, on an as needed basis):

Vytenis Babrauskas	- Fire Protection Engineer (Technical Project Leader)
Andrew Fowell	- Supervisory Mechanical Engineer (Project Manager)
King-Mon-Tu	- Mechanical Engineer
Kenneth Steckler	- Physicist
Richard Bukowski	- Electrical Engineer
Barbara Levin	- Toxicologist
Richard Zile	- Supervisory Engineering Technician

STATEMENT OF WORK

The Statement of Work is attached to this proposal.

ANTICIPATED MAJOR DIFFICULTIES AND PROBLEM AREAS

No major problem areas are anticipated. Any major problem areas that may arise during the course of the project will be reported to the NRC Project Officer by telephone and in the Monthly Business Letter Report.

INTERPRETATIONS, REQUIREMENTS AND ASSUMPTIONS

The tasks are assumed to be sequential, and that scheduled completion dates are from the initiation of work on that task. It is assumed that NRC review of draft reports will not place undue delays on the schedule, and that any necessary visits to nuclear power plants and all meetings between NRC and NIST staff can be arranged without undue delays. Any NIST reports will be subject to NIST internal technical and policy review before being submitted to NRC.

*This item will be performed by the Inorganic Analytical Research Division of the NIST Chemical Science and Technology Laboratory, and in financial reports these costs may be broken down into labor and materials.

FINANCIAL STATUS REPORT

Monthly financial status will be provided by the Office of the Comptroller at NIST in the format shown in Attachment II.

Attachments

STATEMENT OF WORK

TECHNICAL ASSISTANCE FOR THE EVALUATION OF FIRE BARRIER PERFORMANCE

Article I - Scope of Work

BACKGROUND

Section 50.48, "Fire Protection," of 10 CFR Part 50 requires that each operating nuclear power plant have a fire protection plan that satisfies General Design Criterion 3 of Appendix A to 10 CFR Part 50. Section 50.48 also requires that all plants with operating licenses issued prior to January 1, 1979 satisfy the fire protection of safe shutdown capability requirements of Appendix R to 10 CFR Part 50. By a separate action, the Commission subsequently required all plants who receive their operating license after January 1, 1979 to satisfy the safe shutdown capability requirements of Appendix R.

Section III.G of Appendix R, which addresses fire protection of safe shutdown capability, requires that fire protection features be provided such that one train of systems necessary to achieve shutdown conditions remains free of fire damage. One acceptable means of satisfying this requirement is to separate cables and equipment and associated non-safety circuits of redundant systems necessary to achieve and maintain shutdown conditions by a fire barrier having a 3-hour fire rating (Section III.G.2.a) Another means is to enclose cables and equipment and associated non-safety circuits of one redundant train in a fire barrier having a 1 hour fire rating and install fire detectors and an automatic fire suppression system in the fire area (Section III.G.2.c).

The U.S. Nuclear Regulatory Commission requires technical assistance for evaluating the fire endurance effectiveness of certain fire barrier systems intended to satisfy the fire protection of safe shutdown capability requirements of Appendix R to 10 CFR Part 50.

OBJECTIVE

The objective of this project is to obtain specialized technical expertise from the National Institute of Standards and Technology (NIST), Building and Fire Research Laboratory (BFRL), to support the NRC staff in the review and evaluation of technical issues related to fire barrier systems. The technical assistance provided pursuant to this project will possibly be utilized in subsequent enforcement actions taken in connection with this matter.

TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

Key Personnel

It is the responsibility of NIST to assign technical staff, employees, subcontractors, or consultants who have the required educational background, experience, or combination thereof to meet both the technical and regulatory objectives of the work specified in this statement of work. The NRC will rely on representations made by NIST concerning the qualifications of the personnel assigned to this project, including assurance that all information contained in the technical and cost proposals, including resumes,

is accurate and truthful. The use of subcontractors or consultants on this project requires the NRC Project Officer's written approval prior to their use.

Qualifications

Specialists in chemistry, toxicology, fire protection engineering, and electrical engineering will be required to satisfy the project objectives. Specifically, technical experts with specialized expertise in toxicology of products of combustion; fire resistive barrier materials (particularly refractory and subliming materials), fire barrier design, and fire barrier construction; flame spread and fire endurance test methods, including the design and conduct of tests and the analysis of fire test results (with emphasis on ASTM E-84, ASTM E-119, and NFPA 251); nuclear power plant electrical cable installations (cable tray and conduit systems); and cable performance, particularly with respect to power cable ampacity derating, are required.

Conflict of Interest and Prior Involvement Considerations

NIST shall provide resumes for all personnel (NIST staff, consultants, or subcontractor staff) proposed for assignment to this project for NRC review. Each resume shall identify the individual's current and prior involvement with projects involving the commercial nuclear power industry. If the individual does not have a work history involving the nuclear power industry, a negative statement shall be provided.

In addition, NIST shall identify any significant contractual or organizational relationships with NRC regulated industries that might give rise to an apparent or actual organizational conflict of interest with respect to the work specified in this statement of work. This information shall also be provided for any subcontractor or consultant proposed for use on this project by NIST.

WORK REQUIREMENTS AND SCHEDULE

BACKGROUND STUDIES AND TEST PROGRAM DESIGN

Task 1 Review NRC Requirements and Guidance Documents

Scheduled completion: Two weeks after initiation of work.

For purposes of background and perspective, NIST shall review NRC requirements and guidance for fire protection of safe shutdown capability as embodied in 10 CFR Part 50, the Standard Review Plan, Branch Technical Positions, NRC Generic Letters, NRC Information Notices, fire test standards, NRC acceptance criteria and other information and documents provided by the NRC Project Officer.

Task 2 Review Technical Documentation

Scheduled completion: Three months after the initiation of work.

Subtask A Review Technical Documentation

NIST shall review manufacturer's literature; technical reports and documentation on fire barrier materials, fire barrier design, and fire barrier installation; fire test reports, ampacity derating test reports; NRC Safety Evaluation Reports (SERs); and other technical

information and documentation related to the fire barrier system that is the subject of this project. The type and level of review to be performed will be provided by the NRC Project Officer.

Subtask B Meet with NRC

Following the review of the aforementioned materials, NIST shall meet with the NRC Project Officer to discuss the results of the review.

Subtask C Prepare Draft Letter Report

Following the meeting, NIST shall submit a draft technical letter report to the NRC Project Officer that documents the results of the review for NRC review and comment.

Subtask D Prepare Final Letter Report

Following receipt of NRC comments on the draft letter report from the NRC Project Officer, NIST shall incorporate the comments and submit a final letter report to the NRC Project Officer.

Task 3 Perform Chemical Analyses of Fire Barrier Materials

Scheduled completion: Three weeks after initiation of work.

NIST shall perform chemical analyses on the fire barrier materials that are the subject of this project. The principal objectives of the analyses are to: (1) determine the chemical composition of the materials, (2) determine whether or not the actual chemical composition matches the patented formulation, (3) determine the effectiveness of the refractory mix design, (4) determine the effects of curing time on product performance, (5) determine whether or not there are any shelf-life concerns associated with the various products, and (6) determine whether or not there are potential health hazards associated with the materials. All materials to be analyzed will be provided to NIST by NRC.

Subtask A Meet with NRC

Prior to performing the chemical analyses, NIST shall meet with the NRC Project Officer to discuss the specific analyses to be performed.

Subtask B Perform Chemical Analyses

Following receipt of the NRC Project Officer's acceptance of the analyses to be performed, NIST shall perform the analyses.

Subtask C Meet with NRC

Following the completion of the chemical analyses, NIST shall meet with the NRC Project Officer to discuss the results of the analyses.

Subtask D Prepare Draft Report

Following the completion of Subtask C, NIST shall submit a draft technical report to the NRC Project Officer that documents the results of the chemical analyses for NRC review and comment.

Subtask E Prepare Final Report

Following receipt of NRC comments on the draft report from the NRC Project Officer, NIST shall incorporate the comments and submit a final report to the NRC Project Officer.

Task 4 Develop Technical Input to Testing Options

Scheduled completion: Three weeks after the initiation of work.

Subtask A Develop Technical Input

NIST shall provide technical input to the development of proposed testing options, including the development of the objectives of the tests. Consideration shall be given to generic technical issues associated with the tests as well as specific issues associated with each identified testing option. Consideration shall also be given to the need to perform fire endurance tests, ampacity tests, and toxicity tests to assess the performance of the fire barrier systems that are the subject of this project.

The range of testing options currently being considered by the NRC include the following:

(1) No fire tests
(2) Small scale pilot tests
(3) Confirmatory fire tests
(4) Original fire tests

For each identified testing option, NIST shall provide technical assistance in identifying and resolving the technical issues associated with the option, the advantages of the option, and the disadvantages of the option. NIST shall consider, and report on, the feasibility of conducting small scale pilot fire tests prior to large scale tests. The technical input prepared by NIST under this task will be considered by NRC in deciding which testing option(s) to implement.

In the event the NRC determines that it is necessary to visit nuclear power plant sites to satisfy the objectives of this task, the NRC Project Officer will notify NIST. NIST shall then participate in the site visits as specified under Task 6, below.

The NRC Project Officer will provide information on technical issues, advantages, and disadvantages currently being considered by NRC to NIST.

Subtask B Meet with NRC

During the course of Subtask A and prior to submitting the draft report specified under Subtask C, NIST shall meet with the NRC Project Officer to discuss the testing options.

Subtask C Prepare Draft Report

Following the completion of Subtask B, NIST shall submit a draft report to the NRC Project Officer that describes proposed testing options, including consideration of technical issues, testing advantages, and testing disadvantages for NRC review and comment.

Subtask D Prepare Final Report

Following receipt of NRC comments on the draft report from the NRC Project Officer, NIST shall incorporate the comments and submit a final report to the NRC Project Officer.

Task 5 Test Program Design

Scheduled completion: Four weeks after NRC notification of which testing options (Task 4) to implement.

Subtask A Design Test Program

Following receipt of the final report delivered under Task 4, NRC will decide which testing option(s) to implement. The NRC Project Officer will notify NIST of the NRC's decision. Following notification, NIST shall design a detailed test program for implementing each of the selected options for NRC consideration. As a minimum, the proposed test program shall address the types and numbers of tests to be conducted; the test method(s)/standard(s) to be followed; the details of the test assemblies (including sizes, configurations, construction, and preparation); skills and qualifications required of the installers; the equipment and facilities, and the schedules (in terms of time frames) required to conduct the tests.

The test program shall include test acceptance criteria (pass/fail) defined by NRC.

In the event the NRC determines that it is necessary to visit nuclear power plant sites to satisfy the objectives of this task, The NRC Project Officer will notify NIST. NIST shall then participate in the site visits as specified under Task 6, below.

Subtask B Meet with NRC

During the course of Subtask A and prior to submitting the draft report, NIST shall meet with the NRC Project Officer to discuss the design of the test program.

Subtask C Prepare Draft Report

Following the completion of Subtask B, NIST shall submit a draft report to the NRC Project Officer that describes the proposed test program for NRC review and comment.

Subtask D Prepare Final Report

Following receipt of NRC comments on the draft report from the NRC Project Officer, NIST shall incorporate the NRC comments and submit a final report to the NRC Project Officer.

Task 6 Examine In-Plant Conditions (OPTIONAL)

Scheduled completion: As scheduled by NRC Project Officer.

Subtask A Plant Visits

When required in connection with the performance of Task 4 or Task 5, as determined by NRC, NIST shall travel with NRC representatives to domestic commercial nuclear power reactors to review in-field installations of fire barriers. The principal objectives of the plant site visits are to review plant configurations and identify fire barrier design and installation elements that are important to the design of a fire testing program.

Up to five plant site visits may be required.

Subtask B Meet with NRC

At the conclusion of each plant site visit, NIST shall meet with the NRC Project Officer to discuss significant observations and findings.

Subtask C Prepare Trip (Letter) Report

At the conclusion of each plant site visit, NIST shall submit a brief trip (letter) report to the NRC Project Officer that documents the results of the visit.

Task 7 Identify Independent Testing Laboratory Candidates

Scheduled completion: Subtask A, one week after initiation of work. Remainder of Task 7, three weeks after completion of Task 5.

Subtask A Provide List of Testing Laboratories

The NRC Project Officer will review potential conflict of interest and prior involvement concerns associated with each testing laboratory prior to any NIST contact with any laboratory and prior to NIST performing any detailed assessments of any laboratories. Therefore, NIST shall provide a list of testing laboratories that NRC should consider for detailed assessment to the NRC Project Officer. Following receipt of the list, the NRC Project Officer will inform NIST of which of the identified laboratories should be assessed by NIST under Subtask B, below.

Subtask B Assess Capabilities and Availability of Testing Laboratories

Following receipt of the list of approved laboratories from the NRC Project Officer, NIST shall assess the capabilities of laboratories for conducting the test program. As a minimum, consideration shall be given to suitability of equipment and facilities, qualification of staff, demonstrated experience with nationally recognized test standards, and availability to perform the required tests.

NIST shall also assess each independent testing laboratory's suitability for conducting ampacity derating tests and toxicity tests.

In the event field visits are required to assess laboratory facilities and qualifications, the NRC Project Officer and other NRC representatives may accompany the NIST staff to the facility. Therefore, NIST shall coordinate any proposed visits to the laboratories in advance with the NRC Project Officer.

NRC will process the contract with the testing laboratory selected to conduct the tests.

Subtask C Meet with NRC

Following assessment of the testing laboratories, NIST shall meet with the NRC Project Officer and other NRC representatives to discuss the results of the assessments.

Subtask D Prepare Letter Report

At the conclusion of Subtask C, NIST shall submit a letter report to the NRC Project Officer that documents the assessments of the testing laboratories examined. The report shall include a recommendation for three or more laboratories with the facilities, qualifications, and availability required to carry out the test program.

Task 8 Instruction and Training of NRC Staff and Testing Laboratory Staff

Scheduled Completion Six weeks after selection of testing laboratory

Subtask A Staff Training for Fire Tests

Following the selection of a laboratory to conduct the large scale fire tests by the NRC Project Officer, NIST shall provide special instruction and training for NRC staff and staff of the selected laboratory for conducting the fire test program defined under Task 5. NRC staff may include additional representatives selected by the NRC Project Officer.

The NRC Project Officer and other NRC representatives will accompany the NIST staff to the selected testing facility. NIST staff shall coordinate any visits to the laboratory in advance with the NRC Project Officer.

Instruction and training shall include sample preparation and handling, instrument calibration and positioning, data acquisition, laboratory conditions such as ventilation, and

the sequence and timing of tasks in the performance of the tests, and other factors that could influence the results of the test.

Subtask B Meet with NRC

Following the visit to the testing laboratory NIST shall meet with the NRC Project Officer and other NRC representatives to discuss the results of the instruction and training. If NRC has sufficient confidence that the laboratory can perform the fire test accurately under NRC supervision it will proceed with the test program, otherwise NRC and NIST will discuss any further action by NIST staff to ensure accurate tests.

Subtask C Prepare Letter Report

At the conclusion of Subtask B, NIST shall submit a letter report to the NRC Project Officer that documents the instruction and training of the laboratory staff. The report shall include detailed recommendations to the NRC staff on factors that might influence the results of the test.

Subtask D Staff Training for Ampacity Tests

Following the selection of a laboratory to conduct the ampacity tests by the NRC Project Officer, NIST shall provide special instruction and training for NRC staff and staff of the selected laboratory for conducting the ampacity test program defined under Task 5. NRC staff may include additional representatives selected by the NRC Project Officer.

The NRC Project Officer and other NRC representatives will accompany the NIST staff to the selected testing facility. NIST staff shall coordinate any visits to the laboratory in advance with the NRC Project Officer.

Instruction and training shall include sample preparation and handling, instrument calibration and positioning, data acquisition, laboratory conditions such as ventilation, and the sequence and timing of tasks in the performance of the tests, and other factors that could influence the results of the test.

Subtask E Meet with NRC

Following the visit to the testing laboratory NIST shall meet with the NRC Project Officer and other NRC representatives to discuss the results of the instruction and training. If NRC has sufficient confidence that the laboratory can perform the ampacity test accurately under NRC supervision it will proceed with the test program, otherwise NRC and NIST will discuss any further action by NIST staff to ensure accurate tests.

Subtask F Prepare Letter Report

At the conclusion of Subtask E, NIST shall submit a letter report to the NRC Project Officer that documents the instruction and training of the laboratory staff. The report

shall include detailed recommendations to the NRC staff on factors that might influence the results of the test.

Task 9 Conduct Toxicity Tests

Scheduled Completion Four months after initiation of work

Subtask A Conduct Tests

NIST shall conduct the toxicity tests identified in the test program developed under Task 5 on up to four materials used in cable tray fire barriers. The material samples will be supplied by the NRC Project Officer.

NRC representatives may witness the tests. Therefore, NIST shall coordinate the schedule of the tests with the NRC Project Officer.

Subtask B Meet with NRC

Following the completion of the toxicity tests and the analysis of the test results, NIST shall meet with the NRC Project Officer to discuss the results of the tests.

Subtask C Prepare Draft Report

Following the meeting, NIST shall submit a draft technical report to the NRC Project Officer that documents the results of the toxicity tests for NRC review and comment.

Subtask D Prepare Final Report

Following receipt of NRC comments on the draft report from the NRC Project Officer, NIST shall incorporate the NRC comments and submit a final report.

MEETINGS AND TRAVEL

For planning purposes, the following meeting and travel requirements should be assumed:

Up to twenty two person, one day trips to NRC Headquarters, Rockville, Maryland for technical meetings. (Alternatively, NRC staff will travel to NIST facilities for some of the meetings.)

One, two-person, four day trip to a commercial nuclear reactor facility in each of the five NRC regions or to an NRC regional office.

Five, two-person, three day trips to nationally recognized, independent testing laboratories to assess capabilities and availability.

Two, two-person, five day trips to the selected testing laboratories to complete activities related to the training of testing laboratory personnel to carry out the test program.

NIST shall coordinate all meeting and travel arrangements with the NRC Project Officer.

APPLICABLE SPECIAL PROVISIONS

Control of Documents and Information

In connection with the performance of work under this project, the NRC may furnish for NIST review, evaluation, or other use, proprietary and sensitive information, materials, documents and other data. All such information, materials, documents, and other data furnished to NIST in the performance of this project shall be used only in connection with the work under project. Upon completion or termination of this project, NIST shall transmit all records or other information, documents and materials and any copies thereof, furnished by the NRC in the performance of this work to the NRC Project Officer.

Certain materials, documents, and reports provided to NIST during the course of this evaluation may be classified as evidence to be utilized in future NRC/Department of Justice enforcement actions. NIST shall protect these designated items per certain evidentiary procedures to be provided by the NRC Project Officer, except when disclosure is required by the Freedom of Information Act.

All parties conducting activities under this project shall be responsible for safeguarding from unauthorized disclosure any information or other documents and materials made available in connection with the performance of work or generated in the performance of this work. NIST agrees to conform to all regulations, requirements, and directions of NRC with respect to such material, except when disclosure is required under the Freedom of Information Act.

Except as otherwise authorized in writing by the NRC Project Officer, NIST shall insert provisions similar to the foregoing in all subcontracts and purchase orders issued under this project.

Publication of Results in Open Literature

NIST may at its own expense, publish in the open scientific literature any scientific results and special test protocol that it considers helpful to the advance of fire science or special measurement techniques. However, no publication of this work shall include any reference to specific installations, product manufactures or brand names, or NRC concerns, actions, or positions. Further, NIST shall submit a draft of any proposed publication to the NRC Project Officer for NRC review and comment prior to its submittal by NIST for publication.

License Fee Recovery

The work to be performed under this project is not license fee recoverable.

PROPERTY MANAGEMENT

Utilization

It is not expected that NIST will be required to purchase any equipment, including computer hardware or software, to perform the work contemplated under this statement of work. In the event property or equipment is required, NIST shall obtain the NRC Contracting Officer's written approval prior to purchasing any property or equipment with NRC funds.

Reports

In the event property or equipment is purchased with NRC funds, prior to the closeout of this project, a reconciliation report shall be prepared by NIST to identify available property and equipment purchased with NRC funds. The report shall contain the property description or nomenclature, manufacturer, model number, serial number, quantity, acquisition cost, receipt date, condition code, and NIST property identification number. Any property requiring special handling for security, health, safety, or other reasons shall be noted as part of the report. This report shall be submitted as soon as possible after a project completion or termination decision has been made, but not later than 60 days after the completion or termination date. The report shall be submitted to the NRC Contracting Officer with a copy to the NRC Project Officer.

If no property is assigned to the project, NIST shall provide a negative report.

NRC FURNISHED MATERIALS

The NRC Project Officer will provide the following materials to the NIST Principal Investigator.

NRC requirements and guidance for fire protection of safe shutdown capability as embodied in 10 CFR Part 50, Branch Technical Positions and the Standard Review Plan, relevant NRC Generic Letters, NRC Information Notices, NRC acceptance criteria and other NRC information and documents.

Manufacturer's literature; technical reports and documentation on fire barrier materials, fire barrier design, and fire barrier installation; fire barrier fire test reports, ampacity derating test reports; NRC Safety Evaluation Reports (SERs); and other technical information and documentation specifically related to the fire barrier system that is the subject of this project.

Any materials to be subjected to fire and other testing.

Article II - Deliverables

Technical Reports

The specific technical reports to be delivered by NIST under this agreement are specified and identified under the "Work Requirements and Schedule" section of Article I - Scope of Work, above.

The project Financial Identification Number (FIN) shall be identified on each transmittal letter and the cover page of each technical report delivered under this project. All correspondence and deliverable (draft and final versions) shall have the following marking: "LIMITED DISTRIBUTION."

NIST shall deliver all trip reports, letter reports, technical reports, and other deliverables specified under the work requirements section of this statement of work to the NRC Project Officer, in ten copies, for distribution within the NRC. NIST shall also deliver a copy of the transmittal letters for each of the final deliverables to the NRC Contracting Officer.

Monthly Business Letter Reports

NIST shall prepare a monthly business letter report (MBLR) that contains the information specified in Attachment 1, Monthly Business Letter Reporting Requirements, which is attached hereto and made a part thereof. Each MBLR shall have the following marking: "LIMITED DISTRIBUTION," and shall be delivered by the fifteenth of each month.

Article III- Level of Effort and Period of Performance

The estimated level of effort is 55 professional staff weeks.

The period of performance of this agreement shall be from September 25, 1991 through September 30, 1992. The Scope of Work as set forth in Article I - Scope of Work above, and period of performance may be increased as mutually agreed to by both parties by the NRC Contracting Officer's issuance of a modification to this agreement.

Article IV- Payment

Payment shall be made on a reimbursable basis. NIST shall submit invoices in accordance with Attachment 2, Billing Instructions for NRC/NIST Interagency Agreement, which is attached hereto and made part thereof. Each invoice shall cite the following data:

Appropriation No.: 31X0200.1
B&R No.: 120-19-15-02-0
FIN: L-2063
Interagency Agreement No.: NRC-03-91-31

Article VI - Estimated Amount

The total estimated amount of this agreement for performance of work is $200,960.

Article VII - Obligation of Funds

The amount presently obligated by the NRC for this agreement for performance of the tasks defined in this statement of work is $*.

Article VIII - Points of Contact

The NIST contacts for this agreement are:

Project Manager: Andrew J. Fowell, Chief,
Fire Science and Engineering Div.
Phone: (301) 975-6865
Fax: (301) 975-4052

Technical Contact: Vytenis Babrauskas,
Fire Dynamics Group,
Phone: (301) 975-6681
Fax: (301) 975-4052

Administrative (financial reporting) Contact:
~~Ms. Kathryn Stewart~~ John McGuffin
~~Executive Officer~~ Comptroller
~~Building and Fire Research Laboratory~~ Room A-929, Bldg. 101
NIST
Gaithersburg, MD 20899

The NRC contacts for this agreement are:

Technical Contact: Steven West, Project Officer
(301) 492-1220 or 492-0304

Contractual Contact: Helen Hagey, Contracting Officer
(301) 492-9449.

* To be incorporated into resultant agreement

MONTHLY BUSINESS LETTER REPORTING REQUIREMENTS

Each MBLR shall identify the Financial Identification Number (FIN) and title, the principal investigator and phone number, the period of performance, and the reporting period, and shall include the following sections:

OBJECTIVE

Provide a brief statement of the objectives of the project.

PROGRESS DURING REPORTING PERIOD

Provide a clear, succinct discussion of the work performed on each task during the reporting period. As a minimum, this discussion should include sufficient detail to support the costs reported for the period. Travel taken and meetings attended during the reporting period should be documented in this section of the MBLR. This documentation should include the purpose of the travel/meeting, the identity of the of the NIST staff involved, the results of the travel/meeting, and any follow up actions to be taken.

In addition, the current status of each task should be identified as follows:

Schedule of Milestones and Deliverables

Task Number	Work Initiated	Draft Report Due	Final Report Due	Status
Task 1				
.				
.				
.				
Task n				

PROBLEM AREAS

Provide a brief discussion of problems encountered during the reporting period, or anticipated. Include the resolution or proposed solution. It should be clearly evident who has the action to solve the problem. The status of the problem should be updated in subsequent MBLRs. The problem should be deleted from the MBLR following final resolution.

Problems or circumstances that require a change in the level of effort or estimated costs, scope of work, or travel requirements, should be summarized in this section of the MBLR. In addition, a letter justifying the need for a modification to the interagency agreement should be sent to the NRC Project Officer for action.

PLANS FOR THE NEXT REPORTING PERIOD

Provide a brief discussion of the work to be performed and the travel to be taken during the next reporting period. If a milestone will be completed during the period, this should be noted.

FINANCIAL STATUS

Provide the total direct staff use, the amount of funds costed during the period, the total amount of funds costed during the current fiscal year to date, and the cumulative amount of funds costed (all fiscal years) to date. The costs should be reported as whole numbers rounded to the nearest dollar. The financial status shall be reported in the format provided below.

VARIANCE EXPLANATION

Provide a brief discussion of any significant variances in schedule or spending rate. If a variance is more appropriately classified as a problem, it should be discussed in the problem area section of the MBLR.

BILLING INSTRUCTIONS FOR INTERAGENCY AGREEMENT

The Agency shall submit an original and four copies of vouchers for cost-reimbursment in the following manner:

Claims shall be submitted on the Standard Form 1081, Voucher for Transfers Between Appropriations and/or Funds.

Frequency. The Agency shall submit claims for reimbursement as each task is completed.

Billing of Costs After Expiration of Agreement. If reimbursable costs are incurred during the agreement period and claimed after the agreement has expired, the period during which these costs were incurred must be cited.

The Agency shall furnish the information set forth below:

(a) Address the original voucher (with copies) to the Contracting Officer, U.S. Nuclear Regulatory Commission, Mail Stop p-902, Washington, D.C. Payment will be made by U.S. Nuclear Regulatory Commission, Office of Resource Management, Division of Accounting and Finance, ATTN: GOV/COM Accounts Section, Washington, DC 20555.

(b) Voucher Number. Insert the appropriate serial number of the voucher. This must be in sequential order beginning with 001 as the number to be used for the first voucher submitted under this agreement.

(c) Date of Voucher. Insert the date the voucher is prepared.

(d) Agreement Number, FIN Number, and Date. Insert the agreement number, the FIN number, and the effective date of the agreement.

(e) Payee's Name and Address. Show the name and address of the Agency and include name of voucher preparer and telephone number.

(f) Billing Period. Insert the beginning and ending dates (day, month, and year) of the period in which costs were incurred and for which reimbursement is claimed.

(g) Billing Detail. Insert the major cost elements as follows:

(1) Direct Labor. This Consists of salaries and wages paid (or accrued) for direct performance of the contract.

(2) Materials and Supplies. This is consumable materials and supplies and equipment. Specify separately all items over $1,000.

(3) Other. List all other direct costs.

(4) Overhead. Show that amount of the billing which is overhead.

(h) Amount Billed for Current Period. Insert the amount billed for adjustments and adjusted amounts for the period.