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Additionally, the following sections are completed and revised as follows:

- Paragraph B.2 Consideration and Obligation.
  - a. The total estimated amount of this contract (ceiling) for the products/services ordered, delivered, and accepted under this contract is \$207,211.02.
  - b. The amount presently obligated with respect to this contract is \$30,000.00.
- Paragraph F.2 Technical Progress Report F.2.c. and F.2.d. are revised to read:

The Contractor shall provide a monthly Technical Progress Report to the: "c. Director, Division of Operational Assessment, AEOD and d. Director, Technical Training Center, Division of Operational Assessment, AEOD."

3. Paragraph F.3 Financial Status Report. F.3.c. and F.3.d. are revised to read:

The Contractor shall provide a monthly Financial Status Report to the: "c. Director, Division of Operational Assessment, AEOD and d. Director, Technical Training Center, Division of Operational Assessment, AEOD."

- 4. Paragraph F.4 Place of Delivery, Paragraph F.4.a. Project Officer and 5.4.b. Contracting Officer is completed as follows:
  - a. Project Officer (1 copy)

"U.S. Nuclear Regulatory Commission Contract Number: NRC-26-87-417 Office for Analysis and Evaluation of Operational Data Division of Operational Assessment Technical Training Center Osborne Office, Suite 200 Chattanooga, TN 37411"

b. Contracting Officer (1 copy)

"U.S. Nuclear Regulatory Commission Contract Number: NRC-26-87-417 Office of Administration and Resources Management Division of Contracts Contract Administration Branch Mail Stop: AR-2223 Washington, DC 20555" 5. Paragraph F.5 Duration of Contract Period.

The ordering period for this contrict shall be effective on August 20, 1987 and will expire on August 20, 1990.

- 6. Paragraph G.1 Indirect Rates
  - a. Pending the establishment of final indirect rates which shall be negotiated based on audit of actual costs, the Contractor shall be reimbursed for allowable indirect costs as follows:

"Category	Rate (%)	Cost Base	Applicable Period
Overhead Fringe Benefits	33.16% 20.5%	Total Direct Costs Direct Labor	8/20/87 - 8/20/90 8/20/87 - 8/20/90
G&A	8.48%	Total Direct Costs	8/20/87 - 8/20/90

- 7. Paragraph G.2 Project Officer Authority.
  - a. The Contracting Officer's authorized representative hereinafter referred to as the Project Officer for this contract is:

"Name: Steven K. Showe

Address: U.S. Nuclear Regulatory Commission

Technical Training Center Osborne Office, Suite 200 Chattanooga, TN 37411

Telephone Number: (615) 899-5454"

8. Paragraph G.3 Travel Reimbursement.

"a. Total expenditure for domestic travel shall not exceed \$14,500.00 without the prior approval of the Contracting Officer."

9. Paragraph H.1 Key Personnel.

"a. The following individuals are considered to be essential to the successful performance of the work hereunder.

Roger A. Felthous, President/Project Manager James A. McCrary, Vice President Robert G. Profeta, Director, Engineering/Training Thomas E. Grinnell, Manager, Training Section C - Description/Specifications/Work Statement

### C.1 Statement of Work

## C.1.1 Background

The Nuclear Regulatory Commission licenses and inspects power reactor facilities to issure compliance with applicable codes and standards during all phases of construction, testing and operation in order to identify conditions which may adversely affect the health and safety of the public. In support of this mission, the NRC's Office of Inspection and Inforcement provides a program of training for NRC Inspectors and other NRC personnel.

The NRC Technical Training Center (TTC) has been able to provide quality and timely training in the areas of reactor technology by using the expertise of the TTC staff. The TTC staff has historically had little or no experience in the areas of specialized technical training, outside the bounds of reactor technology. Consequently, the method of providing such training for the last several years has been to identify a specific training need and then to start the process of creating an individual contract. Periodically, however, unique or one-time training needs arise. In order to respond to these needs, the NRC requires a Contractor to provide these specialized technical training requirements. In some cases, this training may be required on a relatively short notice (30 to 60 days).

# C.1.2 Contract Objective

The purpose of this RFP is to select a qualified Contractor to provide technical assistance to the NRC in the implementation of identified needs and/or further development of programs to meet future needs for specialized technical training of NRC inspectors in the area of Pressurized Water Reactor (PWR) training.

# C.1.3 Technical Knowledge

The Contractor must be able to offer the professional, administrative, and technical staff to provide consulting, training development and technical assistance services to the NRC. Specific and demonstrable competence in the following areas must be assured:

1. Expert knowledge of nuclear power reactor technology.

 Expert knowledge of training programs and practices in the nuclear industry.

 Expert knowledge of consensus codes and standards applicable to the nuclear industry.

Knowledge of NRC inspection program requirements.

Knowledge and experience in the systematic approaches to customized training development (ISD) including: front-end analysis, course development, delivery and evaluation.

# C.I.4 Work to be Performed

- 2. Scope. This contract will involve the application of any or all of the areas listed in C.1.3 above, to assist the NRC in the implementation of programs to supply identified needs and in development of programs to supply future needs of the NRC in the area of specialized technical training for NRC inspectors. The contractor shall furnish the necessary qualified personnel materials, facilities (if required) and services to provide the requested training.
- Work Tasks. This is a Task Order contract under which all task orders will be issued at the sole option of the NRC Contracting Officer. Refer to Section G.8 for task order procedures. It is understood that the NRC undertakes no obligation hereby to issue a task order. The provision of this arrangement will govern all fask Orders issued hereunder. Each Task Order for consulting and technical assistance services will be in writing, dated, and sequentially numbered.
- Training Examples. (1) Courses on particular valve operation and maintenance, quality assurance, industrial radiography and fuel facilities and mills. (2) Courses, seminars, or lectures covering topics such as the following: fluid flow and pumps; plant instrumentation; valves, piping, and supports; electrical and AC motors; control theory and controllers; basic nuclear and AC motors; control theory and controllers; basic nuclear theory; turbines; and plant chemistry. (3) Specialized training in the form of seminars on inspection and licensing issues, in the form of seminars on inspection and licensing issues, industry changes and state of the art equipment.
- The specialized technical training presented under the Task Orders may be conducted at various sites (the NRC Technical Training Center, NRC Headquarters, NRC Regional Offices, or the contractor's facilities), depending upon the nature of the training to be provided.
- 6-eneral Information. The information below is typical of a training course to be ordered by a Task Order. Specific requirments would be delineated in each Task Order.
- a. Class size will generally range from 12 to 18 students.
- The contractor shall prepare, administer and grade a written examination to evaluate the student's understanding of the course material. As required, the contractor shall provide a grade reexaminations for students who do not achieve a sufficient understanding of the course material.

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- c. Approximately seven (7) hours of lecture time is available per day.
- d. The contractor shall reproduce and furnish bound copies of the course written material (manual, etc.) in appropriate sized three-ring binders. Approximately 25 copies would be required for each course.
- e. The contractor shall deliver all course materials for a specific course to the designated NRC training site at least two days prior to the start of each training session. The contractor shall arrive in sufficient time prior to the beginning of the first day's session to set up the training room, arrange the furniture as necessary, lay out student materials and prepare equipment and instructor aids without delaying the course commencement time of 8:00 a.m.
- f. The contractor shall develop and utilize formal lesson plans for course presentations.
- g. The contractor may be required to modify all or any part of the training materials developed for a course at the direction of the NRC Project Officer. The contractor shall be responsible for ensuring that any such modifications are reflected in the course materials provided to the students. A specific task order will be issued for any required modifications.
- h. Should the NRC determine no later than 21 days prior to the time a course session is to begin that the need is insufficient to conduct the training, the NRC may reschedule the session without obligation to the Government.
- i. The NRC Project Officer will be responsible for the review and approval of contractor developed training aids, case study manuals, instructor lesson plans and the course examinations.
- j. The NRC reserves the right to supplement course presentations with NRC technical experts if available.
- k. The contractor shall provide a certificate, suitable for framing, for each student who satisfactorily completes a course.

# C.2 Travel

- a. All domestic travel requires the prior approval of the Project Officer.
- b. Each Task Order will specify the location required for performance of work. The course will be conducted at one of the following sites: the NRC Technical Training Center, NRC Headquarters, NRC Regional Offices or Contractor facilities.

Section D - Packaging and Marking

D.1 Packaging and Marking When Delivering a Product

The Contractor shall package material for shipment to the NRC in such a manner that will insure acceptance by common carrier and safe delivery at destination. Containers and closures shall comply with the Interstate Commerce Commission Regulations, Uniform Freight Classification Rules, or regulations of other carriers as applicable to the mode of transportation. On the front of the package, the Contractor shall clearly identify the contract number under which the product is being provided.

Section E - Inspection and Acceptance

E.1 Place of Inspection and Acceptance

Inspection and acceptance of the deliverable items to be furnished hereunder shall be made by the Project Officer at the destination.

Section F - Deliveries and Performance

F.I

Reports, Documentation and Other Deliverable End Items

All technical reports required by Section C and all Technical Progress Reports required by Section F are to be prepared in accordance with the attached NRC Manual Chapter 3202 is not applicable to the Spending Plan and the Financial Status Report.

F.2 Technical Progress Report

o.d

The Contractor shall provide a monthly Technical Progress Report to the: a. Project Officer; b. Contracting Officer, c. Director, Divison of Quality Assurance, Vendor, and Technical Training Center, Division of Quality Assurance, Vendor, and Technical Training Center Programs, OIE. Assurance, Vendor, and Technical Training Center Programs, OIE. The report is due within 15 calendar days after the end of the report period and shall identify the title of the project, the contract number, project manager and/or principal investigator, the contract number, project manager and/or principal investigator, the contract report shall include the following:

s. A listing of the efforts completed during the period; milestones reached or, if missed, an explanation provided;

Any problems or delays encountered or anticipated and recommendations for resolution; (if the recommended resolution involves a contract modification, e.g., change in work requirements, level of effort (cost) or schedule delay, the Contractor shall submit a separate letter to the Contracting Officer identifying the required change and estimated cost impact).

5. Knowledge and experience in the systematic approaches to customized training development (ISD) including: front-end analysis, course design, course development, delivery and evaluation.

## C.1.4 Work to be Performed

- 1. Scope. This contract will involve the application of any or all of the areas listed in C.1.3 above, to assist the NRC in the implementation of programs to supply identified needs and in development of programs to supply future needs of the NRC in the area of specialized technical training for NRC inspectors. The contractor shall furnish the necessary qualified personnel materials, facilities (if required) and services to provide the requested training.
- Work Tasks. This is a Task Order contract under which all task orders will be issued at the sole option of the NRC Contracting Officer. Refer to Section G.8 for task order procedures. It is understood that the NRC undertakes no obligation hereby to issue a task order. The provision of this arrangement will govern all Task Orders issued hereunder. Each Task Order for consulting and technical assistance services will be in writing, dated, and sequentially numbered.
- Training Examples. (1) Courses on particular valve operation and maintenance, quality assurance, industrial radiography and fuel facilities and mills. (2) Courses, seminars, or lectures covering topics such as the following: fluid flow and pumps; plant instrumentation; valves, piping, and supports; electrical theory, electrical distribution, generators, diesel generators, and AC motors; control theory and controllers; basic nuclear theory; turbines; and plant chemistry. (3) Specialized training in the form of seminars on inspection and licensing issues, industry changes and state of the art equipment.

The specialized technical training presented under the Task Orders may be conducted at various sites (the NRC Technical Training Center, NRC Headquarters, NRC Regional Offices, or the contractor's facilities), depending upon the nature of the training to be provided.

- 4. General Information. The information below is typical of a training course to be ordered by a Task Order. Specific requirments would be delineated in each Task Order.
  - a. Class size will generally range from 12 to 18 students.
  - b. The contractor shall prepare, administer and grade a written examination to evaluate the student's understanding of the course material. As required, the contractor shall provide a grade reexaminations for students who do not achieve a sufficient understanding of the course material.

Section D - Packaging and Marking

D.1 Packaging and Marking When Delivering a Product

The Contractor shall package material for shipment to the NRC in such a manner that will insure acceptance by common carrier and safe delivery at destination. Containers and closures shall comply with the Interstate Commerce Commission Regulations, Uniform Freight C'assification Rules, or regulations of other carriers as applicable to the mode of transportation. On the front of the package, the Contractor shall clearly identify the contract number under which the product is being provided.

Section E - Inspection and Acceptance

E.1 Place of Inspection and Acceptance

Inspection and acceptance of the deliverable items to be furnished hereunder shall be made by the Project Officer at the destination.

Section F - Deliveries and Performance

F.1 Reports, Documentation and Other Deliverable End Items

All technical reports required by Section C and all Technical Progress Reports required by Section F are to be prepared in accordance with the attached NRC Manual Chapter 3202. NRC Manual Chapter 3202 is not applicable to the Spending Plan and the Financial Status Report.

F.2 Technical Progress Report

The Contractor shall provide a monthly Technical Progress Report to the: a. Project Officer; b. Contracting Officer, c. Director, Divison of Quality Assurance, Vendor, and Technical Training Center Programs, OIE, and d. Director, Technical Training Center, Division of Quality Assurance, Vendor, and Technical Training Center Programs, OIE. The report is due within 15 calendar days after the end of the report period and shall identify the title of the project, the contract number, project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report shall include the following:

- A listing of the efforts completed during the period; milestones reached or, if missed, an explanation provided;
- b. Any problems or delays encountered or anticipated and recommendations for resolution; (if the recommended resolution involves a contract modification, e.g., change in work requirements, level of effort (cost) or schedule delay, the Contractor shall submit a separate letter to the Contracting Officer identifying the required change and estimated cost impact).

- c. A summary of progress to date, and
- d. Plans for the next reporting period.
- F.3 Financial Status Report

The Contractor shall provide a monthly Financial Status Report to the: a. Project Officer; b. Contracting Officer, c. Director, Division of Quality Assurance, Vendor, and Technical Training Center Programs, OIE; and d. Director, Technical Training Center, Division of Quality Assurance, Vendor, and Technical Training Center Programs, OIE. The report is due within 15 calendar days after the end of the report period and shall identify the title of the project, the contract number, project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report shall include the following for each discrete task:

- a. Provide the total estimated cost (value) of the project as reflected in the contract, the amount of funds available in the contract to date, and the balance of funds required to complete the work as follows: (The breakdown of costs must track with the corresponding voucher billings. If there is a discrepancy between the monthly report and voucher amount, the discrepancy must be explained in the monthly report.
  - Total Estimated Contract Amount.
     Total Funds Obligated To Date.
  - 3) Total Costs Incurred This Reporting Period.
  - 4) Total Costs Incurred To date.
  - 5) Balance of Obligations Remaining.
  - 6) Balance of Funds Required To Complete Contract.
- b. Detail of all direct and indirect costs incurred during the reporting period for each task.
- c. Update of the approved Spending Plan.
- F.4 Place of Delivery.

The items to be furnished hereunder shall be delivered, with all charges paid by the Contractor, to:

a. Project Officer (1 copy)

U.S. Nuclear Regulatory Commission Contract Number: \* Office of \* Division of \* Mail Stop: \* Washington, D.C. 20555 b. Contracting Officer (1 copy)

U.S. Nuclear Regulatory Commission Contract Number: \* Office of Administration Division of Contracts Contract Administration Branch Mail Stop: AR-2223 Washington, D.C. 20555

- \* To be incorporated into any resultant contract.
- F.5 Duration of Contract Period.

The ordering period for this contract shall commence on the effective date reflected in block 3 of the SF 26 and will expire \* months thereafter. Any orders issued during this period shall be completed within the time specified in the order, unless otherwise specified herein. (See 52.216-18 - Ordering (APR 1984)).

\* To be incorporated into any resultant contract.

## F.6 FAR Citations

Section G - Contract Administration Data

- G.1 Indirect Rates
  - a. Pending the establishment of final indirect rates which shall be negotiated based on audit of actual costs, the Contractor shall be reimbursed for allowable indirect costs as follows:

Category Rate (%) Cost Base Applicable Period
Overhead
Fringe Benefits
G&A
Other:

b. The Contracting Officer may adjust the above rates as appropriate during the term of the contract upon acceptance of any revisions proposed by the Contractor. It is the Contractor's responsibility to notify the Contracting Officer in accordance with 52.232-20 - Limitation of Cost ((APR 1984) or 52.232-22 - Limitation of Funds (APR 1984), as applicable, if such change(s) affect(s) performance of work within the established cost or funding limitations.

## G.2 Project Officer Authority.

a. The Contracting Officer's authorized representative hereinafter referred to as the Project Officer for this contract is:

Name: \*
Address: \*

Telephone Number: \*

- b. Performance of the work under this contract shall be subject to the technical direction of the NRC Project Officer. The term "Technical Direction" is defined to include the following:
  - Technical direction to the Contractor which shifts work emphasis between areas of work or tasks, fills in details or otherwise serves to accomplish the contractual statement of work.
  - Providing advice and guidance to the Contractor in the preparation of drawings, specifications or technical portions of the work description.
  - Review and, where required by the contract, approval of technical reports, drawings, specifications and technical information to be delivered by the Contractor to the Government under the contract.
- c. Technical direction must be within the general statement of work stated in the contract. The Project Officer does not have the authority to and may not issue any technical direction which:
  - Constitutes an assignment of additional work outside the general scope of the contract.
  - Constitutes a change as defined in the "Changes" clause of this contract.
  - 3). In any way causes an increase or decrease in the total estimated contract cost, the fixed fee, if any, or the time required for contract performance.
  - 4). Changes any of the expressed terms, conditions or specifications of the contract.
  - 5). Terminates the contract or settles any claim or dispute arising under the contract, or issue any unilateral directive whatever.

- d. All technical directions shall be issued in writing by the Project Officer or shall be confirmed by such person in writing within ten (10) working days after verbal issuance. A copy of said written direction shall be submitted to the Contracting Officer.
- e. The Contractor shall proceed promptly with the performance of technical directions duly issued by the Project Officer in the manner prescribed by this clause and within such person's authority under the provisions of this clause.
- f. If, in the opinion of the Contractor, any instruction or direction issued by the Project Officer is within one of the categories as defined in c above, the Contractor shall not proceed but shall notify the Contracting Officer in writing within five (5) working days after the receipt of any such instruction or direction and shall request the Contracting Officer to modify the contract accordingly. Upon receiving such notification from the Contractor, the Contracting Officer shall issue an appropriate contract modification or advise the Contractor in writing that, in the Contracting Officer's opinion, the technical direction is within the scope of this article and does not constitute a change under the Changes Clause.
- g. Any unauthorized commitment or direction issued by the Project Officer may result in an unnecessary delay in the Contractor's performance, and may even result in the Contractor expending funds for unallowable costs under the contract.
- h. A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect thereto shall be subject to 52.233-1 Disputes (APR 1984).
- i. In addition to providing technical direction as defined above, the Project Officer is responsible for:
  - Monitoring the Contractor's technical progress, including surveillance and assessment of performance, and recommending to the Contracting Officer changes in requirements.
  - 2). Assisting the Contractor in the resolution of technical problems encountered during performance.
  - Reviewing all costs requested for reimbursement by Contractor and submitting to the Contracting Officer recommendations for approval, disapproval, or suspension for supplies and services required under this contract.
  - \* To be incorporated into any resultant contract.

### G.3 Travel Reimbursement.

- a. Total expenditure for domestic travel shall not exceed \$ without the prior approval of the Contracting Officer.
- b. The Contractor will be reimbursed for reasonable domestic travel costs incurred directly and specifically in the performance of this contract. The cost limitations for travel costs are determined by the Federal Travel Regulations that are in effect on the date of the trip. These Regulations specify the daily maximum per diem rates for specific localities within the Conterminous United States (CONUS), the standard CONUS rate, the allowance for meals and incidental expenses (M&IE), the cost of travel by privately owned automobile, and the items which require receipts. The Contractor can obtain the Regulations from the Superintendent of Documents, Government Printing Office, Washington, DC 20402.
- c. When the Government changes the Federal Travel Regulations, it is the responsibility of the Contractor to notify the Contracting Officer in accordance with the Limitation of Cost clause of this contract if the Contractor will be unable to make all of the approved trips and remain within the cost and fee limitations of this contract.
- d. The rates for any NRC approved foreign travel under this contract are established by the U. S. Department of State and are listed in a publication entitled "Maximum Travel Per Diem Allowances For Foreign Areas". Copies of this publication may be obtained from U. S. Government Printing Office, Washington, D.C. 20402
  - \* To be incorporated into any resultant contract.

# G.4 Method of Payment

- a. Payment under this contract will be made by wire transfer through the Treasury Financial Communications System for each individual payment in excess of \$25,000 and by Treasury check for each individual payment of \$25,000 or less.
- b. In the event that the Contractor's financial institution has access to the Federal Reserve Communications System, the Contractor shall forward the following information in writing to the Contracting Officer within seven days after the effective date of the contract.
  - 1). Name and address of organization.
  - 2). Contact person and telephone number.

- 3). Name and address of financial institution.
- 4). Contractor's Financial institution's 9-digit ABA identifying number for routing transfer of funds.
- 5). Telegraphic abbreviation of Contractor's financial institution.
- 6). Account number at Contractor's financial institution.
- 7). Signature and title of person supplying this information.
- c. In the event the Contractor's financial institution does not have access to the Federal Reserve Communications System, the Contractor shall forward the following information with regard to a correspondent or alternate financial institution. The information shall be in writing and submitted to the Contracting Officer within seven days after the effective date of the contract.
  - 1). Name and address of organization.
  - 2). Contact person and telephone number.
  - 3). Name and address of financial institution.
  - 4). Telegraphic abbreviation of Contractor's financial institution.
  - 5). Account number at Contractor's financial institution.
  - Name and address of the correspondent financial institution that has access to the Federal Reserve Communications System.
  - 7). Correspondent financial institution 9-digit ABA identifying number for routing transfer of funds.
  - 8). Telegraphic abbreviation of correspondent financial institution.
  - 9). Signature and title of person supplying this information.
- d. Any changes to the information furnished under this clause shall be furnished to the Contracting Officer in writing. It is the Contractor's responsibility to furnish these changes promptly to avoid payments to erroneous bank accounts.

## G.5 Payment Due Date.

- a. Payments under this contract will be due 30 calendar days after the later or:
  - The date of actual receipt of a proper invoice in accordance with the attached "Billing Instructions", or
  - The date the final deliverable product/service is accepted by the Government.
- b. For the purpose of determining the due date for payment and for no other purpose, acceptance will be deemed to occur 30 calendar days after the date of delivery of the final deliverable product/service performed in accordance with the terms of the contract.
- c. If the final product/service is rejected for failure to conform to the technical requirements of the contract, the provisions in paragraph b of this clause will apply to the new delivery of the final product/service.
- d. The date of payment by wire transfer through the Treasury Financial Communications System shall be considered the date payment is made for individual payments exceeding \$25,000. The date a check is issued shall be considered the date payment is made for individual payments of \$25,000 or less.

# G.6 Interest on Overdue Payments.

- a. The Prompt Payment Act, Public Law 97-177 (96 STAT. 85, 31 USC 1801) is applicable to payment of the expiration invoice under this contract and requires the payment of interest to Contractors on overdue payments of the expiration invoice or improperly taken discounts.
- b. Determinations of interest due will be made in accordance with the provisions of the Prompt Payment Act and Office of Management and Budget Circular A-125, Vol. 47 Federal Register 37321, August 25, 1982. Among other considerations, OMB Circular A-125 provides that:
  - Interest penalties are not required when payment is delayed because of a disagreement over the amount of payment or other issues concerning compliance with the terms of the contract.
  - Whenever a proper invoice is paid after the due date plus 15 days, interest will be included with the payment at the interest rate applicable on the payment date. Interest will be computed from the day after the due date through the payment date.

- c. For purposes of this clause, an expiration invoice is defined as a claim submitted for costs incurred for performance through the expiration date of a Cost Type contract.
- G.7 Remittance Address

If item 15c. of the Standard Form 33 has been checked, enter the remittance address below.

lame:	 лан чилинальной з >-1	-	-	water the same of	
Address:					-
			Andreas at 16 Printle State Street or		Torque de Carrer

- G.8 Task Order Procedures
  - a. Task Order Request for Proposal

When a requirement within the scope of work for this contract is identified, the Contracting Officer will transmit to the Contractor a Task Order Request for Proposal which will include the following, as appropriate:

- 1). Scope of Work/Meetings/Travel and Deliverables.
- 2). Reporting Requirements.
- 3). Period of Performance Place of performance.
- 4). Applicable Special Provisions.
- 5). Technical Skills Required.
- 6). Estimated Level of Effort.
- b. Task Order Proposal

By the date specified in the Task Order Request for Proposal, the Contractor shall deliver to the Contracting Officer a written Task Order Proposal that provides the following technical and cost information, as appropriate:

- 1). Technical Proposal Content.
  - a). A discussion of the scope of work requirements to substantiate the Contractor's understanding of the requirements of the Task Order and the Contractor's proposed method of approach to meet the objective of the order.

- b). Resumes for professional personnel proposed to be utilized in the performance of any resulting task order. Include educational background, specific pertinent work experience and a list of any pertinent publications authored by the individual.
- c). Identification of administrative support personnel and/or facilities that are needed to assist the professional personnel in completing work on the tack order.
- d). Identification of "Key Personnel" and the number of staff hours that will be committed to completion of work on the Task Order.

### 2). Cost Proposal

The Contractor's cost proposal for each Task Order shall be prepared using the Standard Form 1411, Contract Pricing Proposal cover sheet. A copy of the form and instructions are attached to this contract. Each Task Order cost proposal shall be fully supported by cost and pricing data adequate to establish the reasonableness of the proposed amounts. When the Contractor's estimated cost for the proposed Task Order exceeds \$100,000 and the period of performance exceeds 6 months, the Contractor is required to submit a Spending Plan as part of its cost proposal. Guidance for completing the Spending Plan will be provided with the Task Order Request for Proposal.

# Cost Proposal Assumption

- a) The offeror shall assume meetings and travel requirements for one or two courses in the first year and two or three courses in the second and third years. The meetings, associated with each course, will be with the NRC Project Officer and other NRC staff and will be conducted at the NRC Technical Training Center, NRC Headquarters, or NRC Regional Office, depending upon the nature of the specific Task Order to be issued.
- b) The following additional requirements should be assumed:
  - (1) Each course will be one week in length and will be presented at an NRC controlled facility (unless the specific equipment located at the Contractor's facility precludes holding the course elsewhere. Fifty percent (50%) of the

Task Order courses will be presented at the NRC Technical Training Center, forty percent (40%) will be presented in one of the NRC regional locations, and ten percent (10%) will be presented at NRC Headquarters.

- (2) Two instructors will be required for each course being presented.
- (3) Any courses which presently exist but need customization to fit NRC needs will require approximately one man-week to customize.
- c) Described briefly, below, is a course that might be ordered by Task Order. Each assumed Task Order proposal should include all costs, direct, and indirect for which the offeror would expect to be approved and paid by the NRC. Offerors should assume that the courses would be held at the NRC Technical Training Center, Chattanooga, Tennessee unless special facilities are required.

Seminar on Safety/Relief Valves used on BWR and PWR Nuclear Steam Supply Systems: 3 days; provide an overview of the operation and maintenance of various types of safety and relief valves currently used by BWR and PWR facilities. The discussion should include the operating histories and problems encountered with the valves.

#### c. Task Order Award

The Contractor shall perform all work described in definitized Task Orders issued by the Contracting Officer. Definitized Task Orders will include the following:

- 1). Statement of Work, / Meetings / Travel and Deliverables.
- 2). Reporting Requirements.
- 3). Period of Performance.
- 4). Key Personnel.
- 5). Applicable Special Provisions.
- 6). Tota! Task Order amount.

#### G.9 Accelerated Task Order Procedures

a. The NRC may require the Contractor to commence work before receipt of a definitized Task Order from the Contracting Officer.

Accordingly, when the Contracting Officer verbally authorizes, the Contractor shall proceed with performance of the Task subject to monetary limitation established for the Task Order by the Contracting Officer.

b. When this accelerated procedure is employed by the NRC, the Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive Task Order and agrees to submit a cost proposal with supporting cost or pricing data. If agreement on a definitized Task Order is not reached by the target date mutually agreed upon by the Contractor and Contracting Officer or within any extension of it granted by the Contracting Officer, the Contracting Officer may determine a reasonable price and/or fee in accordance with Subpart 15.8 and Part 31 of the FAR, subject to Contractor appeal as provided in 52.233-1 - Disputes (APR 1984). In any event, the Contractor shall proceed with completion of the Task Order, subject only to the monetary limitation established by the Contracting Officer and the terms and conditions of the basic contract.

## Section H - Special Contract Requirements

## H.1 Key Personnel

a. The following individuals are considered to be essential to the successful performance of the work hereunder.

The Contractor agrees that such personnel shall not be removed from the contract work or replaced without compliance with paragraphs b and c hereof.

- b. If one or more of the key personnel for whatever reason becomes, or is expected to become, unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the Contractor shall immediately notify the Contracting Officer and shall, subject to the concurrence of the Contracting Officer, promptly replace such personnel with personnel of at least substantially equal ability and qualifications.
- c. All requests for approval of substitutions hereunder must be in writing and provide a detailed explanation of the circumstances necessitating the proposed substitutions. They must contain a complete resume for the proposed substitute, and other information requested by the Contracting Officer to approve or disapprove the proposed substitution. The Contracting Officer will evaluate such requests and promptly notify the Contractor of his/her approval or disapproval thereof in writing.

- d. If the Contracting Officer determines that suitable and timely replacement of key personnel who have been reassigned, terminated or have otherwise become unavailable for the contract work is not reasonably forthcoming or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the contract or the service order, the contract may be terminated by the Contracting Officer for default or for the convenience of the Government, as appropriate, or, at the discretion of the Contracting Officer if he/she finds the Contractor at fault for the condition, the contract price or fixed fee may be equitably adjusted downward to compensate the Government for any resultant delay, loss or damage.
  - \* To be incorporated into any resultant contract
- H.2 Safety, Health, and Fire Protection.

The Contractor shall take all reasonable precautions in the performance of the work under this contract to protect the health and safety of employees and of members of the public and to minimize danger from all hazards to life and property and shall comply with all applicable health, safety, and fire protection regulations and requirements (including reporting requirements) of the Commission and the Department of Labor. In the event that the Contractor fails to comply with said regulations or requirements, the Contracting Officer may, without prejudice to any other legal or contractual rights of the Commission, issue an order stopping all or any part of the work; thereafter, a start order for resumption of work may be issued at the discretion of the Contracting Officer. The Contractor shall make no claim for an extension of time or for compensation or damages by reason of or in connection with such work stoppage.

H.3 Dissemination of Contract Information .

The Contractor shall comply with the requirement of NRC Manual Chapters 3202 and 3206 regarding publication or dissemination to the public of any information, oral or written, concerning the work performed under this contract. Failure to comply with this clause shall be grounds for termination of this contract.

H.4 Private Use of Contract Information and Data .

Except as specifically authorized by this contract, or as otherwise approved by the Contracting Officer, information and other data developed or acquired by or furnished the Contractor in the performance of this contract, shall be used only in connection with the work under this contract.

H.5 Drawings, Designs, and Specifications.

All drawings, sketches, designs, design data, specifications, notebooks, technical and scientific data, and all photographs, negatives, reports, findings, recommendations, data and memoranda of every description relating thereto, as well as all copies of the foregoing relating to the work or any part thereto, shall be subject to inspection by the Commission at all reasonable times (for which inspection the proper facilities shall be afforded the Commission by the Contractor and its subcontractors), shall be the property of the Government and may be used by the Government for any purpose whatsoever without any claim on the part of the Contractor and its subcontractors and vendors for additional compensation and shall, subject to the right of the Contractor to retain a copy of said material for its own use, be delivered to the Government, or otherwise disposed of by the Contractor either as the Contracting Officer may from time to time direct during the progress of the work or in any event as the Contracting Officer shall direct upon completion or termination of this contract. The Contractor's right of retention and use shall be subject to the security, patent, and use of information provisions, if any, of this contract.

- H.6 Contractor Organizational Conflicts of Interest (OMB Clearance Number 3150-0112)
  - a. Purpose. The primary purpose of this clause is to aid in ensuring that the Contractor:
    - Is not placed on a conflicting role because of current or planned interest (financial, contractual, organizational, or otherwise) which relate to the work under this contract, and
    - Does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.
  - b. Scope. The restrictions described herein shall apply to performance or participation by the Contractor as defined in 41 CFR §20-1.5402(f) in the activities covered by this clause.
  - c. Work for Others. Notwithstanding any other provision of this contract, during the term of this contract, the Contractor agrees to forgo entering into consulting or other contractual arrangements with any firm or organization, the result of which may give rise to a conflict of interest with respect to the work being performed under this contract. The Contractor shall ensure that all employees who are employed full time under this contract and employees designated as key personnel, if any, under this contract abide by the provision of this clause. If the Contractor believes with respect to itself or any such employee that any

proposed consultant or other contractual arrangement with any firm or organization may involve a potential conflict of interest, the Contractor shall obtain the written approval of the Contracting Officer prior to execution of such contractual arrangement.

- d. Disclosure after award.
  - The Contractor warrants that to the best of its knowledge and belief and except as otherwise set forth in this contract, it does not have any organizational conflicts of interest, as defined in 41 CFR 20-1.5402(a).
  - 2). The Contractor agrees that if after award it discovers organizational conflicts of interest with respect to this contract, it shall make an immediate and full disclosure in writing to the Contracting Officer. This statement shall include a description of the action which the Contractor has taken or proposes to take to avoid or mitigate such conflicts. The NRC may, however, terminate the contract for convenience if it deems such termination to be in the best interests of the Government.
- e. Access to and use of information.
  - 1). If the Contractor in the performance of this contract obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (Pub. L. 93-579), or data which has not been released to the public, the Contractor agrees not to:
    - (i) Use such information for any private purpose until the information has been released to the public;
    - (ii) Compete for work for the Commission based on such information for a period of six (6) months after either the completion of this contract or the release of such information to the public, whichever is first;
    - (iii) Submit an unsolicited proposal to the Government based on such information until one year after the release of such information to the public, or
    - (iv) Release the information without prior written approval by the Contracting Officer unless such information has previously been released to the public by the NRC.
  - 2). In addition, the Contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (Pub. L. 93-579), or other confidential or privileged technical, business, or

financial information under this contract, the Contractor shall treat such information in accordance with restrictions placed on use of the information.

- 3. The Contractor shall have, subject to patent and security provisions of this contract, the right to use technical data it produces under this contract for private purposes provided that all requirements of this contract have been met.
- f. Subcontracts. Except as provided in 41 CFR 20-1.5402(h), the Contractor shall include this clause, including this paragraph, in subcontracts of any tier. The terms "contract," "Contractor," and "Contracting Officer," shall be appropriately modified to preserve the Government's rights.
- g. Remedies. For breach of any of the above prescriptions or for intentional nondisclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations as necessarily imply bad faith, the Government may terminate the contract for default, disqualify the Contractor from subsequent contractual efforts, and pursue other remedies as may be permitted by law or this contract.
- h. Waiver. A request for waiver under this clause shall be directed in writing through the Contracting Officer to the Executive Director for Operations (EDO) in accordance with the procedures outlined in §20-1.5411.

# H.7 Government Furnished Property/Materials

- a. The NF.C will provide the Contractor with drawings, specifications, management plans, schedules, and other information required to accomplish the work described in each Task Order issued hereunder, as appropriate.
- b. Only the property/materials listed above will be provided by the Government. This property is subject to the provisions of the Government Property clause under this contract. All other property/material required in performance of the contract shall be furnished by the Contractor.

PART II - CONTRACT CLAUSES

Section I - Contract Clauses

52.233-3 PROTEST AFTER AWARD (JUN 1985)

(a) Upon receipt of a notice of protest (as defined in 33.101 of the FAR) the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this

clause. Upon receipt of the order, the Contractor shall immediately comply with its term, and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either—

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any

part of this contract: and

(2) The Contractor requests an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the request at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at

the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not

affected by action taken under this clause.

(End of Clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE. (APR 1984)

This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

Section E

52.246-5 INSPECTION OF SERVICES--COST-REIMBURSEMENT. (APR 1984)

Section F

52.212-13 STOP-WORK ORDER. (APR 1984) -- Alternate I (APR 1984)

#### Section I

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52.202-1 DEFINITIONS. (APR 1984)
52.203-1 OFFICIALS NOT TO BENEFIT. (APR 1984)
52.203-3 GRATUITIES. (APR 1984)
52.203-5 COVENANT AGAINST CONTINGENT FEES. (APR 1984)
52.215-1 EXAMINATION OF RECORDS BY COMPTROLLER GENERAL. (APR 1984)
52.215-2 AUDIT--NEGOTIATION. (APR 1984)
52.215-22 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA. (APR
               1984)
52.215-24 SUBCONTRACTOR COST OR PRICING DATA. (APR 1985)
52.215-33 ORDER OF PRECEDENCE. (JAN 1986)
52.216-7 ALLOWABLE COST AND PAYMENT. (APR 1984)
52.216-8 FIXED FEE. (APR 1984)
52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL
              DISADVANTAGED BUSINESS CONCERNS. (JUN 1985)
52.219-13 UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES. (AUG 1986)
52.220-3 UTILIZATION OF LABOR SURPLUS AREA CONCERNS. (APR 1984)
52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES. (APR 1984)
52.222-3 CONVICT LABOR. (APR 1984)
52.222-26 EQUAL OPPORTUNITY. (APR 1984)
52.222-35
               AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA
               VETERANS (APR 1984)
52.222-36
           AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (APR 1984)
52.223-2 CLEAN AIR AND WATER. (APR 1984)
52.227-1 AUTHORIZATION AND CONSENT. (APR 1984)
52.227-2 NOTICE AND ASSISTANCE, REGARDING PATENT AND COPYRIGHT
               INFRINGEMENT. (APR 1984)
52,227-11 PATENT RIGHTS -- RETENTION BY THE CONTRACTOR (SHORT FORM).
               (APR 1984)
52,228-7 INSURANCE LIABILITY TO THIRD PERSONS. (APR 1984)
52.230-3 COST ACCOUNTING STANDARDS. (AUG 1986)
52.230-4 ADMINISTRATION OF COST ACCOUNTING STANDARDS. (APR 1984)
52.230-5 DISCLOSURE AND CONSISTENCY OF COST ACCOUNTING PRACTICES.
               (AUG 1986)
52.232-17 INTEREST. (APR 1984)
52.232-22 LIMITATION OF FUNDS. (APR 1984)
52.232-23 ASSIGNMENT OF CLAIMS. (JAN 1986)
52.233-1 DISPUTES. (APR 1984)
52.242-1 NOTICE OF INTENT TO DISALLOW COSTS. (APR 1984)
52.243-2 CHANGES--COST-REIMBURSEMENT. (APR 1984)--Alternate II.
               (APR 1984)
          SUBCONTRACTS (COST-REIMBURSEMENT AND LETTER CONTRACTS)
52.244-2
               (JUL 1985)
52.244-5 COMPETITION IN SUBCONTRACTING. (APR 1984)
52.245-5 GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL,
               OR LABOR-HOUR CONTRACTS). (JAN 1986)
52.246-25 LIMITATION OF LIABILITY -- SERVICES. (APR 1984)
52.247-63 PREFERENCE FOR U.S.-FLAG AIR CARRIERS. (APR 1984)
52.249-6 TERMINATION (COST-REIMBURSEMENT). (MAY 1986)
52.249-14 EXCUSABLE DELAYS. (APR 1984)
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PART 111 - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

Section J - List of Attachments

### J.1 Attachments

Attachment Number	Title
1	NRC Contractor Organizational Conflicts of Interest (41 CFR Part 20)
2	Billing Instructions
3	NRC Manual Chapter 3202
4	Standard Form 1411 with Instructions

PART IV - REPRESENTATIONS AND INSTRUCTIONS

Section K - Representations, Certifications and Other Statements of Offerors or Ouoters

K. Organizational Conflicts of Interest

I represent to the best of my knowledge and belief that:

The award to  $\frac{}{}$  of a contract or the modification of an existing contract does / or does not / / involve situations or relationships of the type set forth in 41 CFR § 20-1.5403(b)(1).

Instructions to offerors. The following shall be included in all NRC solicitations: (1) If the representation as completed indicates that situations or relationships of the type set forth in 41 CFR § 20-1.5403(b)(1) are involved or the Contracting Officer otherwise determines that potential organizational conflicts exist, the offeror shall provide a statement in writing which describes in a concise manner all relevant factors bearing on his representation to the contracting officer. If the contracting officer determines that organizational conflicts exist, the following actions may be taken:

- (i) Impose appropriate conditions which avoid such conflicts,
- (ii) Disqualify the offeror, or
- (iii) Determine that it is otherwise in the best interest of the United States to seek award of the contract under the waiver provisions of § 20-1.5411.

(2) The refusal to provide the representation required by §20-1.5404(h) or upon request of the contracting officer the facts required by §20-1.5404(c), shall result in disqualification of the offeror for award. The nondisclosure or misrepresentation of any relevant interest may also result in the disqualification of the offeror for award; or if such nondisclosure or misrepresentation is discovered after award, the resulting contract may be terminated. The offeror may also be disqualified from subsequent related NRC contracts and be subject to such other remedial actions provided by law or the resulting contract.

The offeror may, because of actual or potential organizational conflicts of interest, propose to exclude specific kinds of work from the statements of work contained in a RFP unless the RFP specifically prohibits such exclusion. Any such proposed exclusion by an offeror will be considered by the NRC in the evaluation of proposals. If the NRC considers the proposed excluded work to be an essential or integral part of the required work and its exclusion would work to the detriment of the competitive posture of the other offerors, the proposal must be rejected as unacceptable.

The offeror's failure to execute the representation required by subsection (b) above with respect to invitation for bids will be considered to be a minor informality, and the offeror will be permitted to correct the omission.

## K. FAR Provisions

52.203-4 CONTINGENT FEE REPRESENTATION AND AGREEMENT. (APR 1984)

(a) Representation. The offeror represents that, except for full-time bona

fide employees working solely for the offeror, the offeror --

Note: The offeror must check the appropriate boxes. For interpretation of the representation, including the term "bona fide employee," see Subpart 3.4 of the Federal Acquisition Regulation.

(1) / / has, / / has not employed or retained any person or company to

solicit or obtain this contract; and

(2) / / has, / / has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(b) Agreement. The offeror agrees to provide information relating to the above Representation as requested by the Contracting Officer and, when subparagraph (a)(1) or (a)(2) is answered affirmatively, to promptly submit to the Contracting Officer--

(1) A completed Standard Form 119, Statement of Contingent or Other

Fees, (SF 119); or

(2) A signed statement indicating that the SF 119 was previously submitted to the same contracting office, including the date and applicable solicitation or contract number, and representing that the prior SF 119 applies to this offer or quotation.

(End of provision) (R 7-2002.1 1974 APR) (R 1-1.505)

52.215-6 TYPE OF BUSINESS ORGANIZATION. (APR 1984)

The offeror or quoter, by checking the applicable box, represents that it operates as / / a corporation incorporated under the laws of the State of ......, / / an individual, / / a partnership, / / a nonprofit organization, or / / a joint venture.

(End of provision) (AV SF 33 1977 MAR) (R SF 19B, Para 4, 1976 JUNE)

52.215-11 AUTHORIZED NEGOTIATORS. (APR 1984)

The offeror or quoter represents that the following persons are authorized to negotiate on its behalf with the Government in connection with this request for proposals or quotations:

Name

Title

Telephone Number

(End of provision)
(R 3-501(b) Sec K (iv))

52.215-19 PERIOD FOR ACCEPTANCE OF OFFER. (APR 1984)

In compliance with the solicitation, the offeror agrees, if this offer is accepted within.....calendar days (60 calendar days unless a different period is inserted by the offeror) from the date specified in the solicitation for receipt of offers, to furnish any or all items on which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the Schedule.

(End of provision) (R SF 33 1977 MAR)

52.215-20 PLACE OF PERFORMANCE. (APR 1984)

(a) The offeror or quoter, in the performance of any contract resulting from this solicitation, / / intends, / / does not intend (check applicable block) to use one or more plants or facilities located at a different address from the address of the offeror or quoter as indicated in this proposal or quotation.

#### PART 20-1 -- GENERAL

Subpart 20-1.54--Contractor Organizational Conflicts of Interest

Sec. 20-1.5401 Scope and policy. 20-1.5402 Definitions. Criteria for recognizing contractor organizational 20-1.5403 conflicts of interest. Representation. 20-1.5404 20-1.5405 Contract clauses. 20-1-5405-1 General contract clause. Special contract provisions. 20-1.5405-2 20-1.5406 Evaluation, findings, and contract award. 20-1.5407 Conflicts identified after award. 20-1.5408 (Reserved) 20-1.5409 (Reserved) 20-1.5410 Subcontractors. 20-1.5411 Waiver. 20-1.5412 Remedies.

AUTHORITY: Sec. 8, Pub. L. 95-601, adding Sec. 170A to Pub. L. 83-703, 68 Stat. 919, as amended (42 U.S.C. ch. 14)

### \$20-1.5401 Scope and Policy

- (a) It is the policy of the U.S. Nuclear Regulatory Commission (NRC) to avoid, eliminate or neutralize contractor organizational conflicts of interest. The NRC achieves this objective by requiring all prospective contractors to submit information describing relationships, if any, with organizations or persons (including those regulated by NRC) which may give rise to actual or potential conflicts of interest in the event of contract award.
- (b) Contractor conflict of interest determinations cannot be made automatically or routinely; the application of sound judgment on virtually a case-by-case basis is necessary if the policy is to be applied so as to satisfy the overall public interest. It is not possible to prescribe in advance a specific method or set of criteria which would serve to identify and resolve all of the contractor conflict of interest situations which might arise; however, examples are provided in these regulations to guide application of the policy. NRC contracting and program officials must be alert to other situations which may warrant application of this policy guidance. The ultimate test is: Might the contractor, if awarded the contract, be placed in a position where its judgment may be biased, or where it may have an unfair competitive advantage?
- (c) The conflict of interest rule contained in this subpart applies to contractors and offerors only. Individuals or firms who have other relationships with NRC (e.g., parties to a licensing proceeding) are not covered by this regulation. This rule does not apply to the acquisition of consulting services through the personnel appointment process, NRC

agreements with other government agencies, international organizations, or state, local or foreign governments; separate procedures for avoiding conflicts of interest will be employed in such agreements, as appropriate.

#### \$20-1.5402 Definitions

- (a) "Organizational conflicts of interest" means that a relationship exists whereby a contractor or prospective contractor has present or planned interests related to the work to be performed under an NRC contract which: (1) May diminish its capacity to give impartial, technically sound, objective assistance and advice or may otherwise result in a biased work product, or (2) may result in its being given an unfair competitive advantage.
- (b) "Research" means any scientific or technical work involving theoretical analysis, exploration, or experimentation.
- (c) "Evaluation activities" means any effort involving the appraisal of a technology, process, product, or policy.
- (d) "Technical consulting and management support services" means internal assistance to a component of the NRC in the formulation or administration of its programs, projects, or policies which normally require the contractor to be given access to information which has not been made available to the public or proprietary information. Such services typically include assistance in the preparation of program plans; and preparation of preliminary designs, specifications, or statements of work.
- (e) "Contract" means any contract, agreement, or other arrangement with the NRC except as provided in Section 20-1.5401(c).
- (f) "Contractor" means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, affiliates thereof, or their successors in interest, including their chief executives, directors, key personnel (identified in the contract), proposed consultants or subcontractors, which is a party to a contract with the NRC.
- (g) "Affiliates" means business concerns which are affiliates of each other when either directly or indirectly one concern or individual controls or has the power to control another, or when a third party controls or has the power to control both (41 CFR § 1-1.606-1(e)).
- (h) "Subcontractor" means any subcontractor of any tier which performs work under a contract with the NRC except subcontracts for supplies and subcontracts in amounts of \$10,000 or less.
- (i) "Prospective contractor" or "offeror" means any person, firm, unincorporated association, joint venture, partnership, corporation, or affiliates thereof, including its chief executive, directors, key personnel (identified in the proposal), proposed consultants, or subcontractors, submitting a bid or proposal, solicited or unsolicited, to the NRC to obtain a contract.

- (j) "Potential conflict of interest" means that a factual situation exists that suggests (indicates) that an actual conflict of interest may arise from award of a proposed contract. The term "potential conflict of interest" is used to signify those situations which merit investigation prior to contract award in order to ascertain whether award would give rise to an actual conflict or which must be reported to the contracting officer for investigation if they arise during contract performance.
  - § 20-1.5403 Criteria for recognizing contractor organizational conflicts of interest
- (a) General. Two questions will be asked in determining whether actual or potential organizational conflicts of interest exist: (1) Are there conflicting roles which might bias a contractor's judgment in relation to its work for the NRC? (2) May the contractor be given an unfair competitive advantage based on the performance of the contract? The ultimate determination by NRC as to whether organizational conflicts of interest exist will be made in light of common sense and good business judgment based upon the relevant facts disclosed and the work to be performed. While it is difficult to identify and to prescribe in advance a specific method for avoiding all of the various situations or relationships which might involve potential organizational conflicts of interest, NRC personnel will pay particular attention to proposed contractual requirements which call for the rendering of advice, consultation or evaluation activities, or similar activities that lay direct groundwork for the NRC's decisions on regulatory activities, future procurements, and relearch programs.
- (b) Situations or relationships which may give rise to organizational conflicts of interest. (1) The offeror or contractor shall disclose information concerning relationships which may give rise to organizational conflicts of interest under the following circumstances:
- (1) Where the offeror or contractor provides advice and recommendations to the NRC in a technical area in which it is also providing consulting assistance in the same area to any organization regulated by the NRC.
- (11) Where the offeror or contractor provides advice to the NRC on the same or similar matter in which it is also providing assistance to any organization regulated by the NRC.
- (iii) Where the offeror or contractor evaluates its own products or services, or the products or services of another entity where the offeror or contractor has been substantially involved in their development or marketing.
- (iv) Where the award of a contract would otherwise result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC or may otherwise result in an unfair competitive advantage for the offeror or contractor.

- (2) The contracting officer may request specific information from an offeror or contractor or may require special contract provisions such as provided in § 20-1.5405-2 in the following circumstances:
- (i) Where the offeror or contractor prepares specifications which are to be used in competitive procurements of products or services covered by such specifications.
- (ii) Where the offeror or contractor prepares plans for specific approaches or methodologies that are to be incorporated into competitive procurements using such approaches or methodologies.
- (iii) Where the offeror or contractor is granted access to information not available to the public concerning NRC plans, policies, or programs which could form the basis for a later procurement action.
- (iv) Where the offeror or contractor is granted access to proprietary information of its competitors.
- (v) Where the award of a contract might otherwise result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC or may otherwise result in an unfair competitive advantage for the offeror or contractor.
- (c) Policy application guidance. The following examples are illustrative only and are not intended to identify and resolve all contractor organizational conflict of interest situations. (1) Example. The XYZ Corp., in response to a request for proposal (RFP), proposes to undertake certain analyses of a reactor component as called for in the RFP. The XYZ Corp. is one of several companies considered to be technically well qualified. In response to the inquiry in the RFP, the XYZ Corp. advises that it is currently performing similar analyses for the reactor manufacturer.

Guidance. An NRC contract for that particular work normally would not be awarded to the XYZ Corp. because it would be placed in a position in which its judgment could be biased in relationship to its work for NRC. Since there are other well-qualified companies available, there would be no reason for considering a waiver of the policy.

(2) Example. The ABC Corp., in response to a RFP, proposes to perform certain analyses of a reactor component which are unique to one type of advanced reactor. As is the case with other technically qualified companies responding to the RFP, the ABC Corp. is performing various projects for several different utility clients. None of the ABC Corp. projects have any relationship to the work called for in the RFP. Based on the NRC evaluation, the ABC Corp. is considered to be the best qualified company to perform the work outlined in the RFP.

Guidance. An NRC contract normally could be awarded to the ABC Corp. because no conflict of interest exists which would motivate bias with respect to the work. An appropriate clause would be included in the contract to preclude the ABC Corp. from subsequently contracting for work during the performance of the NRC contract with the private sector which could create a conflict. For example, ABC Corp. would be precluded from the performance of similar work for the company developing the advanced reactor mentioned in the example.

(3) Example. As a result of operating problems in a certain type of commercial nuclear facility, it is imperative that NRC secure specific data on various operational aspects of that type of plant so as to assure adequate safety protection of the public. Only one manufacturer has extensive experience with that type of plant. Consequently, that company is the only one with whom NRC can contract which can develop and conduct the testing programs required to obtain the data in reasonable time. That company has a definite interest in any NRC decisions that might result from the data produced because those decisions affect the reactor's design and thus the company's costs.

Guidance. This situation would place the manufacturer in a role in which its judgment could be biased in relationship to its work for NRC. Since the nature of the work required is vitally important in terms of NRC's responsibilities and no reasonable alternative exists, a waiver of the policy may be warranted. Any such waiver shall be fully documented and coordinated in accordance with the waiver provisions of this policy with particular attention to the establishment of protective mechanisms to guard against bias.

(4) Example. The ABC Co. submits a proposal for a new system for evaluating a specific reactor component's performance for the purpose of developing standards that are important to the NRC program. The ABC Co. has advised NRC that it intends to sell the new system to industry once its practicability has been demonstrated. Other companies in this business are using older systems for evaluation of the specific reactor component.

Guidance. A contract could be awarded to the ABC Co. provided that the contract stipulates that no information produced under the contract will be used in the contractor's private activities unless such information has been reported to NRC. Information which is reported to NRC by contractors will normally be disseminated by NRC to others so as to preclude an unfair competitive advantage that might otherwise accrue. When NRC furnishes information to the contractor for the performance of contract work, it shall not be used in the contractor's private activities unless such information is generally available to others. Further, the contract will stipulate that the contractor will inform the NRC contracting officer of all situations in which the information developed under the contract is proposed to be used.

(5) Example. The ABC Corp., in response to a RFP proposes to assemble a map showing certain seismological features of the Appalachian fold belt. In accordance with the representation in the RFP and \$20-1.5403(b)(1)(i), ABC Corp. informs the NRC that it is presently doing seismological studies for several utilities in the Eastern United States but none of the sites are within the geographic area contemplated by the NRC study.

Guidance. The contracting officer would normally conclude that award of a contract would not place ABC Corp. in a conflicting role where its judgment might be biased. The work for others clause of \$20-1.5405-1(c) would preclude ABC Corp. from accepting work during the term of the NRC contract which could create a conflict of interest.

- (d) Other considerations. (1) The fact that the NRC can identify and later avoid, eliminate, or neutralize any potential organizational conflicts arising from the performance of a contract is not relevant to a determination of the existence of such conflicts prior to the award of a contract.
- (2) It is not relevant that the contractor has the professional reputation of being able to resist temptations which arise from organizational conflicts of interest, or that a follow-on procurement is not involved, or that a contract is awarded on a competitive or a sole source basis.

### \$20-1.5404 Representation

- (a) The following procedures are designed to assist the NRC contracting officer in determining whether situations or relationships exist which may constitute organizational conflicts of interest with respect to a particular offeror or contractor.
- (b) Representation procedure. The following organizational conflicts of interest representation provision shall be included in all solicitations and unsolicited proposals for: (1) Evaluation services or activities; (2) technical consulting and management support services; (3) research; and (4) other contractual situations where special organizational conflicts of interest provisions are noted in the solicitation and would be included in the resulting contract. This representation requirement shall also apply to all modifications for additional effort under the contract except those issued under the "changes" clause. Where, however, a statement of the type required by the organizational conflicts of interest representation provision has previously been submitted with regard to the contract being modified, only an updating of such statement shall be required.

## ORGANIZATIONAL CONFLICTS OF INTEREST REPRESENTATION

I represent to the best of my knowledge and belief that:

The award to \_\_\_\_\_\_ of a contract or the modification of an existing contract does ( ) or does not ( ) involve situations or relationships of the type set forth in 41 CFR § 20-1.5403(b)(1).

- (c) Instructions to offerors. The following shall be included in all NRC solicitations: (1) If the representation as completed indicates that situations or relationships of the type set forth in 41 CFR \$20-1.5403(b)(1) are involved, or the contracting officer otherwise determines that potential organizational conflicts exist, the offeror shall provide a statement in writing which describes in a concise manner all relevant facts bearing on his representation to the contracting officer. If the contracting officer determines that organizational conflicts exist, the following actions may be taken: (1) Impose appropriate conditions which avoid such conflicts, (ii) disqualify the offeror, or (iii) determine that it is otherwise in the best interest of the United States to seek award of the contract under the waiver provisions of \$20-1.5411.
- (2) The refusal to provide the representation required by § 20-1.5404(b) or upon request of the contracting officer the facts required by § 20-1.5404(c), shall result in disqualification of the offeror for award. The nondisclosure or misrepresentation of any relevant interest may also result in the disqualification of the offeror for award; or if such nondisclosure or misrepresentation is discovered after award, the resulting contract may be terminated. The offeror may also be disqualified from subsequent related NRC contracts and be subject to such other remedial actions provided by law or the resulting contract.
- (d) The offeror may, because of actual or potential organizational conflicts of interest, propose to exclude specific kinds of work from the statements of work contained in a RFP unless the RFP specifically prohibits such exclusion. Any such proposed exclusion by an offeror will be considered by the NRC in the evaluation of proposals. If the NRC considers the proposed excluded work to be an essential or integral part of the required work and its exclusion would work to the detriment of the competitive posture of the other offerors, the proposal must be rejected as unacceptable.
- (e) The offeror's failure to execute the representation required by subsection (b) above with respect to invitation for bids will be considered to be a minor informality, and the offeror will be permitted to correct the omission.
  - 5 20-1.5405 Contract clauses
  - § 20-1.5405-1 General contract clause

All contracts of the types set forth in § 20-1.5404(b) shall include the following clauses:

- (a) Purpose. The primary purpose of this clause is to aid in ensuring that the contractor: (1) Is not placed in a conflicting role because of current or planned interest (financial, contractual, organizational, or otherwise) which relate to the work under this contract, and (2) does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.
- (b) Scope. The restrictions described herein shall apply to performance or participation by the contractor as defined in 41 CFR \$20-1.5402(f) in the actitities covered by this clause.
- (c) Work for others. Notwithstanding any other provision of this contract, during the term of this contract, the contractor agrees to forego entering into consulting or other contractual arrangements with any firm or organization, the result of which may give rise to a conflict of interest with respect to the work being performed under this contract. The contractor shall ensure that all employees who are employed full time under this contract and employees designated as key personnel, if any, under this contract abide by the provision of this clause. If the contractor believes with respect to itself or any such employee that any proposed consultant or other contractual arrangement with any firm or organization may involve a potential conflict of interest, the contractor shall obtain the written approval of the contracting officer prior to execution of such contractual arrangement.
- (d) Disclosure after award. (1) The contractor warrants that to the best of its knowledge and belief and except as otherwise set forth in this contract, it does not have any organizational conflicts of interest, as defined in 41 CFR \$20-1.5402(a).
- (2) The contractor agrees that if after award it discovers organizational conflicts of interest with respect to this contract, it shall make an immediate and full disclosure in writing to the contracting officer. This statement shall include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. The NRC may, however, terminate the contract for convenience if it deems such termination to be in the best interests of the government.
- (e) Access to and use of information. (1) If the contractor in the performance of this contract obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (Pub. L. 93-579), or data which has not been released to the public, the contractor agrees not to: (1) Use such information for any private purpose until the information has been released to the public; (ii) compete for work for the Commission based

on such information for a period of six (6) months after either the completion of this contract or the release of such information to the public, whichever is first, (iii) submit an unsolicited proposal to the government based on such information until one year after the release of such information to the public, or (iv) release the information without prior written approval by the contracting officer unless such information has previously been released to the public by the NRC.

- (2) In addition, the contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (Pub. L. 93-579), or other confidential or privileged technical, business, or financial information under this contract, the contractor shall treat such information in accordance with restrictions placed on use of the information.
- (3) The contractor shall have, subject to patent and security provisions of this contract, the right to use technical data it produces under this contract for private purposes provided that all requirements of this contract have been met.
- (f) Subcontracts. Except as provided in 41 CFR §20-1.5402(h), the contractor shall include this clause, including this paragraph, in subcontracts of any tier. The terms "contract," "contractor," and "contracting officer," shall be appropriately modified to preserve the government's rights.
- (g) Remedies. For breach of any of the above proscriptions or for intentional nondisclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations as necessarily imply bad faith, the government may terminate the contract for default, disqualify the contractor from subsequent contractual efforts, and pursue other remedies as may be permitted by law or this contract.
- (h) Waiver. A request for waiver under this clause shall be directed in writing through the contracting officer to the Executive Director for Operations (EDO) in accordance with the procedures outlined in § 20-1.5411.
  - \$ 20-1.5405-2 Special contract provisions.
- (a) If it is determined from the nature of the proposed contract that organizational conflicts of interest exist, the contracting officer may determine that such conflict can be avoided or after obtaining a waiver in accordance with \$20-1.5411, neutralized through the use of an appropriate special contract provision. If appropriate, the offeror may negotiate the terms and conditions of these clauses, including the extent and time period of any such restriction. These provisions include but are not limited to:

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- (1) Hardware exclusion clauses which prohibit the acceptance of production contracts following a related nonproduction contract previously performed by the contractor;
  - (2) Software exclusion clauses;
- (3) Clauses which require the contractor (and certain of his key personnel) to avoid certain organizational conflicts of interest; and
- (4) Clauses which provide for protection of confidential data and guard against its unauthorized use.
- (b) The following additional contract clause may be included as section (') in the clause set forth in § 20-1.5405-1 when it is determined that award of a follow-on contract would constitute an organizational conflict (f interest.
- (i) follow-on effort. (1) The contractor shall be ineligible to participate in NRC contracts, subcontracts, or proposals therefor (solicited or unsolicited) which stem directly from the contractor's performance of work under this contract. Furthermore, unless so directed in writing by the contracting officer, the contractor shall not perform any technical consulting or management support services work or evaluation activities under this contract on any of its products or services or the products or services of another firm if the contractor has been substantially involved in the development or marketing of such products or services.
- (2) If the contractor under this contract prepares a complete or essentially complete statement of work or specifications, the contractor shall be ineligible to perform or participate in the initial contractual effort which is based on such statement of work or specifications. The contractor shall not incorporate its products or services in such statement of work or specifications unless so directed in writing by the contracting officer, in which case the restriction in this subparagraph shall not apply.
- (3) Nothing in this paragraph shall preclude the contractor from offering or selling its standard commercial items to the government.
  - 5.20-1.5406 Evaluation, findings, and contract award

The contracting officer will evaluate all relevant facts submitted by an offeror pursuant to the representation requirements of \$20-1.5404(b) and other relevant information. After evaluating this information against the criteria of \$20-1.5403, a finding will be made by the contracting officer whether organizational conflicts of interest exist with respect to a particular offeror. It it has been determined that conflicts of interest exist, then the contracting officer shall either:

( ) Disqualify the offeror from award,

- (b) Avoid or eliminate such conflicts by appropriate measures; or
- (c) Award the contract under the waiver provision of \$20-1.5411.

\$20-1.5407 Conflicts identified after award.

If potential organizational conflicts of interest are identified after award with respect to a particular contractor, the contracting officer determines that such conflicts do, in fact, exist and that it would not be in the best interests of the government to terminate the contract as provided in the clauses required by \$20-1.5405, the contracting officer will take every reasonable action to avoid, eliminate, or, after obtaining a waiver in accordance with \$20-1.5411, neutralize the effects of the identified conflict.

\$20-1.5408 (Reserved)

520-1.5409 (Reserved)

\$20-1.5410 Subcontracts

The contracting officer shall require offerors and contractors to submit a representation statement in accordance with § 20-1.5404(b) from subcontractors and consultants. The contracting officer shall require the contractor to include contract clauses in accordance with § 20-1.5405 in consultant agreements or subcontracts involving performance of work under a prime contract covered by this subsection.

\$ 20-1.5411 Waiver

In the first instance, determination with respect to the need to seek a waiver for specific contract awards shall be made by the contracting officer with the advice and concurrence of the program office director and the Office of Executive Legal Director. Upon the recommendation of the contracting officer, and after consultation with the Office of the General Counsel, the EDO may waive the policy in specific cases if he determines that it is in the best interest of the United States to do so.

Such action shall be strictly limited to those situations in which:
(1) The work to be performed under contract is vital to the NRC program;
(2) the work cannot be satisfactorily performed except by a contractor whose interests give rise to a question of conflict of interest; and (3) contractual and/or technical review and supervision methods can be employed by NRC to neutralize the conflict. For any such waivers, the justification and approval documents shall be placed in the Public Document Room.

\$20-1.5412 Remedies

In addition to such other remedies as may be permitted by law or contract for a breach of the restrictions in this subpart or for any intentional misrepresentation or intentional nondisclosure of any relevant interest required to be provided for this section, the NRC may debar the contractor from subsequent NRC contracts.

Dated at Washington, D.Cthis 27th day of March 1979.

For the Nuclear Regulatory Commission

Secretary of the Commission

# BILLING INSTRUCTIONS FOR NRC COST-TYPE CONTRACTS

General. The contractor shall submit vouchers for cost-reimbursement in the manner and format described herein and as illustrated in the sample voucher.

Number of Copies. An original and two copies should be mailed to the NRC office identified below.

Frequency. The contractor shall submit claims for reimbursement once each month unless otherwise authorized by the Contracting Officer.

Form. Claims shall be submitted on the Form DC-3 "Voucher for Furchases and Services Other Than Personal." These forms are available from the Contracting Officer. (The instructions for preparation and itemization of the voucher are shown on the form.)

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

Currency. Billings may be expressed in the currency normally used by the contractor in maintaining his accounting records; payments will be made in that currency. However, the U. S. dollar equivalent for all invoices paid under the contract may not exceed the total U. S. dollars authorized in the contract.

Supersession. These instructions supersede all previous billing instructions.

# INSTRUCTIONS FOR PREPARING COST INFORMATION FOR NRC CONTRACTS

Preparation and Itemization of the Voucher. The contractor shall furnish the information set forth in the explanatory notes below. These notes are keyed to the entries on the sample voucher.

Payor's Name and Address. (i) Address the original voucher (with 2 copies) to: U.S. Nuclear Regulatory Commission, Division of Accounting and Finance, Office of Resource Management, ATTN: GOV/COM Accounts Section, Washington, D.C. 20555.

Any questions regarding vouchers yet to be paid by the NRC should be addressed to Division of Accounting (301-492-7535). Any questions regarding vouchers for which payment has been received (either in full or partially with suspensions or disallowances) should be addressed to the Contracting Officer.

Payee's Name and Address. Show the name of the contractor as it appears in the contract and its correct address; except when an approved assignment has been made by the contractor, or a different payee or addressee has been designated, then insert the name and address of the payee Indicate the individual responsible for answering any questions N/C may have regarding the invoice (name and phone number).

- (a) Contract Number Insert the NRC contract number.
- (b) <u>Title of Project</u> List the full title of the project being performed under this contract.
- (c) Voucher Number Insert the appropriate serial number of the voucher beginning with 001 for this contract. Contractors may also include individual internal accounting numbers in addition to the three digit number.
- (d) Date of Voucher Insert the date the voucher is prepared.
- (e) Contract Amount Insert the total estimated cost of the contract, exclusive of fixed-fee.
- (f) Fixed Fee Insert total fixed-fee (where applicable).
- (g) <u>Billing Period</u> Insert the beginning and ending dates (day, month, and year) of the period in which costs were incurred and for which reimbursement is claimed.

- (h) Direct Costs Insert the major cost elements.
  - (1) <u>Direct Labor</u> This consists of salaries and wages paid (or accrued) for direct performance of the contract itemized as follows:

Category Negotiated Hours Billed Rate Total Hours Billed

- (2) Fringe Benefits This represents fringe benefits applicable to direct labor and billed as a direct cost. Where a rate is used, not be identified here.
- (3) Direct Equipment

  tions list each item costing \$500 or more, and having a life expectancy of more than one year. For contractors other than educational expectancy of more than one year. List only those items of equipment for which reimbursement is requested. A reference shall be made to piece of equipment listed in the property schedule of the contract; not covered by the property schedule; or (3) be preceded by an asterisk (\*) if the equipment is below the approval level. Further itemization of vouchers shall only be required for items having specific limitations set forth in the contract.
- (4) Materials, Supplies, and Other Expendable Items These are consumable materials and supplies and equipment other than that described in (3) above.
- (5) Premium Pay This is remuneration in excess of the basic rourly rate. (Requires written approval of Contracting Officer.)
- (6) Consultants' Fee The supporting information must include the name, hourly or daily rate of the consultant and reference the NRC approval (if not specifically approved in the original contract).
- (7) Travel Domestic travel is travel within the United States, its territories, possessions, and Canada; it should be billed separately from foreign travel. Travel costs billed will provide for individual Per Diem, and all supporting information for each trip taken.

All costs associated with each trip must be shown in the following format: (Unless the organization's travel policy has been negotiated and approved by NRC)

Date	Traveler	Destination	Purpose	Cost
From To		From To		
				1. Airfare 2. Rental Car 3. Local Travel 4. Per Diem Days @ \$ 5. Meals: *  Date Breakfast Lunch Dinner  * If not included in Per Diem. 6. Tips, Misc. (Itemize if more than \$10,00)

- (8) <u>Subcontracts</u> Include all costs paid to approved subcontractors during billing period. This includes the details of the subcontract terms (i.e., cost-plus fixed-fee, direct labor, indirect costs, travel, profit, etc.)
- (9) Other List all other direct costs by cost elements and dollar amount separately.
- (i) Indirect Costs--Overhead Cite the formula (rate and base) in effect during the time the cost was incurred and for which reimbursement is claimed.
- (j) <u>Fixed-Fee</u> If the contract provides for a fixed-fee, it must be claimed as provided for by the contract. Cite the formula or method of computation. Contractor may bill for fixed fee only up to 85% of total fee.
- (k) Amount Billed for Current Period Insert the amount billed for the major cost elements, adjustment, and adjusted amounts for the period.

- (1) Cumulative Amount from Inception to Date of this Billing Insert the cumulative amounts billed for the major cost elements and adjusted amounts claimed during this contract.
- (m) Total Amounts Claimed Insert the total amounts claimed for the current and cumulative periods.
- (n) Adjustments This includes amounts conceded by the contractor, outstanding suspensions, and disapprovals subject to appeal.
- (o) Grand Totals

	MORNING CO.	LE VOUCHER	
Payor's Name and he U.S. Nuclear Division of Accou office of Resource	Regulatory Commission	(a) Contract Number (b) Title of Project Concepts"	n NRC-10-81-624 ct "Study of Nuclear Waste
ttention: GOV/Co	OM Accts Section	Concepts	
ashington, D.C.	20555		
ayee's Name and A	Address	(c) Voucher Number	003
SC CORPORATION	The National Rank	(d) Date Voucher Pr	epared 10/18/82
on main screet of	Assignee for ABC CORP. Anywhere, U.S.A.	(e) Total Estimated \$350,000.00	A STATE OF THE PROPERTY OF THE
ddiividual to Con garding This Vou me: Harry Mu	cher:	(f) Tstal Fixed-Fee \$17,500.00	
1. No.: 215-321- This voucher r	ppresents reimburseable co	sts from <u>3/1/82</u>	thru3/30/82
		Amo	unt Billed
0		(k) Current Period	(1) Inception to Date
Direct Costs (1) Direct L		60.400	
	enefits @16.5%	\$2,400	\$6,800
(if comp	outed as percentage)	600	1,200
(3) Direct	от при	5 000	
(4) Equipmen	s, Supplies and	5,000	3,000
Uther E	pendable Items *	2,000	4.000
(5) Premium	Pay	100	150
(6) Consulta		100	100
(7) <u>Travel</u> -	Domestic * Foreign	200	200
(8) Subcontr		200	200
(9) Other Co		200 3.000	9.000
***************************************	Total Direct Costs	\$13,600	\$29.650
A) Overhead 10	O : of Total Direct Costs	AND AND ADDRESS OF THE PARTY OF	and stages report to the componental Advances
(Indicate Ba	ise)	\$13,600	\$29,650
THE RESIDENCE OF THE PARTY OF T	Subtotal	\$27.200	\$59,300
	Uministrative Expense	3,264	6.4%()
12% of Cos	t Elements Nos. 1-9. A	\$30,464	
FINED SEE TIME	Total Costs	Professional State of the Contract of the Cont	\$65,750
FIXED-FEE EARNED		1.5.23	3,400
Total Amounts Cl	aimed	\$31.987	\$69.150
Adjustments Outstanding Su	spensions *	1,700	1,700
THE SERVICE THE SHE			
Grand Totals		\$30,287	\$67.450

## SAMPLE

## SUPPORTING INFORMATION

# 1) Direct Labor - \$2400

Labor Category	Labor Hours Negotiated	Hours Billed	Rate	Total	Cumulative Hours Billed
Senior Engineer I	2400	100	\$14.00	\$1400	975
Engineer	1500	50	\$10.00	\$500	465
Computer Analyst	700	100	\$5.00	\$500	320

# 3) Direct Equipment

Spectrometer - General Electric (as approved in Property Schedule) \$5,000

# 4) Materials, Supplies & Other Expendable Items

10 Radon Tubes @ \$110.00 = \$1100.00

6 Pairs Electrostatic Gloves @ \$150.00 = \$900.00 \$2000.00

# 5) Premium Pay

Walter Murphy - 10 hours @ \$10.00 Per Hour = \$100 (This was approved by NRC in letter duted 3/6/82.)

## 6) Consultants' Fee

Dr. Carney - 1 hour @ \$100 = \$100

## 7) Travel

Date		Traveler	Destination	Purpose	Costs
From	To		From To		
3/1/82	3/6/82	William King	Chicago, Wash., Il DC	Meeting with Project Officer	1) Airfare \$80.00 2) Rental Car \$15.00 4) Per Diem - 2 Days @ \$50.00 = \$100.00 6) Tips, Misc. \$5.00

TOTAL: \$200

# 8) Subcontracts

XYZ CORP. (CPFF)

# (j) Fixed-Fee (Formula)

(5%)

 $$350,000 \times 5\% = $17,500 \text{ Total Fixed Fee for this Contract}$  $$27,200 \times 5\% = $1360 \text{ Fee Billed for this Period}$ 

# (n) Adjustments

\$1700 - Indicates amount withheld from voucher #001, now approved by Contracting Officer letter 3/10/82.

Form NRC-489 (1-75)

# U. S. NUCLEAR REGULATORY COMMISSIO" NRC MANUAL

#### TRANSMITTAL NOTICE

CHAPTER NRC-3202 PUBLICATION OF UNCLASSIFIED REGULATORY AND TECHNICAL DOCUMENTS PREPARED BY NRC CONTRACTORS, INCLUDING REPORTS PREPARED UNDER OR PURSUANT TO INTERAGENCY AGREEMENTS

SUPERSEDED:		TRANSMITTED:	
Number	Date	Number	Date
		TN 3200-3	ALL PROPERTY AND THE PR
Chapter		Chapter NRC-3202	1/25/78
Page	ANNUAL STREET,	Page	
The second section of the section of th	CONTRACTOR OF THE PARTY OF THE	-consection. Total discontinuous analysis prior $\mu$ , indicated	Management Assessment
Appendix		Appendix NRC-3202	1/25/78

#### REMARKS:

This chapter and appendix establish responsibilities, basic requirements, standards and procedures for the documentation, production and dissemination of regulatory and technical reports prepared by NRC consultants and by NRC contractors and their subcontractors, including reports prepared under or pursuant to interagency agreements.

# U. S. NUCLEAR REGULATORY COMMISSION NRC MANUAL

Volume: 3000 Information and Foreign Activities

Part : 3200 Technical Information and Document Control

ADM

Chapter 3202

PUBLICATION OF UNCLASSIFIED REGULATORY AND TECHNICAL DOCUMENTS PREPARED BY NRC CONTRACTORS, INCLUDING REPORTS PREPARED UNDER OR PURSUANT TO INTERAGENCY AGREEMENTS

#### 3202-01 COVERAGE

This chapter and its appendix handbook establish responsibilities, basic requirements, standards and procedures for the documentation, production and dissemination of regulatory and technical reports prepared by NRC consultants and by NRC contractors and their subcontractors, including reports prepared under or pursuant to interagency agreements. These reports are hereafter referred to as contractor documents. This chapter does not cover NRC staff-generated documents, environmental impact statements, NRC docket material, or the documents generated by NRC boards, panels and advisory committees.

### 3202-02 OBJECTIVES

- 02! To assure production of information and reports as required by the Energy Reorganization Act of 1974 and the Freedom of Information Act.
- 022 To assure that dissemination of regulatory and technical documents is consistent with requirements for public availability of information on the regulatory process.
- 023 To assure that national security, patent rights, copyrights, and commercial proprietary rights are not compromised by the release, distribution, or dissemination of information from the NRC.
- 024 To assure that formal NRC contractor documents will carry the registered NRC designation NUREG as the prime identification.

## 3202-03 RESPONSIBILITIES AND AUTHORITIES

O31 The Director, Office of Administration, develops and maintains, in consultation with Directors of Offices and Divisions, NRC standards, procedures and guides for the production and dissemination of regulatory and technical contractor documents.

- O32 The Director, Division of Technical Information and Document Control:
- a. develops and administers a central document control system for identifying, printing and distributing contractor documents and responding to requests for them.
- develops and maintains guides and standards for the documentation, formatting, printing, dissemination, and public sale of contractor documents.
- c. assures that a system exists for review of contractor documents for adherence to patent, copyright and security policies prior to dissemination.
- destablishes and administers interagency agreements necessary for the dissemination and public sale of contractor documents and controls the duplication and printing of contractor documents to assure adherence to the Government Printing and Binding Regulations issued by the Joint Committee on Printing (JCP), Congress of the United States.
- e. establishes distribution data banks, maintains official standard distribution lists for automatic distribution of contractor documents, and controls distribution to assure adherence to the Government Printing and Binding Regulations and the Privacy Act (Title 5, U.S.C.).

# 033 Directors, Offices and Divisions:

- a. establish the contract or Standard Order for Work\* provisions, including those required by this chapter and its appendix; Chapter NRC-3203, Distribution of Unclassified NRC Staff- and Contractor-Generated Documents and its appendix; Chapter NRC-0260, Printing and Related Activities and its appendix; and NRC Bulletin 1102-6, Procedure for Placement of Work with DOE (to be issued). In those provisions:
  - (I) specify what documents will be reviewed for policy, management, regulatory and legal issues by NRC staff in draft prior to printing and distribution. If the document is to be reviewed by NRC staff, give the conditions under which the contractor may publish documents in the event of unresolvable differences relative to the draft, including the type of disclaimer to be used in addition to the standard government disclaimer (see Exhibit 6).

\*In the case of DOE work, this is NRC Form 173, Standard Order for DOE Work.

- (2) provide for the reviews necessary to insure that the national security, patent rights, copyrights, and commercial proprietary rights are not compromised by the release or dissemination of documents. If the contractor is to be authorized to make the review, designate the contractor officials who are authorized to sign NRC Form 426 prior to NRC distribution of documents.
- (3) specify that all formal documents carry NUREG numbers as the prime identification, as illustrated in the appendix, and that interim documents include the title page indicated in the appendix.
- (4) specify whether formal documents shall be printed by NRC or the contractor if the contractor has a JCP authorized federal printing plant (see a pendix, part III).
- (5) specify that all formal documents required by NRC shall be distributed by NRC.
- (6) establish the number of copies the contractor may retain or request for internal and external distribution and charge against NRC. Written justification must be provided to the NRC JCP representative when the number exceeds the 50 copies authorized by JCP.
- b. assure adherence to instructions and authorizations regarding the reproduction and distribution of documents.
- c. recommend standard distribution category(ies) and provide standard and incidental distribution lists for contractor documents to the contractor and the Division of Technical Information and Document Control.
- d. provide changes to the official standard and incidental distribution lists to the contractor and the Division of Technical Information and Document Control.
- 034 Director, Office of the Executive Legal Director, provides legal review and advice to NRC staff on questions regarding inventions, patents, and use of copyrighted material.
- O35 Director, Division of Security, provides review of documents to assure that national security interests are not compromised by the release.

# 036 Director, Division of Contracts:

a. coordinates the flow of all documents to and from contractors where such documents may result in alterations in the terms and conditions of applicable contracts as they pertain to document production and distribution.

- b. advises the contractor as to the source and method for obtaining documents required from the government for performance of the contract.
- c. provides contractor with copies of NRC Manual Chapters 3202, 3203 and 0260, when appropriate.
- d. determines that requests for proposals and invitations for bids and subsequent contracts awarded require contractor compliance with Chapter NRC-3202 and the Government Printing and Binding Regulations, when appropriate.

#### 3202-04 DEFINITIONS\*

- 04l camera-ready copy copy ready for printing. This is a colloquial term of long standing that is used even though the printing process may not involve the so-called copy camera (see also reproducible masters).
- 042 central document control system means for developing and maintaining the policies, procedures and guides needed to identify and produce regulatory and technical documents and to assure adherence to requirements and standards for documentation, formatting, printing and distribution.
- 043 commercial proprietary right trade secrets and commercial or financial information obtained from a person and privileged or confidential.
- 044 contractor document a document prepared in accordance with the provisions of a contract or under or pursuant to an interagency agreement.
- 045 copyright "the exclusive, legally secured right to reproduce (as by writing or printing), publish and sell the matter and form of literary, musical or artistic work..." (Webster's Third International Dictionary). Copyrighted material may not be reproduced without the permission of the author or publisher.
- 046 disseminate to announce the publication of documents and make them svailable for free distribution, sale or copying.
- 047 <u>distribute</u> to dispense documents to specific organizations and individuals to assure participation in the regulatory process and support of research and technological investigations. Such distribution may be accomplished by the use of standard distribution data banks established and maintained by the Division of Technical Information and

<sup>\*</sup>Words underscored in definitions are also defined in list.

Document Control based on the requests of the originating Office or Division.

- 048 document a printed record or copy thereof (see also report).
- documentation includes classification and associated required markings, the NRC document number unique to the document, title (and subtitle, if any), author or correspondent (if any), organization identification and contract number (or interagency agreement number), date and availability.
- 0410 formal contractor documents regulatory and technical documents that record the results of contractor or interagency agreement work at principal points in the program. Such documents may include, but are not limited to, quarterly and annual progress reports and final reports. Prior to publication, these documents shall have received the reviews and approvals required by NRC. Such reviews and approvals shall include, but not necessarily be limited to, patent review (if applicable) and security review (if applicable). These reports will carry NUREG designations as the prime identification.
- ments prepared in accordance with contract or interagency agreement requirements for recording plans and results during the course of the work. Such documents may include, but are not limited to, informal progress reports, quick-look reports, data reports, status summary reports, project descriptions, pre-test predictions, model verifications, experiment safety analyses, experiment operating procedures, facility certification reports, and test result reports.
- 0412 NRC program or project sponsor the NRC individual responsible for the performance of a consultant or a contractor and his subcontractor or work performed under or pursuant to an interagency agreement.
- 0413 patent review review by legal staff to assure protection rights in inventions.
- 0414 publicly available documents documents which are available in the NRC Public Document Room (PDR) for public inspection and copying.
- 0415 regulatory and technical documents documents-that have been prepared in support of regulatory investigations and are to become publicly available records. Such documents shall carry unique identification.
- 0416 report a regulatory or technical document that is to be printed and disseminated which carries the bibliographic documentation required for storage and retrieval.
- 0417 reproducible masters camera-ready copy which includes (1) originals of line drawings (or prints that can be copied), (2) glossy

prints of black and white photographs (colored photographs cannot be reproduced), (3) original typed or printed text, tables, cover, title page, contents and abstract, or (4) other forms of the materials listed in (1), (2) and (3) that are acceptable to a printer who will guarantee to prepare reproducible copy therefrom (see appendix, part IV, for guidelines).

0418 unique identification - NRC identification used on a document and its attachments, revisions, and supplements that is not used on any other document.

### 3202-05 BASIC REQUIREMENTS

- Applicability. The provisions of this chapter and its appendix apply to NRC consultants and to NRC contractors and subcontractors, including those working under interagency agreements, whose contracts require the preparation of regulatory and technical documents. Because of the unique requirements of NRC boards, panels and advisory committees which report directly to the Commission, the handling of reports prepared by consultants and contractors to them are governed by the Board or Panel Chairman and, in the case of advisory committees, by the Advisory Committee Management Officer.
- CS2 Forms. NRC Form 426, "Publication Release for Unclassified Forma! NRC Staff, Consultant and Contractor Reports" (Exhibit 5) shall be used as provided in the appendix.
- 053 Appendix 3202. Standards, procedures and methods for managing the production and dissemination of contractor documents are contained in the appendix to this chapter.

## 054 Preparation Requirements.

- Documents to be Printed by NRC. All contractor documents to be printed by NRC shall be prepared according to Appendix 3202. The reproducible masters for the requisite distribution shall be transmitted to the Division of Technical Information and Document Control by the NRC program or project sponsor or the authorized contractor official.
- Documents Printed by Authorized Federal Printing Plants or Duplicated by a Contractor. All contractor documents to be printed or duplicated by the contractor (as specified by the contract, agreement, or standard order for work) shall be prepared according to Appendix 3202, and a reproducible master and sufficient copies for standard and incidental distribution shall be supplied to the Division of Technical Information and Document Control accompanied by completed NRC Form 426 signed by the NRC program or project sponsor or the authorized contractor official.

- 055 References. The NRC manual chapters referenced are available from the Division of Technical Information and Document Control. The other citations are available from the Government Printing Office.
  - a. Chapter NRC 0260, "Printing and Related Activities."
  - b. Chapter NRC 2101, "NRC Security Program."
  - NRC Appendix 2101, Part III, "Control of Classified Information and Documents."
  - d. NRC Appendix 2101, Part VIII, "Physical Protection of Classified NRC Facilities and Matter."
  - e. Chapter NRC 3203, "Distribution of Unclassified NRC Staff- and Contractor-Generated Documents."
  - f. NRC Bulletin 1102-6, "Procedure for Placement of Work with DOE" (to be issued).
  - g. Title 44, U.S. Code, "Public Printing and Documents."
  - h. Government Printing and Binding Regulations of the Joint Committee on Printing, Congress of the United States, No. 24, April 1977 (JCP Regulations).
  - i. Title 5, U.S. Code.

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This appendix provides standards and procedures for the documentation, production and dissemination of regulatory and technical documents that are to be made publicly available and are prepared by contractors or other government agencies in accordance with contract requirements or interagency agreements. It is presented in four parts: Part I - Formal Contractor Documents to be Printed by NRC, Part II - Interim Contractor Documents to be Printed by NRC or Duplicated by Contractor, Part III - Formal Documents to be Printed Under or Pursuant to Interagency Agreements by Agencies with JCP Authorized Federal Printing Plants, and Part IV - Guidelines for Preparation of Manuscripts and Reproducible Copy to be Printed by NRC.

#### PART I

FORMAL CONTRACTOR DOCUMENTS TO BE PRINTED BY NRC

## A. DOCUMENTATION

# 1. Applicability

- a. The requirements of this part apply to contractor and interagency agreement documents that are to be printed by NRC. Contractors, other than DOE laboratories with authorized federal printing plants, may not print reports prepared for NRC.
- b. With respect to classified documents and documents "For Official Use Only," the requirements set forth in this part shall be used in conjunction with Chapter NRC-2101.
- The requirements of this part do not apply to consultants and contractors of the NRC boards, panels, and advisory committees which report directly to the Commission.

# 2. Front Cover and Title Page

a. Separate covers and title pages are required (see Exhibits I and 2 for contractor reports and Exhibits 3 and 4 for reports prepared under or pursuant to interagency agreements).\*

\*Reproducible copy of the cover of the performing organization may be submitted; however, the data elements shown in Exhibit I must be included.

- b. The items shown in Exhibits I through 4 and discussed below shall appear on the title page and cover, as appropriate.\*
  - (I) NRC Document Number. Each document shall be identified by an NRC-controlled alphanumeric number as the prime number unique to that document. The centralized document control system for unique identification is maintained by the Division of Technical Information and Document Control. Numbers may be obtained by calling Division of Technical Information and Document Control or submitting a copy of NRC Form 426 (Exhibit 5) with a request for a number.

The NRC identification number will have the form:

#### NUREG/CR-1234

The contractor's report number, if any, may be inserted below the NUREG number on the title page and cover, as shown in Exhibits I through 4.

When a document consists of more than one volume or binding or is issued in more than one edition, an appropriate volume, supplement, part or revision designation shall appear immediately below the report number.

# (2) Title and Subtitle

- (a) Use a brief title that indicates clearly the subject matter covered in the document.
- (b) When a document is prepared in more than one volume, repeat the primary title on each volume.
- (c) If appropriate, show the type of document (e.g., annual report, final report, thesis, etc.) and the period covered as part of the subtitle.
- (3) Personal Author(s)' Name(s). Authors' names should be given on the title page and cover unless this is impractical, as in the case of annual reports which have many contributors. If authors' contributions are as editors, compilers, etc., so indicate on title

<sup>\*</sup>These requirements meet the specifications of American National Standard ANSI Z39.18-1974, Guidelines for Format and Production of Scientific and Technical Reports, and ANSI Z39.23-1974, Technical Report Numbers.

page following the names. In addition, list affiliation of each author only if affiliated with an organization other than the organization generating the document.

(4) Organization Identification. On the title page and cover, provide information of the type illustrated in Exhibits I through 4.

# (5) Basis for Report Date(s)

- (a) The basis for dating may be shown along with the date on the title page. Various bases for dating are possible; e.g., date document compieted, date reviews completed, date published, date distributed, etc.
- (b) More than one date, with the basis for each, may be shown where this is necessary.

## 3. Availability Information

All formal documents will be made available for sale by NRC and by the National Technical Information Service (NTIS). The following statements will be inserted on the inside of the front cover (Exhibit 6) by the Division of Technical Information and Document Control:

Available from U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Available from National Technical Information Service (NTIS) Springfield, Virginia 22161

## Disclaimer

The following notice will be added during the printing step on the inside front cover (Exhibit 6): "This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, or any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for any third party's use, or the results of such use, of any information, apparatus, product or process disclosed in this report, or represents that its use by such third party would not intringe privately owned rights." The following additional statement, "The views expressed in this report are not necessarily those of the U.S. Nuclear Regulatory Commission" wi" be printed below the standard disclaimer, if appropriate.

### 5. Abstract

An abstract of 200 words or less shall be prepared for each formal document. If the abstract is included in the document, it should appear on a separate page between the table of contents and the text.\*

## B. PATENT AND SECURITY REVIEWS

## Patent Review

Patent in olications shall be considered prior to approval of reports for public release so that disclosure will not adversely affect the patent rights of NRC or the contractor. If the work being reported is contractually managed through another government agency (e.g., DOE laboratories), that government agency should be requested by the contractor to perform the patent review. The result of such review shall be reported on NRC Form 426 in item II (Exhibit 5).

If NRC directly administers the contract or the contractor is unable to obtain a patent clearance from the government agency administering the contract, the responsible NRC contracting officer shall be consulted, and the responsible NRC program or project sponsor shall consider the patent implications. If there is no need for patent review because of the certainty that the document contains no description of novel technical developments which may be of an inventive nature, NRC Form 426 may be completed with the statement "not applicable" or "N/A" in the space for the Patent Counsel's signature. If there is a possibility that there is disclosure of developments of an inventive nature, the contracting officer shall request assistance from the NRC Patent Counsel, Office of the Executive Legal Director

## 2. Security Review

In most cases, contractor reports will be unclassified. Should a report of classified work be required, however, the NRC program or project sponsor must work with the NRC Division of Security to establish the appropriate classification procedures and inform the contractor of such procedures through the contracting officer.

<sup>\*</sup>This preferred positioning of the abstract in the document need not be followed if the style manual of the originating organization requires a different location.

### C. PROCEDURES FOR PRINTING OR DUPLICATING AND DISTRIBUTING

## Printing or Duplicating

Reproducible masters prepared in accordance with this appendix\* shall be transmitted to the Division of Technical Information and Document Confrol, accompanied by completed NRC Form 426 (Exhibit 5). NRC Form 426 must be signed by the NRC program or project sponsor or the authorized contractor official. The Division of Technical Information and Document Control will review the masters for acherence to the standards set forth in this chapter and appendix and will arrange for printing and distributing the document. Unsatisfactory misters will be reported to the program or project sporsor for appropriate contractual action by the contracting cificer or, in the case of government agency or interagency agreement work, the publications manager of the performing organization.

## Reprinting or Reduplicating

Requests for reprinting or reduplicating any document subsequent to the initial printing or duplication require approval of the Division of Technical Information and Document Control. Each request shall include a written justification for the reprinting or reduplicating and a list of recipients and their complete addresses.

#### 3. Distribution of Documents

All copies of formal contractor documents will be distributed by the Division of Technical Information and Document Control in accordance with instructions on NRC Form 426 (Exhibit 5).

If any distribution is to be made other than, or in addition to, the standard distribution established for the document, written justification for printing or duplicating additional copies shall accompany the reproducible masters, when submitted to the Division of Technical Information and Document Control.

The final pages of the reproducible masters shall be the distribution list.

<sup>\*</sup>For quidelines, see part !!!.

SAMPLE COVER FOR UNCLASSIFIED FORMAL CONTRACTOR-PREPARED DOCUMENTS, EXCLUDING THOSE PREPARED UNDER OR PURSUANT TO INTERAGINCY AGREEMENTS

NRC Report No. Contractor Report No. (H any) Vol., Part, Rev., etc. (H any)

NUREG/CR-0012 UCLA-ENG-7761

Title

LMFBR FUEL ANALYSIS
TASK B: POST-ACCIDENT HEAT REMOVAL

Subtitle and Type of Report (Annual, Topical, etc.)

Final Report October 1, 1976 - September 30, 1977

Author(s)

J. Cestie N. C. Ostrander
J. M. McDeneugh I. Cetton

Contractor

University of California, Los Angeles

NRC

Prepared for U. S. Nuclear Regulatory Commission

SAMPLE TITLE PAGE FOR UNCLASSIFIED FORMAL CONTRACTOR-PREPARED DOCUMENTS, EXCLUDING THOSE PREPARED UNDER PURSUANT TO INTERAGENCY AGREEMENTS

NRC Report No. Contractor Report No. (if any) Vol., Part, Rev., etc. (if any) Distribution Category No. (if any)

MUREG/CR-0012 UCLA-ENG 7761

Title

LMFBR FUEL ANALYSIS TASK B: POST-ACCIDENT HEAT REMOVAL

Subtitle and Type of Report (Annual, Topical, etc.)

Author(s), Editor(s), Compiler(s), etc.

Report Dates and Bases

Contractor Name and Address

**NRC Spomorship** 

NAC Contract No.

Final Report October 1, 1976 - September 30, 1977

> J Castle N. C. Ostr J M McDecrough I Cattern N. C. Oser anudar

Manuscript Completed October 1977 Date Published January 1973

School of Empirications and Applied Science University of California Les Angoles CA 99824

# SAMPLE COVER FOR UNCLASSIFIED FORMAL REPORTS PREPARED UNDER OR PURSUANT TO INTERAGENCY AGREEMENTS

NRC Report No. Contractor Report No. (if any) Vol., Part, Rev., etc. (if any) NUREG/CR-1234 ORNL-6788 Vol. 3, Rev. 2

Title

A CRITICAL EVALUATION OF THE NONRADIOLOGICAL ENVIRONMENTAL TECHNICAL SPECIFICATIONS

Subtitle

Volume 3
Peach Bottom Atomic Power Station
Units 2 and 3

Author(s)

S. M. Adomio P. A. Cummingham D. D. Biran K. D. Kumar A. J. Witten

Contractor Names

Oak Ridge National Laboratory

WRC Sponsorship

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Propared for U. S. Nuclear Regulatory Commission

SAMPLE TITLE PAGE FOR UNCLASSIFIED FURMAL REPORTS PREPARED UNDER OR PURSUANT TO INTERAGENCY AGREEMENTS

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Title

Subtitle

Author(s)

Report Dates and Bases

Contractor Names and Addresses

NRC Sponsorship Interagency Agreement No. NRC FIN No. or Contract No. A CRITICAL EVALUATION OF THE NONRADIOLOGICAL ENVIRONMENTAL TECHNICAL SPECIFICATIONS

Volume 3
Peach Bottom Atomic Power Station
Units 2 and 3

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# EXHIBIT 6 DISCLAIMER AND AVAILABILITY STATEMENTS (BACK OF COVER)

#### NOTICE

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, it any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for any third party's use, or the results of such use, of any information, apparatus, product or process disclosed in this report, or represents that its use by such third party would not infringe privately owned rights

The views expressed in this report are not necessarily those of the U.S. Nuclear Regulatory Commission.

> Available from U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Available from National Tachnical Information Senice Springfield Virginia 22161

affect the patent rights of NRC. If the work being reported is contractually managed through another government agency (e.g., DOE laboratories), that government agency should be requested by the contractor to perform the patent review. The result of such review shall be reported on NRC Form 426 in item II (Exhibit 5).

If NRC directly administers the contract or the contractor is unable to obtain a patent clearance from the government agency administering the contract, the responsible NRC contracting officer shall be consulted, and the responsible NRC program or project sponsor shall consider the patent implications. If there is no need for patent review because of the certainty that the document contains no description of novel technical developments of an inventive nature, NRC Form 426 may be completed with the statement "not applicable" or "N/A" in the space for the Patent Counsel's signature. If there is a possibility that there is disclosure of developments of an inventive nature, the NRC contracting officer shall request assistance from the NRC Patent Counsel, Office of the Executive Legal Director.

## 2. Security Review

In most cases, contractor reports will be unclassified. Should a report of classified work be required, however, the program or project sponsor must work with the Division of Security to establish the appropriate classification procedures and inform the contractor of such procedures.

# C. PROCEDURES FOR PRINTING OR DUPLICATING AND DISTRIBUTING

Printing or Duplicating. Interim documents may be printed by NRC or an authorized Federal printing plant or duplicated (as defined by the Joint Committee on Printing, JCP, U.S. Congress)\* by the contractor. If to be printed by NRC, the

<sup>\*</sup>duplicating - as defined by JCP, means that material produced by use of single-unit duplicating equipment with an image area not larger than II by I7 inches and which has a maximum image of 10-3/4 by I4 inches: provided that work exceeding 5,000 production units of any one page, and work exceeding 25,000 production units in the aggregate of multiple pages, shall not be done without authority of JCP. Any work exceeding the limits stated above and requiring equipment other than that listed as duplicating equipment in the Government Printing and Binding Regulations must be approved by JCP or requisitioned by the Division of Technical Information and Document Control.

affect the patent rights of NRC. If the work being reported is contractually managed through another government agency (e.g., DOE laboratories), that government agency should be requested by the contractor to perform the patent review. The result of such review shall be reported on NRC Form 426 in item II (Exhibit 5).

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<sup>\*</sup>duplicating - as defined by JCP, means that material produced by use of single-unit duplicating equipment with an image area not larger than II by I7 inches and which has a maximum image of I0-3/4 by I4 inches: provided that work exceeding 5,000 production units of any one page, and work exceeding 25,000 production units in the aggregate of multiple pages, shall not be done without authority of JCP. Any work exceeding the limits stated above and requiring equipment other than that listed as duplicating equipment in the Government Printing and Binding Regulations must be approved by JCP or requisitioned by the Division of Technical Information and Document Control.

reproducible masters of the document, accompanied by a completed NRC Form 426, must be sent to the Division of Technical Information and Document Control.

- Distribution of Documents Printed by NRC. The masters of documents to be printed by NRC shall include a list of those to whom the document is to be distributed, complete with organization address and Zip code, or a standard distribution list shall be specified if an applicable one exists.
- Distribution of Documents Duplicated by Contractor. Interim documents duplicated by the contractor shall be distributed by the contractor or the Division of Technical Information and Document Control. If to be distributed by NRC, the necessary copies and a list of those to whom the document is to be distributed, complete with organization address and Zip code, and a completed NRC Form 426 shall accompany the documents when sent to the Division of Technical Information and Document Control; a standard distribution list may be specified if an applicable one exists.

If distributed by the contractor, two copies of the document shall be sent to the Division of Technical Information and Document Control, along with a list of those to whom copies were distributed and a completed NRC Form 426. An accession number will be assigned before the document is sent to the NRC Public Document Room. A copy of the NRC Form 426 will be returned to the contractor with the accession number assigned.

#### EXHIBIT 7

## SAMPLE TITLE PAGE FOR INTERIM CONTRACTOR DOCUMENTS TO BE MADE PUBLICLY AVAILABLE

Appression No. (Will be added by NRC) Contractor Report No.

Title of Programfor Which Contract Written Limited Subject of This Document Type of Document: Status Report, Quick-Look Report, etc.

Individual

Contractor and Address

Interspency Agreement or Contract No.

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Accession No

Contract Program or Project Title

Subject of this Decument

Type of Document

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Date of Document

Responsible NRC individual and NRC Office or Division

The document was prepared primarily for preliminary or internel use. It has not received full review and approval. Since there may be substantive changes, this document should not be gansidered time!

> Oak Ridge National Laboratory Clat. Fidge, Tennosse: 37830 ve betained Union Carbide Corporation U.S. Department of Energy

Prepared to: U.S. Nuclear Regulatory Commission Washington, D.C. 20565 Limber Interagency Agreement DDE 40-550-75 NRC FIN No. A12347

INTERIM REPORT

#### PART III

FORMAL DOCUMENTS TO BE PRINTED UN ER OR PURSUANT TO INTERAGENCY AGREEMENTS BY AGENCIES WITH JCP AUTHORIZED FEDERAL PRINTING PLANTS

#### DOCUMENTATION

#### 1. Applicability

- The requirements of this part apply to NRC staff who are responsible for agreements with other agencies and their contractors who print regulatory and technical documents required by agreements with NRC.
- With respect to classified documents and documents "For Official Use Only," the requirements set forth in this part shall be used in conjunction with Chapter NRC-2101.
- The requirements of this part do not apply to consultants and contractors to the NRC boards and advisory committees which report directly to the Commission.

## Front Cover and Title Page

- Separate covers (of different paper than that of the text) and title pages are required.\*
- b. Items such as those shown in Exhibits 3 and 4 and discussed below shall appear on the front cover and title page, as appropriate.\*\* While layouts and typefaces need not be exactly the same as in Exhibits 3 and 4, the items shall appear in approximately the locations indicated and with the same relative prominence.
  - (1) NRC Document Number. Each document shall be identified by an NRC-controlled alphanumeric number as the prime number unique to that document. The centralized document control system for unique

<sup>\*</sup>The cover stock of the performing organization may be used; however it must include the data elements shown in Exhibit 3.

<sup>\*\*</sup>These requirements meet the specifications of American National Standard ANSI Z39.18-1974, Guidelines for Format and Production of Scientific and Technical Reports, and ANSI Z39.23-1974, Technical Report Numbers.

identification is maintained by the Division of Technical Information and Document Control. Numbers may be obtained by calling the Division of Technical Information and Document Control or submitting a copy of NRC Form 426 (Exhibit 5) with a request for a number.

The NRC identification number will have the form:

#### NUREG/CR-1234

The contractor's report number, if any, may be inserted below the NUREG number on the title page and cover, as shown in Exhibits 3 and 4.

When a document consists of more than one volume or binding or is issued in more than one edition, an appropriate volume, supplement, part, or revision designation shall appear immediately below the report number(s). NRC document numbers on covers and title pages shall be shown entirely on one line to facilitate computer processing.

## (2) Title and Subtitle

- (a) Use a brief title, which indicates clearly the subject matter covered in the document.
- (b) When a document is prepared in more than one volume, repeat the primary title on each volume.
- (c) If appropriate, show the type of document (e.g., annual report, final report, thesis, etc.) and the period covered as part of the subtitle.

# (3) Personal Author(s)' Name(s)

- (a) Authors' names should be given on the title page and cover unless this is impractical, as in the case of annual reports which have many contributors. if authors' contributions are as editors, compilers, etc., so indicate on title page and cover following the names. In addition, list affiliation of each author only if affiliated with an organization other than the organization generating the document.
- (b) Authors may be identified on backstrips (spines) of bound volumes.

1 . . .

# (4) Organization Identification

- (a) On cover, provide the name of the contractor responsible for preparing the document, followed by "Prepared for the U.S. Nuclear Regulatory Commission."
- (b) On the title page, provide information of the type illustrated in Exhibit 4.

## (5) Basis for Report Date(s)

- (a) The basis for dating may be shown along with the date on the title page. Various bases for dating are possible; e.g., date document completed, date reviews completed, date published, date distributed, etc.
- (b) More than one date, with the basis for each, may be shown where this is necessary.

## 3. Availability and Price Information

All formal documents will be made available for sale by NRC and NTIS. The following statement is required on the inside of the front cover (Exhibit 6):

Available from U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Available from National Technical Information Service (NTIS) Springfield, Virginia 22161

### 4. Disclaimer

The following notice shall be added during the printing step on the inside front cover (Exhibit 6): "This report was prepared as an account of work sponsored by the United States Government. Neither the United States Government nor any agency thereof, or any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for any third party's use, or the results of such use, of any information, apparatus, product or process disclosed, or represents that its use by such third party would not infringe privately owned rights." The following additional statement, "The views expressed in this report are not necessarily those of the U.S. Nuclear Regulatory Commission" will be printed below the standard disclaimer, if appropriate.

## 5. Abstract

An abstract of 200 words or less shall be prepared for each formal document. Within the document, the abstract shall appear on a separate page between the table of contents and the text.\*

## B. PATENT AND SECURITY REVIEWS

#### 1. Patent Review

Patent implications shall be considered prior to approval of reports for public release so that disclosure will not adversely affect the patent rights of NRC or the contractor. The government agency responsible for the interagency agreement with NRC should perform the patent review. The results of such review shall be reported by the agency on NRC Form 426 in item II (Exhibit 5).

## 2. Security Review

In most cases, consultant, contractor, and subcontractor reports will be unclassified. Should a report of classified work be required, however, the NRC program or project sponsor must work with the Division of Security to establish the appropriate classification procedures and inform the contractor.

#### C. PROCEDURES FOR PRINTING AND DISTRIBUTING

#### 1. Printing

Contractor documents may be printed only by a JCP authorized printing plant. Documents printed by the contractor and one reproducible master shall be submitted by the NRC program or project sponsor or the authorized contractor official to the Division of Technical Information and Document Control, with completed NRC Form 426. The number of copies specified by the agreement or contract for standard and incidental distribution shall be provided. The appropriate identifying number (NUREG/CR-\_\_\_) may be obtained as discussed in section A.2.b.(1).

## 2. Reprinting

Requests for reprinting of any document at NRC expense subsequent to the initial printing require approval of the Division of Technical Information and Document Control. The

<sup>\*</sup>This preferred positioning of the abstract in the document need not be followed if the style manual of the originating organization requires a different location.

request shall include a written justification for the reprinting and a list of recipients and their complete addresses.

## 3. Distribution of Documents

Each document transmitted to the Division of Technical Information and Document Control shall be accompanied by a recommendation for distribution on NRC Form 426 (Exhibit 5) and sufficient copies for standard and incidental distribution.

#### PART IV

### GUIDELINES FOR PREPARATION OF MANUSCRIPTS AND REPRODUCIBLE MASTERS TO BE PRINTED BY NRC

## A. INTRODUCTION

These guidelines provide instructions to U.S. Nuclear Regulatory Commission contractors for the preparation of reproducible masters (camera-ready copy) of reports submitted to NRC for printing or duplicating. They are intended for the use of NRC contractors that do not have written editorial standards for manuscript preparation. Organizations with established report preparation staffs and style manuals should use their own procedures and guidelines; this particularly applies to the DOE laboratories.

Adherence to these or similar established guidelines will insure the professional quality and timely publication of NRC contractor reports. Manuscripts submitted which do not adhere to these or similar professional guidelines will be reported to the program or project sponsor for appropriate contractual action by the contracting officer or, in the case of government agency or interagency agreement work, the publications manager of the performing organization.

Questions about the implementation of these guidelines should be addressed to NRC's Division of Technical Information and Document Control, Washington, D.C. 20555; (301) 492-7566.

## B. ORDER OF ELEMENTS IN A REPORT

Organize the manuscript according to the following order of elements before submitting it to NRC.

	Element	Page Number Left Hand P	
	Title page	none Right	
	Back of title page	none Left	
	Abstract	iii Right	
rer	Back of Abstract page	none Left	
Matte	Table of Contents	v Right	
	List of Figures	Small Roman (odd or even) Right or	Left
Front	List of Tables	Small Roman (odd or even) Right or	Left
	Preface	Small Roman (odd) Right	
	Acknowledgments	Small Roman (odd) Right	
	Abbreviations and Symbols	S Small Roman (odd) Right	

Approved: January 25, 1978

	Element	Page Number	Right or Left Hand Page
	Introduction	Unnumbered, but considered Arabic I	Right
	Text	Numbered consecutively throughout in Arabic numerals	Right
	References	Numbered consecutively throughout in Arabic numerals	Right
	Bibliography	Numbered consecutively throughout in Arabic numerals	Right or Left
k Matter	First Appendix	Numbered consecutively throughout in Arabic numerals	Right
Back	Glossary	Numbered consecutively throughout in Arabic numerals	Right or Left
	Distribution Lists	Numbered consecutively throughout in Arabic numerals	Right

When an element ends on a right-hand page and the next element is to start on a right-hand page, leave a blank unnumbered page and skip a number so that the right-hand page starts on an odd page. Right-hand pages are always assigned odd numbers, left-hand pages are always assigned even numbers.

#### C. FRONT MATTER

## 1. Cover, Title Page and Disclaimer

The appropriate cover and title page with the information specified in Part I of this Appendix shall accompany each reproducible master.

#### 2. Abstract

An abstract of 200 words or less shall appear in each report. The abstract shall summarize the major points of the report, including what investigations the report covers, and any findings, conclusions, and recommendations. For progress reports, concentrate on status of work to date. The preferred

Approved: January 25, 1978 24

location for the abstract is between the title page and the table of contents.

For conference proceedings, each paper shall include an abstract of 200 words or less. The abstract shall appear on the first text page of each paper between the title and the text.

#### Guides for Preparing an Abstract 3.

The abstract is a condensed version of the document and should summarize or highlight the major points. It should never exceed one paragraph or 200 words, and should provide a review of the contents of the work in abbreviated form.

The abstract should state what was investigated and give any conclusions reached. A review of the major and minor headings of the report and, in particular, the introduction and conclusion section can be useful in deciding what information to include. The first sentence of the abstract should state the subject of the report.

The writing should be concise; that is, words and ideas that are either repetitious or unnecessary should not be used. Care should be taken, however, to include the article (a, an, the) and transitional words (and, however, but) that are important to readability. The language should be concise, but the abstract should not read like a telegram.

## 4. Summary

Contractor reports (other than short summary reports) should include a 500- to 1,000-word summary of major findings conclusions and recommendations (if any) of the report. The summary should state the purpose and nature of the investigation, as well 23 provide a brief account of the procedures used. It should provide a concise overview for persons in management positions. Though more complete than an abstract, the summary should not contain a detailed description of the work on which the findings, conclusions and recommendations were based.

The summary may appear as a separate section between the abstract and the table of contents. It may also be the final section of the text. When it appears between the abstract and table of contents, it is treated as front matter. When it appears as the final section of text, it should be listed in the table of contents and treated as text matter.

## Table of Contents and Page Numbers

A table of contents shall be provided if the report contains more that 25 pages of text. The table of contents shall list all major sections of the text, including the front matter. It shall include chapter or section numbers, as well as the title of and page number for each. (See Exhibits 8 and 9 for sample tables of contents.) In reports made up of chapters or papers by different authors, the table of contents shall list the name of each author with the title of the chapter or the paper (see Exhibit 10, for example).

When proofreading the table of contents, insure that the page numbers and wording of chapter and section titles are identical with those in the text.

## 6. List of Figures

A separate page listing figures shall be included when there are five or more figures in the report. The figure numbers and captions shall correspond to those in the text. Such a list is unnecessary for conference proceedings or symposium compilations.

## 7. List of Tables

A separate page listing tables shall be included if there are five or more tables in the report. The table numbers and titles shall correspond to those in the text. Such a list is unnecessary for conference proceedings or symposium compilations.

## 8 Preface (Optional)

The preface is the author's statement about the purpose, background, or scope of the work. It can also contain acknowledgments of help received during the course of the work, if the acknowledgments do not run over several paragraphs. The preface can also cite permission obtained for use of previously published work. The author's name shall appear at the end of the preface with his title, affiliation, and the date.

#### 9. Acknowledgments

Unless they are more than one page long, acknowledgments shall appear in the preface.

Acknowledgments, if extensive, shall follow the preface on a separate page and carry a small Roman page number.

## 10. Previous Reports in Series

If the report under preparation is one in an ongoing series, list all previous reports in the series. Include report number and issuance dates.

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#### 11. Abbreviations and Symbols

When the abbreviations and symbols used in the report are numerous, and when there is a possibility they will not be understood by the intended audience, include a separate section for them. The list, labeled as such, shall appear as the last item of the front matter on a new right-hand page.

#### D. TEXT

## Title of Report

The title of the report shall be repeated on the first page of text. It shall be centered at the top of the page, like a chapter or section title.

## Introduction (Optional)

Not every report needs an introduction. Where background information essential to an understanding of the text is necessary, include an introduction. Otherwise, background information shall be included in the preface.

The introduction follows the preface (or acknowledgments), beginning on a new page. As the first text page, it shall be unnumbered but considered as page number i. If there is no introduction, begin the report with the first major text heading, after repeating the report title.

#### 3. Paper

Plain, white, bond paper shall be used. Company letterhead is not acceptable.

### Typing Instructions

Faragraphs shall be single spaced and typed flush left in block style (no paragraph indentations). Double space between paragraphs, triple space before headings, and double space after headings.

#### Image Area

The image areas for typing shall be 6 x 8-1/2 in.

#### Page Numbering 6.

Pages shall be numbered consecutively throughout, with small Roman numerals for all front matter and Arabic numerals for all text and back matter. The report will be printed on both sides of the paper; therefore, all left-hand pages must carry even numbers, and all right-hand pages, odd numbers.

New chapters may begin on a new page; either a left- or right-hand page. Page numbers shall be centered one-half inch above the bottom of the typing guide. Guidelines for numbering pages containing figures or tables are found in a later section on Graphic and Tabular Matter.

## 7. Photocopied Text

Pages reproduced by photocopying machines are not acceptable as camera-ready material. Photographically reproduced pages (using photographic print paper) are acceptable.

## 8. Footnotes

Footnotes in the body of the report shall be used only for explanatory material not extensive enough to comprise an appendix.

Notes citing references to literature used in the preparation of the report shall appear as part of the references (see item G, below).

Footnotes shall appear at the bottom of the text page between the last line of text and the page number; that is, the last line of the footnote shall be on the bottom line of the 6 x 8-1/2 in typing guide. A double space shall appear between the last line of text and the first line of the footnote. A 20-space line shall appear above the first footnote.

Single, double or triple asterisks or daggers shall be used to mark footnotes in the text and at the bottom of the page.

#### E. BACK MATTER

## I. References

a. Format. Citations of source documents in technical and research reports shall be numbered consecutively in the order in which they appear in the text and collected in a reference section. For short reports (20 pages or less), the reference section shall appear at the end of the report directly following the text. For long reports, reference sections shall appear at the end of each chapter or major section. In either case, reference sections are labeled as such and may begin at the end of the text or on a new page. For reports with more than one reference section, if a citation appears in separate chapters or sections, it shall be repeated in each appropriate reference section.

Multiple line citations shall be typed single space, with double spacing between citations.

The second and subsequent lines of an entry shall be typed flush with the same margin as the first line so that the reference number stands out. (See item G for guidelines on how to cite specific references.)

- Availability Requirement. The provisions of 10 CFR 2.740 and 10 CFR 9.4 require that written, reproducible material used as source material in NRC regulatory and technical documents produced by its contractors and subcontractors be readily available for inspection and copying or be documents ordinarily available from a public library. Accordingly, reference citations must be presented in a format recognizable by a librarian. Citations to information not available in the open literature shall state where the document can be purchased or copied. Give purchase price, if known (see item G for guidelines).
- Proprietary and Classified Documents. When nonproprietary or unclassified (or declassifiable) information contained in proprietary or classified documents must be used as source material, it should be (1) inserted in the body of the text or as a footnote to the text, (2) copied and placed in an appendix, or (3) abstracted and made available for inspection and copying for a fee at the NRC Public Document Room. If alternative (3) is chosen, the abstract should be referenced in the reference list in the appropriate sequence.

In some instances, reference to classified or proprietary documents cannot be avoided because those documents are the only source for the material. The documents are required, however, to be withheld from the public. Nevertheless the public must be made aware that such documents served as the bases for the material presented. Accordingly, proprietary documents and classified documents (omit the title if the title is classified) may be referenced when necessary. This type of reference should include a statement such as the following: This document is not publicly available because it contains proprietary (or national security) information.

## 2. Bibliography

Citations of other documents pertinent to the subject but not referenced in the text shall be listed in a bibliography. Bibliographic entries shall be arranged alphabetically by personal or corporate author name.

The bibliography, labeled as such, shall follow the last reference section in the text and begin on a new page, either right or left

A . . . .

## 3. Appendix

The appendix shall comprise information supplemental to the report. The types of material to be placed in the appendix are (a) explanations too long for footnotes but helpful to the reader seeking further assistance or clarification, (b) passages from documents or laws that support or illustrate the text, or (c) long charts or tables.

The first appendix shall appear on the first right-hand page directly after the reference section or bibliography. Each additional appendix shall begin on a new page, either right or left. Each appendix shall be identified by a title and heading centered above the text.

## Glossary

A glossary shall be included if the report contains many terms that will be unfamiliar to the intended audience. Terms shall be arranged alphabetically, with each new entry beginning on a new line. Definitions shall follow the term on the same line, dictionary style.

The glossary, labeled as such, shall appear directly after the appendix, beginning on a new page, either right or left.

## Distribution List

The distribution list shall cite the NRC distribution category and any supplemental distribution the report is to receive. The supplemental recipients shall be listed by title and complete address, including Zip Code. It shall begin on a right-hand page

## GRAPHIC AND TABULAR MATTER

#### Tables

Each table shall have a number, in Arabic numerals, and a title. The table number and title shall be centered above the table. Tables shall be numbered sequentially throughout the text or double-numbered by chapter, such as 1.4, 5.6, etc.

Tables shall be referred to in the text by number rather than by direction ("Table 4" rather than "the above table"). When a table must be continued from one page to the next, the table number ("Table 3, Continued") and the column headings shall be repeated at the head of the new page.

Pages containing full-page tables shall be numbered in the same manner as regular text pages.

## 2. Figures

Each figure shall have a number, in Arabic numerals, and a title. The figure number and title shall be placed below the figure. Figures shall be numbered sequentially throughout the text or doubled-numbered by chapter, such as 1.4, 5.6, etc.

Figures shall be referred to in the text by number rather than by direction ("Figure 3" rather than "the figure below").

Pages containing full-page figures shall be numbered in the same manner as regular text pages.

## 3. Photographs

Only continuous-tone glossy black and white prints are acceptable. The following types are not acceptable: color prints and prescreened or half-tone prints or plates. All photographs shall be mounted and the title, number, and page number placed on the page. Photographs shall be considered as figures with respect to numbers and title.

## 4. Special Graphics

Special graphics include oversized engineering drawings and foldouts. Instructions for handling special graphics shall be provided for each document, where appropriate.

#### G. EXAMPLES OF REFERENCE CITATIONS

#### 1. Correspondence

Letter from D. B. Blackman, Georgetown Municipal Utility, to R. A. Gilbert, NRC, Subject: Answers to NRC Questions on Docket 50-825, dated January 31, 1975. Available in NRC PDR for inspection and copying for a fee.

#### 2. Internal Papers

Internal papers, such as technical notes and minutes of meetings should not be referenced unless they are already available in the NRC Public Document Room (PDR) or will be made available in the PDR prior to issuance of the report. For a technical note, list author (if any), title, and date, and state that it is "available in the NRC PDR for inspection and copying for a fee." The same format is applicable to minutes of meetings. Calculations and working papers should not be referenced. If the information in them is pertinent to the text of the report, it should be made part of the report as text, footnote, or appendix.

# 3. Personal Communications, Private Communications, Notes Regarding Visits

References of the following type should not be used:

J. G. Facer, ERDA Grand Junction Office, personal communication to M. B. Sears, Oak Ridge National Laboratory, December 16, 1975.

Staff visit to the Exxon mine waste dump, Converse County Wyoming, April 12, 1972.

In both instances place these remarks directly in the text, since they do not represent any retrievable information.

## 4. Procedures Manuals

Procedures manuals should not be referred to unless they are normally available. The citation should give sufficient information to indicate where they can be obtained. If specific procedures are pertinent, they can be reiterated in the text without reference to documents.

## 5. Government Agency Printed Documents and Drafts that Have Seen Made Available to the Public for Comment

For draft reports:

U.S. Nuclear Regulatory Commission, "Draft Generic Environmental Statement on the Use of Recycle Plutonium in Mixed Oxide Fuel in Light Water Cooled Reactors," USNRC Report NUREG-0002, Vols. 1-5, April 1976. Available in NRC PDR for inspection and copying for a fee.

If specific pages are being referenced, insert volume and page numbers following the title; e.g., Vol. 4, pp. 10-20, 500-730.

#### For final reports:

- U.S. Nuclear Regulatory Commission, "Final Generic Environmental Statement on the Use of Recycle Plutonium in Mixed Oxide Fuel in Light Water Cooled Reactors," USNRC Report NUREG-0002, Vols. 1-5, August 1976. Available for purchase from National Technical Information Service, Springfield, Virginia 22161.
- R. O. Meyer, "The Analysis of Fuel Densification," USNRC Report NUREG-0085, p. 48, July 1976. Available for purchase from National Technical Information Service, Springfield, Virginia 22161.

# 6 NRC Contractor Reports and Reports Prepared on Interagency Agreements

M.A.M. Shinaishin, University of Arizona, "Dynamic Simulation of a Sodium-Cooled Fast Reactor Power Plant," p. 196, USNRC Report NUREG-0110, September 1976. Available for purchase from National Technical Information Service, Springfield, Virginia 22161.

G. L. Bordner and others, "Pretest Analysis SLSF In-Reactor Experiment 62," USNRC Accession No. 771090001, prepared for NRC by Argonne National Laboratory, October 1976. Available in NRC PDR for inspection and copying for a fee.

## 7. NRC Applicant Document

Exxon Nuclear Company, "Preliminary Safety Analysis Report," Vol. 3, p. 5.4-3, Nuclear Fuel Recovery and Recycling Center, Docket 50-564, April 1976. Available in NRC PDR for inspection and copying for a fee.

## 8. Project Documents

The format given in item G.7 for applicant documents may be used for project documents, with the docket number replaced by the project number.

## 9. Licensee Documents

The format given in item G.7 for applicant documents may be used for licensee documents, with the docket number or the license number.

## 10. Books

S. Glasstone, Sourcebook on Atomic Energy, p. 155, D. Van Nostrand Co., Inc. New York, 1974.

## II. Conference Papers

Unpublished conference papers should not be referenced. The information being used should be stated in the text and credit to the originator given in text or footnote. If the originator can supply a paper, it may be placed in an appendix and mentioned in the text.

Published conference papers should be referenced as follows:

J. L. Russell, "Potential Environmental Advantages from Partitioning of Radioactive Waste," p. 83 in Proceedings of

the Conference on the Management of Rad pactive Waste Waste Partitioning as an Alternative, USNRC Comentice Report CONF-001, June 1976. Available for purchase from National Technical Information Service, Springfield Virginia 22161.

#### Journal Articles, Magazine Articles, Newspaper Articles 12.

S. D. Shearer and C. W. Still, "Evaluation of Atmospheric Radon in the Vicinity of Uranium Mill Tailings." Health Physics 17, 77-88 (1976). Available in public technical libraries.

"Why the Nuclear Power Race Worries the U.S.," p. 68, Business Week, August 23, 1976. Available in public libraries.

"Argentina Says It Has Atom Fuel To Triple Its Electrical Capacity," p. 53, The New York Times, August 31, 1976. Available in public libraries.

## 13. University Theses

J. J. Jacobs, "Programming Language I for the Varian PLCU," Master's Thesis, p. 70, North Carolina University, 1971.

## 14. Codes and Standards

"American National Standard Requirements for Collection, Storage and Maintenance of Quality Assurance Records for Nuclear Power Plants," ANSI N45.2,9 1974. Available from American National Standards Institute, 1430 Broadway, New York, N.Y. 10018, Copyrighted.

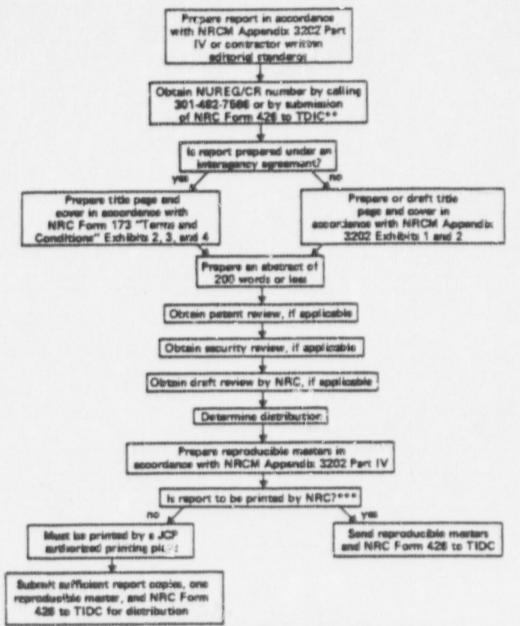
"Draft American National Standard Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants," ANSI N45.2.9, Rev. I, Draft I, February 1976. Available from The American Society of Mechanical Engineers, 345 East 47th Street, New York, N.Y. 10017.

PUBLICATION OF UNCLASSIFIED REGULATORY AND TECHNICAL DOCUMENTS PREPARED BY NRC CONTRACTORS

#### Exhibit 11

U. S. Nuclear Regulatory Commission

PROCEDURES FOR PUBLICATION OF FORMAL CONTRACTOR DOCUMENTS



"See NRCM 3202 or NRC Form 173 "Terms and Conditions," item 12, for definition.

Complete procedures (NRCM 3202) and forms may be obtained by delline 301-492-7566.

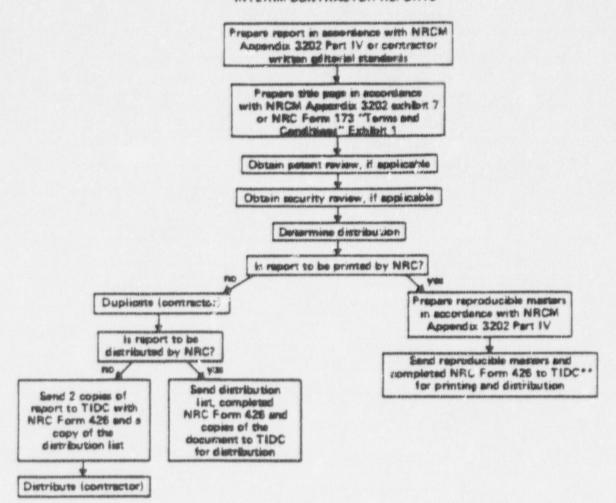
Convert: 1. NRC Technical Monitor for contract or Standard Order for Work.

2. Division of Technical Information and Document Control, Telephone 301-482-7586.

<sup>\*\*</sup>Obvision of Technical Informerion and Document Control, Landow 212, U. S. Nuclear Regulatory Commission, Weshington, D. C. 20556.

<sup>\*\*\*</sup> If DOE constructor, see NRC Form 173 "Terms and Conditions," item 12, for princing authortestions. If not DOE constructor or other government spency, printing must be done by NRC.

U. S. Nurseer Regulatory Commission PROCEDURES FOR ISSUANCE OF INTERIM CONTRACTOR REPORTS\*



- \*Send NRCM 3202 or NRC Form 173 "Terms and Conditions," item 12, for definition.
  Complete procedures (NRCM 3202) and forms may be obtained by calling 301-492-7566
- \*\*Division of Technical Information and Document Centrel, Landow 212, U. S. Nuclear Regulatory Commission, Washington, D. C. 20556.
- Contact: 1. NRC Technical Monitor for contract or Standard Order for Work.
  - 2. Division of Technical Information and Decument Control, Telephone 301-492-7566.

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MSN 7540-01-142-9845

IT S MATURE

1411-101

STANDARD FORM 1611 (10-63) Prescribed by GSA FAR (46 CFR) 53 215-2(4)

IN DATE OF SURMISSION

#### STANDARD FORM 1411 WITH INSTRUCTIONS

1. SF 1411 provides a vehicle for the offeror to submit to the Government a pricing proposal of estimated and/or incurred costs by contract line item with supporting information, adequately cross-referenced, suitable for detailed analysis. A cost-element breakdown, using the applicable format prescribed in 7A, B, or C below, shall be attached for each proposed line item and must reflect any specific requirements established by the Contracting Officer. Supporting breakdowns must be furnished for each cost element, consistent with offeror's cost accounting system.

When more than one contract line item is proposed, summary total amounts covering all line items must be furnished for each cost element. If agreement has been reached with Government representatives on use of forward pricing rates/factors, identify the agreement, include a copy, and describe its nature. Depending on offeror's system, breakdowns shall be provided for the following basic elements of cost, as applicable:

Materials - Provide a consolidated priced summary of individual material quantities included in the various tasks, orders, or contract line items being proposed and the basis for pricing (vendor quotes, invoice prices, etc.).

Subcontracted Items - Include parts, components, assemblies, and services that are to be produced or performed by others in accordance with offeror's design, specifications, or direction and that are applicable only to the prime contract. For each subcontract over \$500,000, the support should provide a listing by source, item quantity, price, type of subcontract, degree of competition, and basis for establishing source and reasonableness of price, as well as the results of review and evaluation of subcontract proposals when required by FAR 15.806.

Standard Commercial Items - Consists of items that offeror normally fabricates, in whole or in part, and that are generally stocked in inventory. Provide an appropriate explanation of the basis for pricing. If price is based on cost, provide a cost breakdown; if priced at other than cost, provide justification for exemption from submission of cost or pricing data, as required by FAR 15.804-3(e).

Interorganizational Transfer (at other than cost) - Explain pricing method used. (See FAR 31.205-26).

Raw Material - Consists of material in a form or state that requires further processing. Provide priced quantities of items required for the proposal.

Purchased Parts - Includes material items not covered above. Provide priced quantities of items required for the proposal.

Interorganizational Transfer (at cost) - Include separate breakdown of cost by element.

Direct Labor - Provide a time-phased (e.g., monthly, quarterly, etc.) breakdown of labor hours, rates, and cost by appropriate category, and furnish bases for estimates.

Indirect Costs - Indicate how offeror has computed and applied offeror's indirect costs, including cost breakdowns, and showing trends and budgetary data, to provide a basis for evaluating the reasonableness of proposed rates. Indicate the rates used and provide an appropriate explanation.

Other Costs - List all other costs not otherwise included in the categories described above (e.g., special tooling, travel, computer and consultant services, preservation, packaging and packing, spoilage and rework, and Federal excise tax on finished articles) and provide bases for pricing.

Royalties - If more than \$250, provide the following information on separate page for each separate royalty or license fee: name and address of licensor; date of license agreement; patent numbers, patent application serial numbers, or other lassis on which the royalty is payable; brief description (including any part or model numbers of each contract item or component on which the royalty is payable); percentage or dollar rate of royalty per unit; unit price of contract item; number of units; and total dollar amount of royalties. In addition, if specifically requested by the Contracting Officer, provide a copy of the current license agreement and identification of applicable claims of specific patents. (See FAR 27.204 and 31.205-37).

Facilities Capital Cost of Money - When the offeror elects to claim facilities capital cost of money as an allowable cost, the offeror must submit Form CASB-CMF and show the calculation of the proposed amount (see FAR 31.205-10).

- 2. As part of the specific information required, the offeror must submit with offeror's proposal, and clearly identify as such, cost or pricing data (that is, data that are verifiable and factual and otherwise as defined at FAR 15.801). In addition, submit with offeror's proposal any information reasonably required to explain offeror's estimating process, including:
  - a. The judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data; and
  - b. The nature and amount of any contingencies included in the proposed price.
- 3. There is a clear distinction between submitting cost or pricing data and merely making available books, records, and other documents without identification. The requirement for submission of cost or pricing data is met when all accurate cost or pricing data reasonably available to the offeror have been submitted, either actually or by specific identification, to the Contracting Officer or an authorized representative. As later information comes into the offeror's possession, it should be promptly submitted to the Contracting Officer. The requirement for submission of cost or pricing data continues to the time of final agreement on price.

Cost	Estimated Cost of All Work Deleted	Cost Of Deleted Work Already Performed	Net Cost To Be Deleted	Cost Of Work Added	Net Cost Of Change	Reference
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Under Column (1) - Enter appropriate cost elements.

Under Column (2) - Include (i) current estimates of what the cost would have been to complete deleted work not yet performed, and (ii) the cost of deleted work already performed.

Under Column (3) - Include the incurred cost of deleted work already performed, actually computed if possible, or estimated in the Contractor's accounting records. Attach a detailed inventory of work, materials, parts, components, and hardware already purchased, manufactured, or performed and deleted by the change, indicating the cost and proposed disposition of each line item. Also, if offeror desires to retain these items or any portion of them, indicate the amount offered for them.

Under Column (4) - Enter the net cost to be deleted which is the estimated cost of all deleted work less the cost of deleted work already performed. Column (2) less Column (3) = Column (4).

Under Column (5) - Enter the offeror's estimate for cost of work added by the change. When nonrecurring costs are significant, or when specifically requested to do so by the Contracting Officer, provide full identification and explanation of them.

Under Column (6) - Enter the net cost of change which is the cost of work added, less the net cost to be deleted. When this result is negative, place the amount in parentheses. Column (4) less Column (5) = Column (6).

Under Column (7) - Identify the attachment in which the information supporting the specific cost element may be found. Attach separate pages as necessary.

- 4. In submitting offeror's proposal, offeror must include an index, appropriately referenced, of all the cost or pricing data and information accompanying or identified in the proposal. In addition, any future additions and/or revisions, up to the date of agreement on price, must be annotated on a supplemental index.
- 5. By submitting offeror's proposal, the offeror, if selected for negotiation, grants, the Contracting Officer or an authorized representative the right to examine those books, records, documents, and other supporting data that will permit adequate evaluation of the proposed price. This right may be exercised at any time before award.
- 6. As soon as practicable after final agreement on price, but before the award resulting from the proposal, the offeror shall, under the conditions stated in FAR 15.804-4, submit a Certificate of Current Cost or Pricing Data.
- 7. Headings for Submission of Line-Item Summaries:
  - A. New Contracts (including Letter contracts).

Cost Elements	Proposed Contract Estimate-Total Cost	Proposed Contract Estimate-Unit Cost	Reference
(1)	(2)	(3)	(4)

Under Column (1) - Enter appropriate cost elements.

Under Column (2) - Enter those necessary and reasonable costs that in offeror's judgment will properly be incurred in efficient contract performance. When any of the costs in this column have already been incurred (e.g., under a letter contract or unpriced order), describe them on an attached supporting schedule. When preproduction or startup costs are significant, or when specifically requested to do so by the Contracting Officer, provide a full identification and explanation of them.

Under Column (3) Optional, unless required by the Contracting Officer.

Under Column (4) - Identify the attachment in which the information supporting the specific cost element may be found. Attach separate pages as necessary.

## C. Price Revision/Redetermination

Cutoff Date	Number of Units Completed	Number of Units To Be Completed	Contract Amount	Redetermina- tion Proposal Amount	Difference
(1)	(2)	(3)	(4)	(5)	(6)

Cost Elements	Incurred Cost- Preproduc- tion	Incurred Cost- Completed Units	Incurred Cost- Work In Process	Total Incurred Cost	Estimated Cost To Complete	Estimated Total Cost	Reference
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

Under Column (1) - Enter the cutoff date required by the contract, if applicable.

Under Column (2) - Enter the number of units completed during the period for which experienced costs of production are being submitted.

Under Column (3) - Enter the number of units remaining to be completed under the contract.

Under Column (4) - Enter the cumulative contract amount.

Under Column (5) - Enter the offeror's redetermination proposal amount.

Under Column (6) - Enter the difference between the contract amount and the redetermination proposal amount. When this result is negative, place the amount in parentnesis. Column (4) less Column (5) \* Column (6).

Under Column (7) - Enter appropriate cost elements. When residual inventory exists, the final costs established under fixed-price-incentive and fixed-price-redeterminable arrangements should be net of the fair market value of such inventory. In support of subcontract costs, submit a listing of all subcontracts subject to repricing action, annotated as to their status.

Under Column (8) - Enter all costs incurred under the contract before starting production and other nonrecurring costs (usually referred to as startup costs) from offferor's books and records as of the cutoff date. These include such costs as preproduction engineering, special plant rearrangement, training program, and any identifiable nonrecurring costs such as initial rework, spoilage, pilot runs, etc. In the event the amounts are not segregated in or otherwise available from offeror's records, enter in this column offeror's best estimates. Explain the basis for each estimate and how the costs are charged on offeror's accounting records

(e.g., included in production costs as direct engineering labor, charged to manufacturing overhead, etc.). Also how the costs would be allocated to the units at their various states of contract completion.

Under Columns (9) and (10) - Enter in Column (9) the production costs from offeror's books and records (exclusive of preproduction costs reported in Column (8) of the units completed as of the cutoff date. Enter in Column (10) the costs of work in process as determined from offeror's records or inventories at the cutoff date. When the amounts for work in process are not available in Contractor's records but reliable estimates for them can be made, enter the estimated amounts in Column (10) and enter in Column (9) the differences between the total incurred costs (exclusive of preproduction costs) as of the cutoff date and these estimates. Explain the basis for the estimates, including identification of any provision for experienced or anticipated allowances, such as shrinkage, rework, design changes, etc. Furnsih experienced unit or lot costs (or labor hours) from inception of contract to the cutoff date, improvement curves, and any other available production cost history pertaining to the item(s) to which offeror's proposal relates.

Under Column (11) - Enter total incurred costs (Total of Columns (8), (9), and (10)).

Under Column (12) - Enter those necessary and reasonable costs that in Contractor's judgment will properly be incurred in completing the remaining work to be performed under the contract with respect to the item(s) to which Contractor's proposal relates.

Under Column (13) - Enter total estimated cost (Total of Columns (11) and (12)).

Under Column (14) - Identify the attachment in which the information supporting the specific cost element may be found. Attach separate pages as necessary.