

AWARD/CONTRACT

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350) RATING

2. CONTRACT NO. NRC-04-94-047	3. EFFECTIVE DATE JUN - 3 1994	4. REQUISITION/PROJECT NO. RES94047
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5. ISSUED BY Code: U.S. Nuclear Regulatory Commission Div. Of Contracts & Property Mgmt. Tech.Aquis.Br.1; TWF - 7E33 Washington, DC 20555	6. ADMINISTERED BY Code: (If other than Item 5)
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7. NAME AND ADDRESS OF CONTRACTOR University of Maryland Office of Research Administration and Advancement 2100 Lee Building College Park, MD 20742 Principal Investigator/Technical Contact: Dr. Kazys Almenas Telephone No: (301) 405-5213	8. DELIVERY [] FOB ORIGIN [X] OTHER (See below)
9. DISCOUNT FOR PROMPT PAYMENT N/A	

10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN ITEM: 5

11. SHIP TO/MARK FOR CODE U.S. Nuclear Regulatory Commission Office of Nuclear Regulatory Res. Attn:Allen Notafrancesco; NLN 344 Washington, D.C. 20555	12. PAYMENT WILL BE MADE BY CODE U.S. Nuclear Regulatory Commission Division of Accounting and Finance GOV/COM Accounting Section Washington, DC 20555
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13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION
[] 10 U.S.C. 2304(c) [] [X] 41 U.S.C. 253(c) [2]

14. ACCOUNTING AND APPROPRIATION DATA
Doc ID#RES-C94-122 APPN:31X0200.460 B&R:46060801000 JCN:E6209 BOC:252A AMT:\$118,000.00

15A. ITEM NO.	15B. SUPPLIES/ SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
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See Schedule

15G. TOTAL AMOUNT OF CONTRACT \$298,673.00

EXCEPTION TO STANDARD FORM SF26 (REV. 4-85) Prescribed by GSA
FAR(48 CFR) 53.214(a)

230015
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PDR CONTR
NRC-04-94-047 PDR

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X SEC	16. TABLE OF CONTENTS DESCRIPTION	PAGE(S)
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CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17. CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return three copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)

18. AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.

19A. NAME AND TITLE OF SIGNER (Type or print) Victor Medina Director Research Administration and Advancement	20A. NAME OF CONTRACTING OFFICER Mary H. Mace
19B. NAME OF CONTRACTOR by <i>[Signature]</i> (Signature of person authorized to sign)	20B. UNITED STATES OF AMERICA by <i>[Signature]</i> (Signature of Contracting Officer)
19C. DATE SIGNED 5/25/94	20C. DATE SIGNED 6/2/94

EXCEPTION TO STANDARD FORM 26 (REV.4-85)

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PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 PROJECT TITLE

The title of this project is as follows:

Analytical Support Activities to Lithuania

[End of Clause]

B.2 BRIEF DESCRIPTION OF WORK (MAR 1987)

The objectives of this work will be (1) to provide a framework for transferring U.S. nuclear safety related analytical techniques to experts in Lithuania and (2) to obtain an evaluation of the effectiveness of the RBMK-1500 ACS and how it compares with the VVER-440 model 213 design.

[End of Clause]

B.3 CONSIDERATION AND OBLIGATION--COST REIMBURSEMENT
(JUN 1988) ALTERNATE I (JUN 1988)

- (a) The total estimated cost to the Government for full performance under this contract is \$298,673.00.
- (b) The amount presently obligated by the Government with respect to this contract is \$118,000.00.
- (c) It is estimated that the amount currently allotted will cover performance through 9/30/94.

[End of Clause]

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 BACKGROUND

The Lithuanian government has assumed the responsibility for safeguarding, monitoring and regulating the RBMK-1500 plants. It has assumed this burden under very trying circumstances - there is a severe shortage of personnel trained in nuclear safety analysis, the available documentation for the plants is incomplete and not verified, the economic conditions in the country make it impossible to import the required experts from abroad.

One of the most important safety enhancing features of the RBMK-1500 plant is the Accident Confinement System (ACS) which provides a partial containment for the reactor and the coolant circuit. It is a vented, pressure suppression system designed to contain the energy and mass releases resulting from the rupture of a limited number of fuel channel pipes. It is an extensive and complex system. Its necessity and its potential limitations were demonstrated several months ago during the failed fuel channel accident at the Sosnovy Bor plant. (The Sosnovy Bor reactors are RBMK-1000's which have a similar, but not identical ACS as the RBMK-1500 plants at Ignalina.) An important factor in selecting this ACS is the similarity between the ACS for the Ignalina RBMK's and that of the VVER 440 Model 213. Thus analysis of the Ignalina ACS will provide information regarding the capabilities of the VVER 440 Model 213 systems. These types of nuclear power plants are employed in other Eastern European countries. Therefore, this effort would broaden the utility of these evaluations.

At the present time there is no independent verification of the potential performance of the Accident Confinement System (ACS) of the Ignalina power plants. An independent verification of the design characteristics of an important safety system is essential under all conditions. There are some additional circumstances which in this case underline this necessity. These include: (1) The available design computations use grossly simplified models; (2) Maintenance and potential improvement of the system is now the responsibility of the Lithuanian state.

The Ignalina Safety Group (ISAG) in Kaunas, Lithuania will collect, systematize and verify the design data of the Accident Confinement System (ACS) at the two RBMK-1500 units located at Ignalina, Lithuania. The design data will be verified by an on-site inspection of the facility. Concurrently, the ACS system will be modeled using state-of-the-art USNRC containment analysis tools (the CONTAIN code). The capabilities of the ACS will be assessed using a spectrum of energy and mass release source terms which bracket the loads produced by small and medium sized breaks.

C.1 (Continued)

The analytical work will be carried out cooperatively.

C.2 OBJECTIVES

The objectives of this work will be (1) to provide a framework for transferring U.S. nuclear safety related analytical techniques to experts in Lithuania and (2) to obtain an evaluation of the effectiveness of the RBMK-1500 ACS and how it compares with the VVER-440 model 213 design.

C.3 WORK REQUIREMENTS

The Contractor shall accomplish the following task in accordance with work completion schedule outlined in Section F.

C.3.1 TASK ONE

The Contractor shall initiate the collection, systematization and verification of the design data of the ACS at the Ignalina RBMK's. This will be primarily accomplished by members of the ISAG via close interaction with the contractor. The Contractor shall make an early visit to Lithuania so as to establish coordination and to familiarize the ISAG with the CONTAIN code and its requirements. During this visit, the Contractor will collect the information needed for Task Two.

C.3.2 TASK TWO

The Contractor shall collect available information on the ACS of the VVER 440 and determine the areas of similarity with the ACS of the Ignalina RBMK's.

C.3.3 TASK THREE

The Contractor shall procure one scientific computer workstation per the specification outlined in Section J Attachment J.4. The Contractor shall deliver this workstation to the Lithuanian Nuclear Regulatory Agency. The exact shipping and installation address for the computer workstation will be provided to the Contractor by the NRC Project Officer prior to shipment. The Contractor shall burn-in, test and install to proper working order the workstation including all software called for in Attachment J.4 at the Lithuanian Nuclear Regulatory Agency. The Contractor shall convey to the Government the standard commercial warranty from the original equipment manufacturer. In addition, the Contractor shall provide the Government with on-call, on-site 48 hour response warranty service on all parts and labor for the workstation for a period of one year after installation. The Contractor shall also accomplish all necessary paperwork and obtain all necessary approvals from the Department of Commerce

C.3.3 (Continued)

(and any other proper authority such as the U.S. or Lithuanian Customs Service) to export and ship the computer workstation to its final destination.

The Contractor shall ensure that the latest version of the CONTAIN code is suitable for the workstation to be provided to Lithuanian Nuclear Regulatory Agency. The Contractor shall convert, if necessary, the CONTAIN code for the workstation in a manner which ensures that all the latest capabilities and options of the CONTAIN code are available to the Lithuanian Nuclear Regulatory Agency. The Contractor shall install the CONTAIN code onto the workstation and ensure that the code is operating properly.

C.3.4 TASK FOUR

The Contractor shall model the RBMK ACS using the CONTAIN Code. This task shall entail the development of the two model types: a basic few node model (up to 8 nodes) for "scoping" calculations, and a design model (up to 24 nodes) for the analysis of selected break transients. Concurrently, the Contractor shall perform an assessment of the magnitude of the mass and energy release terms for a spectrum of coolant loss accidents. The assessment shall include a review of RBMK nuclear power plant accident evaluation reports issued by the NIKIET and Khurchatov Institutes in Moscow.

C.3.5 TASK FIVE

The Contractor shall prepare a training program for the ISAG representatives in Lithuania to teach the technical skills on how to use the CONTAIN code in the areas of thermal hydraulic analysis, transient analysis, severe accident analysis (with core melt) and analysis of the spread of radioactive materials after an accident. The Contractor shall conduct the training in the modeling and operation of the CONTAIN Code at the ISAG offices in Lithuania for the Lithuanian ISAG representatives.

C.4 GOVERNMENT FURNISHED DATA

The Government will provide the Contractor with a copy of the latest version of the CONTAIN code. This version is currently operational on a Sun workstation.

C.5 TRAVEL

Approximately one trip per year to Lithuania for a two to three week duration is anticipated.

[End of Clause]

C.6 NRCAR 2052.215-83 TRAVEL APPROVALS (JAN 1993)

- (a) All domestic travel requires the prior approval of the project officer.
- (b) All foreign travel must be approved in advance by the NRC on NRC Form 445 and must be in compliance with FAR 52.247-63 Preference for U.S. Flag Air Carriers. Foreign travel approval must be communicated in writing through the contracting officer.

[End of Clause]

SECTION D - PACKAGING AND MARKING

D.1 PACKAGING AND MARKING (MAR 1987)

The Contractor shall package material for shipment to the NRC in such a manner that will ensure 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.

[End of Clause]

SECTION E - INSPECTION AND ACCEPTANCE

E.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more 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

NUMBER	TITLE	DATE
52.246-3	INSPECTION OF SUPPLIES - COST-REIMBURSEMENT	APR 1984
52.246-5	INSPECTION OF SERVICES - COST-REIMBURSEMENT	APR 1984

[End of Clause]

E.2 PLACE OF INSPECTION AND ACCEPTANCE (MAR 1987)

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

[End of Clause]

SECTION F - DELIVERIES OR PERFORMANCE

F.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more 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

NUMBER	TITLE	DATE
52.212-13	STOP-WORK ORDER Alternate I (APR 1984)	AUG 1989

[End of Clause]

F.2 NRCAR 2052.212-70 PREPARATION OF TECHNICAL REPORTS (JAN 1993)

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 Management Directive 3.8, "Unclassified Contractor and Grantee Publications in the NUREG Series." Management Directive 3.8 is not applicable to any Contractor Spending Plan (CSP) and any Financial Status Report that may be included in this contract. (See Section J for List of Attachments).

[End of Clause]

F.3 NRCAR 2052.212-71 TECHNICAL PROGRESS REPORT

The contractor shall provide a monthly Technical Progress Report to the project officer and the contracting officer. The report is due within 15 calendar days after the end of the report period and must identify the title of the project, the contract number, Financial Identification Number (FIN), project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task/task order:

- (a) A listing of the efforts completed during the period, and 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

F.3 (Continued)

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.

[End of Clause]

F.4 NRCAR 2052.212-72 FINANCIAL STATUS REPORT

The contractor shall provide a quarterly Financial Status Report to the project officer and the contracting officer. The report is due within 15 calendar days after the end of the report period and must identify the title of the project, the contract number, Financial Identification Number (FIN), project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task:

- (a) Provide 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:
 - (1) Total estimated contract amount.
 - (2) Total funds obligated to date.
 - (3) Total costs incurred this reporting period.
 - (4) Total costs incurred to date.
 - (5) Provide a detail of all direct and indirect costs incurred during the reporting period for the entire contract or each task, if it is a task ordering contract. *consisting of the account ledgers*
 - (6) Balance of obligations remaining.
 - (7) Balance of funds required to complete contract/task order.
 - (8) Contractor Spending Plan (CSP) status:
 - (i) Projected percentage of completion cumulative through the report period for the project/task order as reflected in the current CSP.
 - (ii) Indicate if there has been a significant change in

F.4 (Continued)

the original CSP projection in either dollars or percentage of completion. Identify the change, the reasons for the change, whether there is any projected overrun, and when additional funds would be required. If there have been no changes to the original NRC-approved CSP projections, a written statement to that effect is sufficient in lieu of submitting a detailed response to item 8.

- (9) A revised CSP is required with the Financial Status Report whenever the contractor or the contracting officer has reason to believe that the total cost for performance of this contract will be either greater or substantially less than what had been previously estimated.
- (b) If the data in this report indicates a need for additional funding beyond that already obligated, this information may only be used as support to the official request for funding required in accordance with the Limitation of Cost (LOC) Clause (FAR 52.232-20) or the Limitation of Funds (LOF) Clause FAR 52.232-22.

[End of Clause]

F.5 PLACE OF DELIVERY--REPORTS (JUN 1988)

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

- (a) Project Officer (2 copies)

U.S. Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Attn: Allen Notafrancesco; MS NLN 344
Washington, D.C. 20555

- (b) Contracting Officer (1 copy)

[End of Clause]

F.6 DATA REQUIREMENT

The Contractor shall provide for NRC approval any training packages and lecture handouts prepared for training the Lithuanian personnel. The contractor shall allow three weeks for NRC review for each set of materials. After completion of the NRC review, the Contractor shall allow 1 month for iterations and resolution of NRC comments.

F.6 (Continued)

[End of Clause]

F.7 WORK COMPLETION SCHEDULE

The separate tasks delineated under Section C shall be completed by the Contractor in accordance with the following schedule:

TASK NO.	MONTHS AFTER THE CONTRACT EFFECTIVE DATE
1	3
2	5
3	4
4	18
5	24

[End of Clause]

F.8 DURATION OF CONTRACT PERIOD (MAR 1987)

This contract shall commence on the contract effective date and will expire 24 months thereafter.

[End of Clause]

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 NRCAR 2052.215-71 PROJECT OFFICER AUTHORITY
(JAN 1993)

- (a) The contracting officer's authorized representative hereinafter referred to as the project officer for this contract is:

Name: Allen Notafrancesco

Address: U.S. Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Mail Stop NLN 344
Washington, D.C. 20555

Telephone Number: (301) 492-3537

- (b) Performance of the work under this contract is subject to the technical direction of the NRC project officer. The term technical direction is defined to include the following:
- (1) 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.
 - (2) Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.
 - (3) Review and, where required by the contract, approval of technical 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:
- (1) Constitutes an assignment of work outside the general scope of the contract.
 - (2) Constitutes a change as defined in the "Changes" clause of this contract.
 - (3) In any way causes an increase or decrease in the total

G.1 (Continued)

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, settles any claim or dispute arising under the contract, or issues any unilateral directive whatever.
- (d) All technical directions must be issued in writing by the project officer or must be confirmed by the project officer in writing within ten (10) working days after verbal issuance. A copy of the written direction must be furnished 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 the project officer'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 paragraph (c) of this section, the contractor may not proceed but shall notify the contracting officer in writing within five (5) working days after the receipt of any instruction or direction and shall request the contracting officer to modify the contract accordingly. Upon receiving the 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 there to is subject to FAR 52.233-1 - Disputes.
 - (i) In addition to providing technical direction as defined in paragraph (b) of the section, the project officer shall:
 - (1) Monitor the contractor's technical progress, including surveillance and assessment of performance, and recommend to the contracting officer changes in requirements.

G.1 (Continued)

- (2) Assist the contractor in the resolution of technical problems encountered during performance.
- (3) Review all costs requested for reimbursement by the contractor and submit to the contracting officer recommendations for approval, disapproval, or suspension of payment for supplies and services required under this contract.

[End of Clause]

G.2 NRCAR 2052.215-82 TRAVEL REIMBURSEMENT
- ALTERNATE 1 (JAN 1993)

- (a) The contractor is encouraged to use Government contract airlines, AMTRAK rail services, and discount hotel/motel properties in order to reduce the cost of travel under this contract. The contracting officer shall, upon request, provide each traveler with a letter of identification which is required in order to participate in this program. The Federal Travel Directory (FTD) identifies carriers, contract fares, schedules, payment conditions, and hotel/motel properties which offer their services and rates to Government contractor personnel traveling on official business under this contract. The FTD, which is issued monthly, may be purchased from the U.S. Government Printing Office, Washington, DC 20402.
- (b) The contractor will be reimbursed for reasonable travel costs incurred directly and specifically in the performance of this contract. The cost limitations for travel costs are determined in accordance with the specific travel regulations cited in FAR 31.205-46, as are in effect on the date of the trip. Travel costs for research and related activities performed at State and nonprofit institutions, in accordance with Section 12 of Pub. L. 100-679, shall be charged in accordance with the contractor's institutional policy to the degree that the limitations of Office of Management and Budget (OMB) guidance are not exceeded. Applicable guidance documents include OMB Circular A-87, Cost Principles for State and Local Governments; OMB Circular A-122, Cost Principles for Nonprofit Organizations; and OMB Circular A-21, Cost Principles for Educational Institutions.
- (c) When the Government changes the Federal Travel Regulations, or other applicable regulations, it is the responsibility of the contractor to notify the contracting officer in accordance with the Limitations 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 due to the changes.

G.2 (Continued)

(End of Clause)

G.3 NRCAR 2052.216-72 INDIRECT COST RATES
- ALTERNATE 1 (JAN 1993)

The contractor is reimbursed for allowable indirect costs in accordance with the following predetermined rates:

Indirect Cost Rate 48%

[End of Clause]

SECTION H - SPECIAL CONTRACT REQUIREMENTS**H.1 NRCAR 2052.204-71 SITE ACCESS BADGE
REQUIREMENTS (JAN 1993)**

During the life of this contract, the rights of ingress and egress for contractor personnel must be made available as required. In this regard, all contractor personnel whose duties under this contract require their presence on-site shall be clearly identifiable by a distinctive badge furnished by the Government. The Project Officer shall assist the contractor in obtaining the badges for the contractor personnel. It is the sole responsibility of the contractor to ensure that each employee has proper identification at all times. All prescribed identification must be immediately delivered to the Security Office for cancellation or disposition upon the termination of employment of any contractor personnel. Contractor personnel must have this identification in their possession during on-site performance under this contract. It is the contractor's duty to assure that contractor personnel enter only those work areas necessary for performance of contract work, and to assure the safeguarding of any Government records or data that contractor personnel may come into contact with.

[End of Clause]

H.2 NRCAR 2052.215-70 KEY PERSONNEL (JAN 1993)

- (a) The following individuals are considered to be essential to the successful performance of the work hereunder:

Dr. Kazys Almenas
Mr. William Arcieri

The contractor agrees that personnel may not be removed from the contract work or replaced without compliance with paragraphs (b) and (c) of this section.

- (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

H.2 (Continued)

officer, promptly replace the personnel with personnel of at least substantially equal ability and qualifications.

- (c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the contracting officer to evaluate the proposed substitution. The contracting officer or his/her authorized representative shall evaluate the request and promptly notify the contractor of his or her approval or disapproval 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. If the contracting officer 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.

[End of Clause]

H.3 NRCAR 2052.235-71 PUBLICATION OF RESEARCH RESULTS - UNIVERSITIES (JAN 1993)

- (a) The principal investigator(s)/contractor shall comply with the provisions of NRC Handbook 3.8 (formerly MC 3202) and NRC Manual Chapter 3206 regarding publication in refereed scientific and engineering journals 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.
- (b) The principal investigator(s)/contractor may publish the results of this work in refereed scientific and engineering journals or in open literature and present papers at public or association meetings at interim stages of work, in addition to submitting to NRC the final reports and other deliverables required under this contract. However, such publication and papers shall focus on advances in science and technology and minimize conclusions and/or recommendations which may have regulatory implications.
- (c) The principal investigator(s) shall coordinate all such

H.3 (Continued)

publications with, and transmit a copy of the proposed article or paper to, the NRC Contracting Officer or Project Officer, prior to publication. The NRC agrees to review and provide comments within thirty (30) days after receipt of a proposed publication. However, in those cases where the information to be published is (1) subject to Commission approval, (2) has not been ruled upon, or (3) disapproved by the Commission, the NRC reserves the right to disapprove or delay the publication.

Further, if the NRC disagrees with the proposed publication for any reason, it reserves the right to require that any publication not identify the NRC's sponsorship of the work and that any associated publication costs shall be borne by the contractor.

[End of Clause]

H.4 GOVERNMENT FURNISHED EQUIPMENT/PROPERTY - NONE PROVIDED
(JUN 1988)

The Government will not provide any equipment/property under this contract.

[End of Clause]

H.5 RISK OF LOSS OR DAMAGE--PURCHASE (MAR 1987)

- (a) The Government is relieved of all risks of loss or damage to the equipment, up to and including the day prior to the first day of a successful performance period, except for:
- (1) Loss or damage caused by nuclear reaction, nuclear radiation, radioactive contamination, war, insurrection, civil strife, rebellion, weapons of war; or
 - (2) Negligence on the part of the Government or its agents, provided, however, that the Government shall be relieved of the liability for such risks of loss or damage due to negligence if any commercial customer of the Contractor is relieved of such liability under like circumstances.
- (b) If the Government is liable for loss or damage of a machine, the Contractor shall have the option to restore the machine to its previous condition, in which event the Government shall pay the Contractor to perform such restoration at the Contractor's then-current prices, terms, and conditions. If the Contractor elects not to restore the machine, the Government may, at its own expense, restore the machine to its previous condition. If, however, the machine is lost or damaged beyond repair, the Government shall pay to the Contractor the same price for the machine as the Government would have paid had it purchased the machine on the day prior

H.5 (Continued)

to the loss or damage under the provisions of this contract. This clause shall govern risk of loss or damage, notwithstanding any other provisions of this contract relating to title, payment, or ownership.

[End of Clause]

H.6 REPLACEMENT PART AVAILABILITY (ADPE) (MAR 1987)

The Contractor guarantees that replacement parts for each piece of equipment in this contract will be available for the system's (item's) life of . The Contractor shall notify the Government 12 months before the end of the system's (item's) life as to the continuing availability of parts subsequent to this period. If parts will not be available from the Contractor, then the Government may require the Contractor to furnish data that is available to assist the Government to obtain such parts from another source.

[End of Clause]

H.7 ENGINEERING CHANGES (ADP REQUIREMENTS) (JUN 1988)

- (a) After contract award, the Government may solicit, and the Contractor is encouraged to propose independently, engineering changes to the equipment, software specifications or other requirements of this contract. These changes may be proposed to save money, to improve performance, to save energy, or to satisfy increased data processing requirements. However, if proposed changes relating to improved performance are necessary to meet increased data processing requirements of the user, those requirements shall not exceed the contract requirements by more than 25 percent. If the proposed changes are acceptable to both parties, the Contractor shall submit a price change proposal to the Government for evaluation within 30 days of such acceptance. Those proposed engineering changes that are acceptable to the Government will be processed as modifications to the contract.
- (b) As a minimum, the following information shall be submitted by the Contractor with each proposal:
- (1) A description of the difference between the existing contract requirement and the proposed change, and the comparative advantages and disadvantages of each;
 - (2) Itemized requirements of the contract which must be changed if the proposal is adopted, and the proposed revision to the contract for each such change;

H.7 (Continued)

- (3) An estimate of the changes in performance and cost, if any, that will result from adoption of the proposal;
 - (4) An evaluation of the effects the proposed change would have on collateral costs to the Government such as Government-furnished property costs, costs of related items, and costs of maintenance and operation; and
 - (5) A statement of the time by which the change order adopting the proposal must be issued so as to obtain the maximum benefits of the changes during the remainder of this contract, also, any effect on the contract completion time or delivery schedule shall be identified.
- (c) Engineering change proposals submitted to the Contracting Officer shall be processed expeditiously. The Government shall not be liable for proposal preparation costs or any delay in acting upon any proposal submitted pursuant to this clause. The Contractor has the right to withdraw, in whole or in part, any engineering change proposal not accepted by the Government within the period specified in the engineering change proposal. The decision of the Contracting Officer as to the acceptance of any such proposal under this contract shall be final and shall not be subject to the "Disputes" clause of this contract.
- (d) The Contracting Officer may accept any engineering change proposal submitted pursuant to this clause by giving the Contractor written notice thereof. This written notice may be given by issuance of a modification to this contract. The Contractor shall remain obligated to perform in accordance with the terms of the existing contract.
- (e) If an engineering change proposal submitted pursuant to this clause is accepted and applied to this contract, an equitable adjustment in the contract price and in any other affected provisions of this contract shall be made in accordance with this clause and other applicable clauses of this contract. When the cost of performance of this contract is increased or decreased as a result of the change, the equitable adjustment increasing or decreasing the contract price shall be in accordance with the "Changes" clause rather than under this clause, but the resulting contract modification shall state that it is made pursuant to this clause.
- (f) The Contractor is requested to identify specifically any information contained in the engineering change proposal which it prefers not be disclosed to the public. The identification of information as confidential and/or proprietary is for information purposes only and shall not be binding on the

H.7 (Continued)

Government to prevent disclosure of such information. The Contractor is advised that such information may be subject to release upon request pursuant to the Freedom of Information Act (5 U.S.C. 552).

[End of Clause]

H.8 GLOSSARY OF ADP TERMS (JUN 1988)

The definitions and explanations set forth in this glossary are an integral part of the terms and conditions of this contract.

- (a) Data Processing Equipment System and/or Subsystem. The complement of individual machines and operating software furnished by the Contractor and acquired to operate as an integrated group.
- (b) Equipment. An all inclusive term which refers either to an individual machine or to the total complement of machines required to operate as an integrated group.
- (c) Equipment and/or Operating Software Failure. A malfunction in the contractor-supplied equipment and/or operating software, excluding all external factors, which prevents the accomplishment of the job.
- (d) Installation Date. The date by which the Contractor must have the ordered equipment ready for use by the Government.
- (e) Machine. An individual unit, including features installed thereon, of a data processing system, or subsystem, identified by a type and/or model number, such as a central processing unit, additional memory module, a tape unit, a card reader, etc.
- (f) Mechanical Replacement. The replacement of one machine for another occasioned by the mechanical condition of the equipment being replaced.
- (g) Operating Software. Those routines that interface directly with hardware (including peripheral devices), the computer operations, applications and utility programs.
- (h) Operational Use Time. The time during which equipment is in actual operation, exclusive of idle time, standby time, or maintenance time due to machine failure; not synonymous with "power-off" time.
- (i) Preventive Maintenance. That maintenance performed by the Contractor which is designed to keep the equipment in proper operating condition. It is performed on a scheduled basis.

H.8 (Continued)

- (j) Principal Period of Maintenance. Any 9 consecutive hours per day, including an official meal period not to exceed 1 hour per day, between the hours of and , Monday through Friday, excluding holidays observed at the NRC installation.
- (k) Extended Maintenance Period Option. Option to require maintenance service during any extension of the Principal Period of Maintenance at a fixed price for such period, regardless of the number of calls requested during such period.
- (l) Remedial Maintenance. That maintenance performed by the Contractor which results from Contractor supplied equipment or operating software failure. It is performed as required and is therefore on an unscheduled basis.
- (m) Total Monthly Charges.
 - (1) Rental. All monthly charges for the use (rental) of equipment and software and for maintenance thereof.
 - (2) Maintenance of Government-owned. All monthly charges for the maintenance of equipment and software supplied under this contract.
- (n) Alteration. An alteration is defined as any change to a machine which deviates from the physical, mechanical, or electrical machine design (including microcode), whether or not additional devices or parts are required.
- (o) Attachment. An attachment is defined as the mechanical, electrical, or electronic interconnection of equipment manufactured by other than the original equipment manufacturer and connected to the machine or system.

[End of Clause]

H.9 FIPS PUBS AND STANDARDS COMPLIANCE (MAR 1987)

In no case shall the Contractor or any subcontractor take any action or use any replacement parts that would result in equipment that is not in compliance with applicable FIPS PUBS and Standards (See Section J for List of Attachments) without written approval of the Contracting Officer.

[End of Clause]

H.10 PROHIBITION ON PAYMENT OF FOREIGN DUTIES AND TAXES

The Contractor shall not pay any foreign customs duties or other

H.10 (Continued)

foreign import, value added, or sales tax on the government property to be delivered to the Lithuanian government organization under this contract. The Government will not reimburse the Contractor for the incurrence of any of these costs.

[End of Clause]

PART II - CONTRACT CLAUSES
SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more 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

NUMBER	TITLE	DATE
52.202-1	DEFINITIONS	SEP 1991
52.203-1	OFFICIALS NOT TO BENEFIT	APR 1984
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	APR 1984
52.203-7	ANTI-KICKBACK PROCEDURES	OCT 1988
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	SEP 1990
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	JAN 1990
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	NOV 1992
52.210-5	NEW MATERIAL	APR 1984
52.210-7	USED OR RECONDITIONED MATERIAL, RESIDUAL INVENTORY, AND FORMER GOVERNMENT SURPLUS PROPERTY	APR 1984
52.215-1	EXAMINATION OF RECORDS BY COMPTROLLER GENERAL	FEB 1993
52.215-2	AUDIT - NEGOTIATION Alternate II (FEB 1993)	FEB 1993
52.215-22	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA	JAN 1991
52.215-24	SUBCONTRACTOR COST OR PRICING DATA	DEC 1991
52.215-33	ORDER OF PRECEDENCE	JAN 1986
52.215-39	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (PRB)	JUL 1991
52.216-11	COST CONTRACT - NO FEE	APR 1984
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS	FEB 1990

I.1 (Continued)

NUMBER	TITLE	DATE
52.219-13	UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES	AUG 1986
52.220-3	UTILIZATION OF LABOR SURPLUS AREA CONCERNS	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
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA	JAN 1988
52.223-2	CLEAN AIR AND WATER	APR 1984
52.223-6	DRUG-FREE WORKPLACE	JUL 1990
52.225-11	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	MAY 1992
52.225-17	BUY AMERICAN ACT - SUPPLIES UNDER EUROPEAN COMMUNITY AGREEMENT	JAN 1994
52.227-1	AUTHORIZATION AND CONSENT	APR 1984
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	APR 1984
52.227-14	RIGHTS IN DATA - GENERAL	JUN 1987
52.228-7	INSURANCE - LIABILITY TO THIRD PERSONS Alternate I (APR 1984)	APR 1984
52.232-17	INTEREST	JAN 1991
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT	SEP 1992
52.232-28	ELECTRONIC FUNDS TRANSFER PAYMENT METHODS	APR 1989
52.233-1	DISPUTES	DEC 1991
52.233-3	PROTEST AFTER AWARD Alternate I (JUN 1985)	JUN 1985
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-13	BANKRUPTCY	APR 1991
52.244-2	SUBCONTRACTS (COST-REIMBURSEMENT AND LETTER CONTRACTS)	JUL 1985
52.244-5	COMPETITION IN SUBCONTRACTING	APR 1984
52.246-25	LIMITATION OF LIABILITY - SERVICES	APR 1984
52.249-6	TERMINATION (COST-REIMBURSEMENT)	MAY 1986
52.253-1	COMPUTER GENERATED FORMS	JAN 1991
52.243-2	CHANGES-COST REIMBURSEMENT ALTERNATE II (APR 1984)	AUG 1987

(End of Clause)

I.1 (Continued)

NUMBER	TITLE	DATE
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I.2 52.203-9 REQUIREMENT FOR CERTIFICATE OF PROCUREMENT INTEGRITY--MODIFICATION (NOV 1990)

- (a) Definitions. The definitions set forth in FAR 3.104-4 are hereby incorporated in this clause.
- (b) The Contractor agrees that it will execute the certification set forth in paragraph (c) of this clause when requested by the Contracting Officer in connection with the execution of any modification of this contract.
- (c) Certification. As required in paragraph (b) of this clause, the officer or employee responsible for the modification proposal shall execute the following certification:

CERTIFICATE OF PROCUREMENT INTEGRITY--
MODIFICATION (NOV 1990)

(1) I, [Name of certifier] _____, am the officer or employee responsible for the preparation of this modification proposal and hereby certify that, to the best of my knowledge and belief, with the exception of any information described in this certification, I have no information concerning a violation or possible violation of subsection 27(a), (b), (d), or (f) of the Office of Federal Procurement Policy Act, as amended* (41 U.S.C. 423), (hereinafter referred to as "the Act"), as implemented in the FAR, occurring during the conduct of this procurement (contract and modification number).

(2) As required by subsection 27(e)(1)(B) of the Act, I further certify that to the best of my knowledge and belief, each officer, employee, agent, representative, and consultant of [Name of Offeror] _____ who has participated personally and substantially in the preparation or submission of this proposal has certified that he or she is familiar with, and will comply with, the requirements of subsection 27(a) of the Act, as implemented in the FAR, and will report immediately to me any information concerning a violation or possible violation of subsections 27(a), (b), (d), or (f) of the Act, as implemented in the FAR, pertaining to this procurement.

(3) Violations or possible violations: (Continue on plain bond paper if necessary and label Certificate of Procurement Integrity--Modification (Continuation Sheet), ENTER NONE IF

I.2 (Continued)

NONE EXISTS)

[Signature of the officer or employee responsible for the modification proposal and date]

[Typed name of the officer or employee responsible for the modification proposal]

* Subsections 27(a), (b), and (d) are effective on December 1, 1990. Subsection 27(f) is effective on June 1, 1991.

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER TITLE 18, UNITED STATES CODE, SECTION 1001.

- (d) In making the certification in paragraph (2) of the certificate, the officer or employee of the competing Contractor responsible for the offer or bid, may rely upon a one-time certification from each individual required to submit a certification to the competing Contractor, supplemented by periodic training. These certifications shall be obtained at the earliest possible date after an individual required to certify begins employment or association with the contractor. If a contractor decides to rely on a certification executed prior to the suspension of section 27 (i.e., prior to December 1, 1989), the Contractor shall ensure that an individual who has so certified is notified that section 27 has been reinstated. These certifications shall be maintained by the Contractor for a period of 6 years from the date a certifying employee's employment with the company ends or, for an agency, representative, or consultant, 6 years from the date such individual ceases to act on behalf of the contractor.
- (e) The certification required by paragraph (c) of this clause is a material representation of fact upon which reliance will be placed in executing this modification.

[End of Clause]

I.3 52.216-7 ALLOWABLE COST AND PAYMENT (JUL 1991)

- (a) Invoicing. The Government shall make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with 31.3 of the Federal Acquisition Regulation (FAR) in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.
- (b) Reimbursing costs. (1) For the purpose of reimbursing allowable costs (except as provided in subparagraph (2) below, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term "costs" includes only--
- (i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;
 - (ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for--
 - (A) Materials issued from the Contractor's inventory and placed in the production process for use on the contract;
 - (B) Direct labor;
 - (C) Direct travel;
 - (D) Other direct in-house costs; and
 - (E) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and
 - (iii) The amount of progress payments that have been paid to the Contractor's subcontractors under similar cost standards.
- (2) Contractor contributions to any pension or other postretirement benefit, profit-sharing or employee stock

I.3 (Continued)

ownership plan funds that are paid quarterly or more often may be included in indirect costs for payment purposes; Provided, that the Contractor pays the contribution to the fund within 30 days after the close of the period covered.

- (3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) below, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) below.
 - (4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.
- (c) Small business concerns. A small business concern may be paid more often than every 2 weeks and may invoice and be paid for recorded costs for items or services purchased directly for the contract, even though the concern has not yet paid for those items or services.
- (d) Final indirect cost rates. (1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.
- (2) The Contractor shall, within 90 days after the expiration of each of its fiscal years, or by a later date approved by the Contracting Officer, submit to the cognizant Contracting Officer responsible for negotiating its final indirect cost rates and, if required by agency procedures, to the cognizant audit activity proposed final indirect cost rates for that period and supporting cost data specifying the contract and/or subcontract to which the rates apply. The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractor's proposal.
 - (3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed-upon final annual indirect cost rates, (ii) the bases to which the

I.3 (Continued)

rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

- (4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.
- (e) Billing rates. Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates--
- (1) Shall be the anticipated final rates; and
 - (2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.
- (f) Quick-closeout procedures. When the Contractor and Contracting Officer agree, the quick-closeout procedures of Subpart 42.7 of the FAR may be used.
- (g) Audit. At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be (1) reduced by amounts found by the Contracting Officer not to constitute allowable costs or (2) adjusted for prior overpayments or underpayments.
- (h) Final payment. (1) The Contractor shall submit a completion invoice or voucher, designated as such, promptly upon completion of the work, but no later than one year (or longer, as the Contracting Officer may approve in writing) from the completion date. Upon approval of that invoice or voucher, and upon the Contractor's compliance with all terms of this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.
- (2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest,

I.3 (Continued)

if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver--

- (i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and
- (ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except--
 - (A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;
 - (B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and
 - (C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractor's indemnification of the Government against patent liability.

[End of Clause]

I.4 52.225-9 BUY AMERICAN ACT--TRADE AGREEMENTS
--BALANCE OF PAYMENTS PROGRAM (JAN 1994)

- (a) This clause implements the Buy American Act (41 U.S.C. 10), the Trade Agreements Act of 1979 (19 U.S.C. 2501-2582), the North American Free Trade Agreement (NAFTA) Implementation Act (Pub. L. 103-182, 107 Stat. 2057) and the Balance of Payments Program by providing a preference for domestic end products over foreign end products, except for certain foreign end products which meet the requirements for classification as designated, NAFTA, or Caribbean Basin country end products.

"Caribbean Basin country end product," as used in this clause, means an article that (1) is wholly the growth, product, or manufacture of a Caribbean Basin country (as defined in section 25.401 of the Federal Acquisition Regulation (FAR)), or (2) in the case of an article which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed. The term includes services (except transportation services) incidental to its supply; provided that the value of those incidental services does not exceed that of the product itself. It does not include service contracts as such. The term excludes products that are excluded from duty free treatment for Caribbean countries under the Caribbean Basin Economic Recovery Act (19 U.S.C. 2703(b)). These exclusions presently consist of (i) textiles and apparel articles that are subject to textile agreements; (ii) footwear, handbags, luggage, flat goods, work gloves, and leather wearing apparel not designated as eligible articles for the purpose of the Generalized System of Preferences under Title V of the Trade Act of 1974; (iii) tuna, prepared or preserved in any manner in airtight containers; (iv) petroleum, or any product derived from petroleum; and (v) watches and watch parts (including cases, bracelets and straps), of whatever type including, but not limited to, mechanical, quartz digital or quartz analog, if such watches and watch parts contain any material that is the product of any country to which the Tariff Schedule of the United States (TSUS) column 2 rates of duty apply.

"Components," as used in this clause, means those articles, materials, and supplies incorporated directly into the end products.

"Designated country end product," as used in this clause, means an article that (1) is wholly the growth, product, or manufacture of the designated country (as defined in section 25.401 of the Federal Acquisition Regulation (FAR)), or (2) in the case of an article which consists in whole or in part of materials from another country or instrumentality, has been

I.4 (Continued)

substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed. The term includes services (except transportation services) incidental to its supply, provided that the value of those incidental services does not exceed that of the product itself. It does not include service contracts as such.

"Domestic end product," as used in this clause, means (1) an unmanufactured end product mined or produced in the United States, or (2) an end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. A component shall also be considered to have been mined, produced, or manufactured in the United States (regardless of its source in fact) if the end product in which it is incorporated is manufactured in the United States and the component is of a class or kind (i) determined by the Government to be not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality, or (ii) to which the agency head concerned has determined that it would be inconsistent with the public interest to apply the restrictions of the Buy American Act.

"End products," as used in this clause, means those articles, materials, and supplies to be acquired under this contract for public use.

"Foreign end product," as used in this clause, means an end product other than a domestic end product.

"NAFTA country", as used in this clause, means Canada or Mexico.

"NAFTA country end product", as used in this clause, means an article that (1) is wholly the growth, product, or manufacture of a NAFTA country, or (2) in the case of an article which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed in a NAFTA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term includes service (except transportation services) incidental to its supply; provided, that the value of those incidental services does not exceed that of the product itself. It does not include service contracts as such.

- (b) The Contracting Officer has determined that the Trade Agreements Act and NAFTA apply to this acquisition. Unless otherwise specified, the Acts apply to all items in the

I.4 (Continued)

schedule. The Contractor agrees to deliver under this contract only domestic end products unless, in its offer, it specifies delivery of foreign end products in the provision entitled "Buy American--Trade Agreements--Balance of Payments Program Certificate." An offer certifying that a designated, NAFTA, or Caribbean Basin country end product will be supplied requires the Contractor to supply a designated, NAFTA, or a Caribbean Basin country end product or, at the Contractor's option, a domestic end product. Contractors may not supply a foreign end product for line items subject to the Trade Agreements Act unless the foreign end product is a designated, NAFTA, or a Caribbean Basin country end product (see FAR 25.401), or unless a waiver is granted under section 302 of the Trade Agreements Act of 1979 (see FAR 25.402(c)).

- (c) Offers will be evaluated in accordance with the policies and procedures of Subpart 25.4 of the FAR.

I.5 201-39.5202-3 PROCUREMENT AUTHORITY (OCT 1990 FIRMR)

This acquisition is being conducted under the regulatory blanket delegation of GSA's exclusive procurement authority for FIP resources.

I.6 TRADE AGREEMENTS ACT (MAY 1991)

- (a) This clause implements the Trade Agreements Act of 1979 (19 U.S.C. 2501-2592) by providing a preference for U.S. made end products, designated country end products, and Caribbean Basin country end products over other products.

"Caribbean Basin country end products," as used in this clause, means an article that: (1) is wholly the growth, product, or manufacture of a Caribbean Basin country (as defined in section 25.401 of the Federal Acquisition Regulation (FAR)), or (2) in the case of an article which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed. The term includes services (except transportation services) incidental to its supply; provided that the value of those incidental services does not exceed that of the product itself. It does not include service contracts as such. The term excludes products that are excluded from duty free treatment from Caribbean countries under the Caribbean Basin Economic Recovery Act (19 U.S.C. 2703(b)). These exclusions presently consist of (i) textiles and apparel articles that are subject to textile agreements; (ii) footwear, handbags, luggage, flat goods, work gloves, and leather wearing apparel not designated as eligible articles

I.6 (Continued)

for the purpose of the Generalized System of Preference under title V of the Trade Act of 1974; (iii) tuna, prepared or preserved in any manner in airtight containers; (iv) petroleum, or any product derived from petroleum; and (v) watches and watch parts (including cases, bracelets and straps) of whatever type including, but not limited to, mechanical, quartz digital or quartz analog, if such watches or watch parts contain any material that is the product of any country to which the Tariff Schedule of the United States (TSUS) column 2 rates of duty apply.

"Designated country end product," as used in this clause, means an article that (1) is wholly the growth, product, or manufacture of the designated country (as defined in section 25.401 of the Federal Acquisition Regulation (FAR)), or (2) in the case of an article which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed. The term includes services (except transportation services) incidental to its supply, provided that the value of those incidental services does not exceed that of the product itself. It does not include service contracts as such.

"End products," as used in this clause, means those articles, materials, and supplies to be acquired under this contract for public use.

"U.S. made end product," as used in this clause, means an article which (1) is wholly the growth, product, or manufacture of the United States, or (2) in the case of an article which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

"Nondesignated country end products," as used in this clause, means any end product which is not a U.S. made end product or designated country end product.

"United States," as used in this clause, means the United States, its possessions, Puerto Rico, and any other place which is subject to its jurisdiction, but does not include leased bases or trust territories.

- (b) The Contractor agrees to deliver under this contract only U.S. made end products, designated country end products, Caribbean Basin country end product, or, if a national interest waiver

I.6 (Continued)

is granted under section 302 of the Trade Agreements Act of 1979, nondesignated country end products. Only if such waiver is granted may a nondesignated country end product be delivered under this contract(s).

- (c) Offers will be evaluated in accordance with the policies and procedures of part 25 of the FAR except that offers of U.S. made end products shall be evaluated without the restrictions of the Buy American Act or the Balance of Payments Program.

[End of Clause]

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

J.1 ATTACHMENTS (MAR 1987)

Attachment Number	Title
1	Billing Instructions
2	NRC Handbook 3.8
3	Standard Form 1411 with Instructions
4	Contractor Spending Plan (CSP) Instructions
5	Workstation Specifications

J.2 FEDERAL ADP AND TELECOMMUNICATIONS STANDARDS CHECKLIST (APR 1993)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 1-2, Code for Information Interchange, Its Representations, Subsets, and Extensions
.....	..X..	.....	FIPS 2-1, Perforated Tape Code for Information Interchange
.....	..X..	.....	FIPS 4-1, Calendar Date
.....	..X..	.....	FIPS 5-2, Codes for the Identification of the States, District of Columbia, and the Outlying Areas of the United States, and Associated Areas
.....	..X..	.....	FIPS 6-4, Counties and County Equivalents of the States of the United States and District of Columbia
.....	..X..	.....	FIPS 8-5, Standard Metropolitan Statistical Areas
.....	..X..	.....	FIPS 9-1, Congressional Districts of the United States
.....	..X..	.....	FIPS 10-3, Countries, Dependencies and areas of Special Sovereignty

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 13, Rectangular Holes in Twelve-row Punched Cards
.....	..X..	.....	FIPS 14-1, Hollerith Punched Card Code
.....	..X..	.....	FIPS 16-1, Bit Sequencing of the Code for Information Interchange in Serial-by-Bit Data Transmission
.....	..X..	.....	FIPS 17-1, Character Structure and Character Parity Sense for Serial-by-Bit Data Communication in the Code for Information Interchange
.....	..X..	.....	FIPS 21-3, COBOL
.....	..X..	.....	FIPS 22-1, Synchronous Signaling Rates Between Data Terminal and Data Communication Equipment
.....	..X..	.....	FIPS 26, One-Inch Wide Perforated Paper Tape for Information Interchange
.....	..X..	.....	FIPS 27, Take-up Reels for One-Inch Perforated Tape for Information Interchange
..X..	.....	.....	FIPS 30, Software Summary for Describing Computer Programs and Automated Data Systems
.....	..X..	.....	FIPS 32-1, Optical Character Recognition Character Sets
.....	..X..	.....	FIPS 33-1, Character Set for Handprinting
.....	..X..	.....	FIPS 46-1, Data Encryption Standard (DES)
.....	..X..	.....	FIPS 53, Transmittal Form for Describing Computer Magnetic Tape File Properties
.....	..X..	.....	FIPS 54-1, Computer Output Microform (COM) Formats and Reduction Ratios, 16 mm and 105 mm
.....	..X..	.....	FIPS 58-1, Representations of Local Time of the Day for Information Interchange
.....	..X..	.....	FIPS 59, Representations of Universal Time, Local Time Differentials and United States Time Zone References for Information Interchange

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 66, Standard Industrial Classification (SIC) Codes
.....	..X..	.....	FIPS 68-2, BASIC
..X..	.....	.....	FIPS 69-1, PORTTRAN
.....	..X..	.....	FIPS 70-1, Representation of Geographic Point Locations for Information Interchange
.....	..X..	.....	FIPS 71, Advanced Data Communications Control Procedures (ADCCP)
.....	..X..	.....	FIPS 81, Data Encryption Standard (DES) Modes of Operation
.....	..X..	.....	FIPS 84, Microfilm Readers
.....	..X..	.....	FIPS 85, Optical Character Recognition (OCR) Inks
.....	..X..	.....	FIPS 86, Additional Controls For Use With American National Standard Code for Information Interchange
.....	..X..	.....	FIPS 89, Federal Standard for Optical Character Recognition (OCR) Character Positioning
.....	..X..	.....	FIPS 95, Code for the Identification of Federal and Federally-Assisted Organizations
.....	..X..	.....	FIPS 100-1, Interface between Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Operation with Packet-Switched Data Communication Networks (PSDN) or Between Two DTEs by Dedicated Circuits
.....	..X..	.....	FIPS 103, Codes for the Identification of Hydrologic Units in the United States and the Caribbean Outlying Areas
.....	..X..	.....	FIPS 104-1, ANS Codes for the Representation of Names of Countries, Dependencies, and Areas of Special Sovereignty for Information Interchange

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 107, Local Area Networks: Baseband Carrier Sense Multiple Access with Collision Detection Access Method and Physical Layer Specifications and Link Layer Protocol
.....	..X..	.....	FIPS 108, Alphanumeric Computer Output Microform Quality Test Slide
.....	..X..	.....	FIPS 109, PASCAL
.....	..X..	.....	FIPS 112, Password Usage
..X..	.....	.....	FIPS 113, Computer Data Authentication
.....	..X..	.....	FIPS 119, Ada
.....	..X..	.....	FIPS 120-1, Graphical Kernel System (GKS)
.....	..X..	.....	FIPS 121, Videotex/Teletext Presentation Level Protocol Syntax (North America PLPS)
.....	..X..	.....	FIPS 123, Specification for a Data Descriptive File for Information Interchange (DDF)
.....	..X..	.....	FIPS 125, MUMPS Programming Language
.....	..X..	.....	FIPS 126, Database Language NDL
.....	..X..	.....	FIPS 127-1, Database Language SQL
.....	..X..	.....	FIPS 128-1, Computer Graphics Metafile (CGM)
.....	..X..	.....	FIPS 129, Optical Character Recognition (OCR) Dot Matrix character sets for OCR-MA
.....	..X..	.....	FIPS 137, Analog to Digital Conversion of Voice by 2400 Bits/Second Linear Predictive Coding
.....	..X..	.....	FIPS 138, Electrical Characteristics of Balanced Voltage Digital Interface Circuits
.....	..X..	.....	FIPS 139, Interoperability and Security Requirements for Use of the Data Encryption Standard in the Physical Layer of Data Communications

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 140, General Security Requirements for Equipment Using the Data Encryption Standard
.....	..X..	.....	FIPS 141, Interoperability and Security Requirements for Use of the Data Encryption Standard with CCITT Group 3 Facsimile Equipment
.....	..X..	.....	FIPS 142, Electrical Characteristics of Unbalanced Voltage Digital Interface Circuits
.....	..X..	.....	FIPS 143, General Purpose 37-Position and 9-Position Interface Between Data Terminal Equipment and Data Circuit-Terminating Equipment
.....	..X..	.....	FIPS 144, Data Communications Systems and Service-user Oriented Performance Parameters
.....	..X..	.....	FIPS 146-1, GOSIP: Government Open System Interconnection Profile
.....	..X..	.....	FIPS 147, Group 3 Facsimile Apparatus of Document Transmission
.....	..X..	.....	FIPS 148, Procedures for Document Facsimile Transmission
.....	..X..	.....	FIPS 149, General Aspects of Group 4 Facsimile Apparatus
.....	..X..	.....	FIPS 150, Facsimile Coding Schemes and Coding Control Functions for Group 4 Facsimile Apparatus
.....	..X..	.....	FIPS 151-1, Portable Operating Systems Interface for Computer Environments (POSIX)
.....	..X..	.....	FIPS 152, Standard Generalized Markup Language (SGML)
.....	..X..	.....	FIPS 153, Programmer's Hierarchical Interactive Graphics System (PHIGS)

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 154, High Speed 25-position for Data Terminal Equipment and Data Circuit-terminating Equipment
.....	..X..	.....	FIPS 155, Data Communication Systems and Services User-oriented Performance Measurement Methods
.....	..X..	.....	FIPS 156, Information Resource Dictionary System (IRDS)
.....	..X..	.....	FIPS 159, Detail Specifications for 62.5 uM Core Diameter/125 uM Cladding Diameter Class Ia Multimode, Graded-Index Optical Waveguide Fibers
.....	..X..	.....	FIPS 160, C
.....	..X..	.....	FIPS 161, Electronic Data Interchange (EDI)
.....	..X..	.....	FIPS 162, 1,200 bits per Second Two-Wire Duplex Modems for Data Communications use on Telephone- Type Circuits
.....	..X..	.....	FIPS 163, 2,400 Bits per Second Two-Wire Duplex Modems for Data Communications use on Telephone- Type Circuits
.....	..X..	.....	FIPS 164, 2,400 Bits per Second Four-Wire Duplex and Two-Wire Half-Duplex Modems for Data Communications use on Telephone- Type Circuits
.....	..X..	.....	FIPS 165, 4,800 and 9,600 Bits per Second Four-Wire Duplex and Two-Wire Half-Duplex Modems for Data Communications use on Telephone-Type Circuits
.....	..X..	.....	FIPS 166, 4,800 Bits per Second Two-Wire Duplex Modems for Data Communications use on Telephone- Type Circuits
.....	..X..	.....	FIPS 167, 9,6000 Bits per Second Two-Wire Duplex Modems for Data Communications use on Telephone-Type Circuits

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FIPS 168, 12,000 and 14,400 Bits per Second Four-Wire Duplex Modems for Data Communications use on Telephone-Type Circuits
.....	..X..	.....	FIPS 169, Error Correction in Modems Employing Asynchronous-To-Synchronous Conversion
.....	..X..	.....	FIPS 170, Data Compression in Modems Employing CCITT Recommendation V.42 Error Correction
.....	..X..	.....	FIPS 171, Key Management Using ANSI X9.17
.....	..X..	.....	FIPS 172, VHSIC Hardware Description Language (VHDL)
.....	..X..	.....	FIPS 174, Federal Building Telecommunications Wiring Standard
.....	..X..	.....	FIPS 175, Federal Building Standard for Telecommunications Pathways and Spaces
.....	..X..	.....	FIPS 176, Residential and Light Commercial Telecommunications Wiring Standard
.....	..X..	.....	FIPS 177, Initial Graphical Exchange Standard (IGES)
.....	..X..	.....	FIPS 178, Video Teleconferencing Services at 56 to 1,920 KBPS
.....	..X..	.....	FIPS 179, Government Network Management Profile (GNMP)
FEDERAL TELECOMMUNICATIONS STANDARDS (FED-STD)			
.....	..X..	.....	FED-STD 1002A, Telecommunications: Time and Frequency Reference Information in Telecommunication Systems
.....	..X..	.....	FED-STD 1016, Telecommunications: Analog to Digital Conversion of Radio Voice by 4,800 B.t/Second Code Excited Linear Prediction (CELP)

J.2 (Continued)

Standard Applies	Standard Does Not Apply	Standard Applies, But Waived	Standards Titles
.....	..X..	.....	FED-STD 1023, Telecommunications: Interoperability Requirements for Encrypted Digitized Voice Utilized with 25 KHz Channel FM Radios Operating Above 30 MHZ
.....	..X..	.....	FED-STD 1035A, Telecommunications: Coding Modulations and Transmission Requirements for Single Channel Medium and High Frequency Radio Telegraph Systems Used In Government Maritime Mobile Telecommunications
.....	..X..	.....	FED-STD 1037B, Telecommunications: Glossary of Telecommunications Terms

BILLING INSTRUCTIONS FOR
COST-REIMBURSEMENT TYPE CONTRACTS

General: The contractor shall prepare vouchers/invoices for reimbursement of costs in the manner and format described herein. A sample voucher/invoice is provided for your reference. **FAILURE TO SUBMIT VOUCHERS/INVOICES IN ACCORDANCE WITH THESE INSTRUCTIONS WILL RESULT IN REJECTION OF THE VOUCHER/INVOICE AS IMPROPER.**

Number of Copies: *consisting of a copy of the accounts ledgers.* An original and three copies, including supporting documentation shall be submitted. A copy of all supporting documents must be attached to each copy of your voucher/invoice. Failure to submit all the required copies will result in rejection of the voucher/invoice as improper.

Designated Agency Billing Office: Vouchers/invoices shall be submitted to the following address:

U.S. Nuclear Regulatory Commission
Division of Contracts and Property Management
Contract Administration Branch, P-902
Washington, DC 20555

HAND DELIVERY OF VOUCHERS/INVOICES IS DISCOURAGED AND WILL NOT EXPEDITE PROCESSING BY NRC. However, should you choose to deliver vouchers/invoices by hand, including delivery by any express mail services or special delivery services which use a courier or other person to deliver the voucher/invoice in person to the NRC, such vouchers/invoices must be addressed to the above Designated Agency Billing Office and will only be accepted at the following locations:

U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Room
Rockville, MD 20852

HAND-CARRIED SUBMISSIONS WILL NOT BE ACCEPTED AT OTHER THAN THE ABOVE ADDRESS.

Note that the official receipt date for hand-delivered vouchers/invoices will be the date it is received by the official agency billing office in the Division of Contracts and Property Management.

Agency Payment Office: Payment will continue to be made by the office designated in the contract in Block 12 of SF 26 of Block 25 of SF 33, whichever is applicable.

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

Form: Claims should be submitted in the format depicted on the attached sample form entitled "Voucher for Purchase and Services Other than Personal" (see Enclosure 1). The sample form is provided for guidance only. The form is not required for submission of a voucher/invoice. Alternate formats are permissible provided all requirements of the billing instructions are addressed. Additional copies of the form are available from the Contracting Officer. The instructions form preparation and itemization of the voucher/invoice are included with the sample form (See Enclosure 2).

Task Ordering Contracts: If the contractor bills for more than one task order under a voucher/invoice, detailed cost information for each individual task order shall be submitted, together with a cumulative summary of all charges billed on the voucher/invoice. This includes all applicable cost elements discussed in paragraphs (a) through (p) of the attached instructions, together with appropriate supporting information (see Enclosure 3 for a sample of support information).

Fee Recovery Billings: Pursuant to the provisions of 10 CFR Part 170 and 171 on license fees, the NRC must recover the cost of work performed. Accordingly, the contractor must provide the total amount of funds billed during the period, fiscal year to date and the cumulative total for each task or task assignment by facility or report. The fee recovery billing reports shall be on a separate page, and shall be in the format provided in Enclosure 4. The billing period for fee recovery costs should be from the first day of each calendar month to the last day of the same month. Each separate fee billing report must be attached to the monthly invoice and cover the same period as the invoice.

Each report will contain a docket number or other unique identifier. The NRC will provide a unique identifier for all work performed. Costs should be reported as whole number to the nearest cent. For work that involves more than one facility at the same site, each facility should be listed separately and the costs should be split appropriately between the facilities. Common costs, as defined below, shall be identified as a separate line item in the fee recovery billing report each month.

Common costs are those costs that are not licensee unique and associated with the performance of an overall program that benefit all similar licensees covered under that program or that are required to satisfactorily carryout the program. Common costs include costs associated with the following: preparatory or startup efforts to interpret and reach agreement on methodology, approach, acceptance criteria, regulatory position, or technical reporting requirements; efforts associated with the "lead plant" concept that might be involved during the first one or two plant reviews; meetings and

discussions involving the above efforts to provide orientation, background knowledge or guidance during the course of a program; any technical effort applied to a docket or other unique identifier; and project management. Common costs must be reporting monthly for each docket or unique identifier. Common costs must be computed based on the proportion of direct costs incurred against each docket or unique identifier for the billing period.

Billing of Cost 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. To be considered a proper expiration voucher/invoice, the contractor shall clearly mark it "EXPIRATION VOUCHER" or "EXPIRATION INVOICE".

Final vouchers/invoices shall be marked "FINAL VOUCHER" or "FINAL INVOICE".

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 vouchers/invoices paid under the contract may not exceed to the total U.S. dollars authorized in the contract.

Supersession: These instructions supersede any previous billing instructions.

INSTRUCTIONS FOR PREPARING
COST INFORMATION FOR NRC CONTRACTS

Preparation and Itemization of the Voucher/Invoice: In order to constitute a proper invoice, the contractor shall furnish all the information set forth below. These notes are keyed to the entries on the sample voucher/invoice.

Official Agency Billing Office: Address the original and 3 copies of the voucher/invoice, together with supporting documentation attached to each copy to: U.S. Nuclear Regulatory Commission, Division of Contracts and Property Management, P-902, Washington, DC 20555.

Vouchers/invoices delivered by hand, including delivery by express mail or special delivery services which use a courier or other person to deliver the voucher/invoice in person to the NRC, should be addressed in accordance with the foregoing and delivered to: U. S. Nuclear Regulatory Commission, One White Flint North, 1155 Rockville Pike, Rockville, Maryland 20852. Hand-delivered vouchers/invoices will not be accepted at other than the above address. Note, however, that the official receipt date for hand-delivered vouchers/invoices will be the date it is received by the official agency billing office in the Division of Contracts and Property Management.

Payee's name and address. Show the name of the contractor as it appears in the contract and its correct address. When an approved assignment has been made by the contractor, or a different payee or addressee has been designated, insert the name and address of the payee. Indicate the name and telephone number of the individual responsible for answering any questions that the NRC may have regarding the invoice.

- (a) Contract Number. Insert the NRC contract number
Task Order Number, if applicable. Insert the task order number.
- (b) Title of Project. List the full title of the project being performed under the contract.
- (c) Sequential voucher/invoice number. The appropriate sequential number of the voucher/invoice, beginning with 001 should be designated. Contractors may also include individual internal accounting number, if desired, in addition to the 3-digit sequential number.
- (d) Project Officer's name as designated in the contract.

- (e) Date of voucher/invoice. Insert the date the voucher/invoice is prepared.
- (f) Contract Amount. Insert the total estimated cost of the contract, exclusive of fixed-fee. Include this information as it applies to individual task orders as well.
- (g) Fixed-Fee. Insert total fixed-fee. Include this information as it applies to individual task orders as well.
- (h) Billing Period. Insert the beginning and ending dates (day, month, year) of the period during which costs were incurred and for which reimbursement is claimed.
- (i) Direct Costs - Insert the major cost elements; *as agreed using UMCP's Form 1034 format*

(1) Direct Labor. This consists of salaries and wages paid (or accrued) for direct performance of the contract itemized as follows:

Labor Category	Labor Hrs. Negotiated	Hrs. Billed	Rate	Total	Cumulative Hrs. Billed
----------------	-----------------------	-------------	------	-------	------------------------

- (2) Fringe Benefits. This represents fringe benefits applicable to direct labor and billed as a direct cost. Where a rate is used indicate the rate. Fringe benefits included in direct labor or in other indirect cost pools should not be identified here.
- (3) Direct Equipment. For education institutions, list each item costing \$500 or more and having a life expectancy of more than one year. For contractors other than educational institutions, list each item costing \$200 or more and having a life expectancy of more than one year. List only those items of equipment for which reimbursement is requested. A reference shall be made to the following (as applicable): (a) the item number for the specific piece of equipment listed in the property schedule of the contract; (b) the Contracting Officer's approval letter if the equipment is not covered by the property schedule; or (c) be preceded by an asterisk (*) if the equipment is below the approval level. Further itemization of vouchers/invoices shall only be required for items having specific limitations set forth in the contract.
- (4) Materials, Supplies, or Other Expendable Items. These are consumable materials, supplies, and equipment other than that described in (3) above.
- (5) Premium Pay. This remuneration in excess of the basic hourly rate. (Requires written approval of the Contracting Officer.)

- (6) Consultant's 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.

All costs associated with each trip must be shown in the following format:

Date		Traveler	Destination		Purpose	Cost
From	To		From	To		\$

- (8) Subcontracts. Include separate detailed breakdown of all costs paid to approved subcontractors during the billing period.
- (9) Other. List all other direct costs by cost element and dollar amount separately.
- (j) Indirect Costs - Overhead. Cite the formula (rate and base) in effect during the time the cost was incurred and for which reimbursement is claimed.
- (k) Fixed Fee. 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. The contractor may bill for fixed fee only up to 85% of total fee.
- (l) Amount Billed for Current Period. Insert the amount billed for the major cost elements, adjustments, and total amount for the period.
- (m) Cumulative Amount from Inception to Date of Current Billing. Insert the cumulative amounts billed for the major cost elements and adjusted amounts claimed during this contract.
- (n) Total Amounts Claimed. Insert the total amounts claimed for the current cumulative periods.
- (o) Adjustments. This includes cumulative amounts billed that have been suspended or disallowed.
- (p) Grand Totals.

(1) Direct Labor - \$2400

Labor Category	Labor Hour Negotiated	Hours Billed	Rate	Total	Cumulative Hours Billed
Senior Engineer 1	2400	100	\$14	\$1400	975
Engineer	1500	50	\$10	\$500	465
Computer Analyst	700	100	\$5	\$500	320
				\$2400	

(3) Direct Equipment

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

(4) Materials, Supplies & Other Expendable Items

10 Radon Tubes @ \$110 = \$1100
6 Pairs Electrostatic Gloves @ \$150 = \$900
\$2000

(5) Premium Pay

Walter Murphy - 10 hours @ \$10 Per Hour = \$100
(This was approved by NRC in letter dated 3/6/89)

(6) Consultants' Fee

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

(7) Travel

Date	Traveler	Destination	Purpose	Costs
From	To	From	To	
3/1/89	3/6/89	William King	Chicago Wash	Mtg. w/PO \$200

UMCER ledgers to be provided as documentation. Other documentation available for auditing purposes.

MONTHLY CONTRACTUAL COST SUMMARY REPORT FOR FEE BILLING

FIN: _____

Facility Name or Report Title: _____

TAC or Inspection Report Number: _____
(or other unique identifier)

Docket Number (if applicable): _____

Cost Categories	Period Amt.	Period Cost Incurred	Fiscal Year To Date Costs	Total Cumulative Costs
Labor				
Materials				
Subcontractor/ Consultant				
Travel				
Other (specify)				
Common Costs				
Total				

Remarks:

Unclassified Contractor and Grantee Publications in the NUREG Series

Directive

*(Formerly
MC 3202)* **3.8**

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U. S. Nuclear Regulatory Commission

Volume: 3 Information Management

Part 1: Publications, Mail, and Information
Disclosure

ADM

Unclassified Contractor and Grantee Publications in the NUREG Series Directive 3.8

Policy

(3.8-01)

This directive and handbook govern the publishing of (1) unclassified NRC contractor, consultant or grantee formal reports, books, and international agreement reports, in the NUREG/CR, NUREG/GR, and NUREG/IA series; (2) reports and books by contractors of the U.S. Department of Energy (DOE); and (3) publications prepared for NRC under memoranda of understanding and interagency agreements.

Objectives

(3.8-02)

- To ensure the production and dissemination of information and publications as required by the Energy Reorganization Act of 1974 and the Freedom of Information Act. (a)
- To ensure the technical and management reviews of formal reports and books prior to publication. (b)
- To ensure that national security, patent rights, copyrights, proprietary rights, and rights in other sensitive unclassified information, including those specified in interagency and international agreements and memoranda of understanding, are not compromised by the release or publication of information by NRC. (c)
- To ensure that all unclassified NRC contractor or grantee publications in the NUREG series carry the registered Government identification NUREG/CR-0000, NUREG/GR-0000, or NUREG/IA-0000, with the exception of some publications

Objectives

(3.8-02) (continued)

- prepared by grantees, and indicate the availability of source material used in these publications. (d)
- To ensure that NRC-sponsored book manuscripts receive proper peer review from experts within and outside NRC. (e)
- To provide uniform procedures for publishing formal reports and books prepared by NRC contractors or grantees. (f)

Organizational Responsibilities and Delegations of Authority

(3.8-03)

Executive Director for Operations (EDO) (031)

Delegates to the Deputy Executive Directors for Operation decisionmaking authority for the resolution of differences between NRC and contractors about the contents of publications, about granting contractors permission to publish NRC-sponsored information in the open literature, and about permitting contractors to issue press or other media releases concerning NRC-sponsored information.

Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research (032)

As delegated from the EDO, makes final decisions in the following areas for the Office of Nuclear Reactor Regulation, Office of Nuclear Regulatory Research, and Regional Offices:

- When an Office Director refuses to publish an NRC-sponsored document because of irreconcilable differences between themselves and the author(s) about the contents of the document. (a)
- When an Office Director refuses to permit a contractor's principal investigator to publish NRC-sponsored information in the open literature. (b)

**Deputy Executive Director for
Nuclear Reactor Regulation,
Regional Operations and Research**
(032) (continued)

- When an Office Director refuses to permit a contractor to issue a press or other media release about an NRC-sponsored publication. (c)

**Deputy Executive Director for
Nuclear Materials Safety, Safeguards,
and Operations Support**
(033)

As delegated from the EDO, makes final decisions in the following areas for the offices reporting to this official:

- When an Office Director refuses to publish an NRC-sponsored document because of irreconcilable differences between themselves and the author(s) about the contents of the document. (a)
- When an Office Director refuses to permit a contractor's principal investigator to publish NRC-sponsored information in the open literature. (b)
- When an Office Director refuses to permit a contractor to issue a press or other media release about an NRC-sponsored publication. (c)

Directors of Offices
(034)

- Ensure that publications will be reviewed in draft prior to final printing and distribution for acceptability by determining that they are consistent with agency policy, management decisions, and that they raise no significant legal issues. (a)
- Ensure that statements of work include statements requiring contractor* compliance with this directive and handbook and Government Printing and Binding Regulations. (b)

*"Contract" in this context encompasses the "Standard Order for DOE Work" (NRC Form 173), interagency and international agreements, and grants.

Unclassified Contractor and Grantee
Publications in the NUREG Series
Part 1 - Publications, Mail, and Information Disclosure
Directive 3.8

Directors of Offices
(034) (continued)

- Sign, or delegate signature authority for, the NRC Form 426A, "Release to Publish Unclassified NRC Contractor, Consultant, or Conference Proceedings Reports," and for memoranda requesting reprints of contractor publications. (c)

Director, Office of Administration (ADM)
(035)

As delegated from the Deputy Executive Director for Nuclear Materials Safety, Safeguards, and Operations Support, administers NRC's programs and policies for publishing unclassified contractor and grantee reports and books in the NUREG series.

Director, Division of Freedom of Information and Publications Services, ADM
(036)

- Develops and administers, as delegated from the Director, ADM, NRC's program and policies for publishing unclassified contractor, consultant, and grantee formal reports, books, and international agreement reports in the NUREG/CR, NUREG/GR, and NUREG/IA series. (a)
- Applies the policy, procedures, standards, and guides for the documentation, formatting, composition, printing, and dissemination of NRC-sponsored publications in the NUREG series consistent with the mission of the agency and in accordance with the requirements of the Government Printing and Binding Regulations issued by the Joint Committee on Printing, U.S. Congress. (b)
- Develops and administers the central agency publication numbering system for identifying, producing, and retrieving unclassified NRC-sponsored publications in the NUREG series. (c)

Director, Division of Contracts and Property Management, ADM
(037)

Ensures that those requests for proposals, invitations for bids, and grant proposals, and the ensuring contracts and grants that require

**Director, Division of Contracts and
Property Management, ADM**
(037) (continued)

publications as deliverables, include provisions requiring contractor compliance with this directive and handbook and Government Printing and Binding Regulations.

Applicability

(3.8-04)

Employees

(041)

This directive and handbook apply to and must be followed by all NRC employees.

Other Publications

(042)

The provisions of this directive and handbook do not apply to NRC staff publications in the NUREG series, NRC docket material, or documents created by NRC boards, panels, advisory committees, and offices that report to the Commission.

Handbook

(3.8-05)

Detailed guidelines for the preparation of publications are contained in Handbook 3.8.

References

(3.8-06)

1. Executive Order 12291—Federal Regulation, February 17, 1981.
2. Title 17, U.S. Code, Copyrights.
3. Government Printing and Binding Regulations, S. Pub. 101-9, February 1990.

Unclassified Contractor and Grantee
Publications in the NUREG Series
Part 1 - Publications, Mail, and Information Disclosure
Directive 3.8

References

(3.8-06) (continued)

4. DOE-NRC Memorandum of Understanding, February 24, 1978.
5. Title 44, U.S. Code, "Public Printing and Documents," Chapter 3, Government Printing Office.
6. U.S. Government Printing Office *Style Manual*, 1984.
7. Energy Reorganization Act of 1974 (42 U.S.C. 5801, et seq.).
8. The Freedom of Information Act (5 U.S.C. 522).
9. Public Law 95-224, The Federal Grant and Cooperative Agreement Act, February 3, 1978.
10. Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations, OMB Circular A-110, July 1976.
11. Cost Principles for State and Local Governments, OMB Circular A-87, January 1981.
12. NUREG-0650, Revision 1, "Publishing Documents in the NUREG Series," November 1990.

Unclassified Contractor and Grantee Publications in the NUREG Series

Handbook

(Formerly
Appendix 3202) **3.8**

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Introduction

This handbook specifies the procedures necessary for Nuclear Regulatory Commission (NRC) contractors and grantees to follow when preparing the following kinds of publications for the NRC.

- Final NUREG Reports
- International Agreement Reports
- Books
- Grant Publications

The handbook is divided into five major parts and includes a glossary and exhibits. Part I provides general information for staff consideration in the preparation of statements of work. Parts II, III, IV, and V provide publishing guidelines specific to, respectively, contractor reports, international agreement reports, books, and grantee publications.

Contractor means a private contractor, consultant, expert, another State or Federal agency working under an interagency agreement, or a DOE facility or subcontractor, such as the National Laboratories, working under the DOE/NRC Memorandum of Understanding of February 24, 1978, and any subcontractors of these organizations.

This directive and handbook, as well as a copy of "Publishing Documents in the NUREG Series" (NUREG-0650, Revision 1), must be included or referenced in all contracts, interagency and international agreements, and grants for which the publications listed above are contract deliverables or grant obligations. In addition to the guidelines specific to each type of publication that appear in subsequent parts of this handbook, all statements of work must contain the applicable guidelines outlined in Part I.

Part I

Preparing Publication Requirements for Statements of Work for Contracts

Specifying Publication Requirements (A)

List and describe the type of technical reports required from each project, task or subtask, as applicable. State when, how many, and to whom they should be submitted and the scope of information they should contain. These reports may be unclassified, sensitive unclassified, or classified. For guidelines and requirements covering sensitive unclassified and classified publications, refer to NRC Management Directive 12.2, NRC Information Security Program (formerly MC 2101).

This directive and handbook pertain to publications that will be issued in the NUREG/CR, NUREG/IA, and NUREG/GR series.

Publishing Formal Reports (B)

NUREG series reports will be printed and distributed by NRC from camera-ready copy submitted by the contractor to the Regulatory Publications Branch, MS P-223, U.S. Nuclear Regulatory Commission, Washington, DC 20555. The camera-ready copy is to be prepared in accordance with the provisions of this handbook. Recommended guidelines for the organization and format of formal reports are specified in "Publishing Documents in the NUREG Series" (NUREG-0650, Revision 1).

When the report contains sensitive unclassified or classified information, the contractor must comply with Management Directive 12.2, NRC Information Security Program (formerly MC 2101).

Publishing Formal Reports (B) (continued)

If a draft is desired prior to completion of a final report, specify in the statement of work (SOW) the due date for delivering the final camera-ready copy after receiving NRC or participant comments (if applicable) on the draft. State that all draft material be submitted to the cognizant NRC contact.

When the contractor is to submit draft material for comment prior to the preparation of the final report, state that if there are NRC program or participant comments (if applicable), the contractor will be asked to make changes. If agreement on the changes is reached, the NRC contact will authorize the contractor to prepare the final copy and submit it to the NRC contact, if it is a letter report or input to a Safety Evaluation Report or an Environmental Statement, or to the Director, Division of Freedom of Information and Publications Services (DFIPS), if it is a camera-ready copy for printing and distribution. This is to be done to ensure proper publication, handling, distribution and, among other things, to preclude further changes that might nullify the agreement.

If special caveats were agreed to between the contractor and the NRC contact, the caveats should accompany Form 426A (Exhibit 1) for approval when it is sent to the NRC contact. A copy of special caveats should also accompany the camera-ready copy sent to DFIPS.

If agreement on changes to a formal technical report to be issued in the NUREG/CR series is not reached, the NRC contact may request the contractor to prepare the camera-ready copy with, in addition to the standard disclaimer required on all contractor formal reports (see Section II.F. below), any caveats deemed necessary to cover NRC objections. Such caveats may range from "The views expressed in this report are not necessarily those of the U.S. Nuclear Regulatory Commission" to the addition of a preface setting forth the NRC opinion or footnotes at appropriate locations within the text.

If NRC objections cannot be covered in this manner, NRC can refuse to publish the report. In the case of DOE/National Laboratory reports, the DOE Operations Office Manager responsible for that laboratory should be informed by the NRC Office Director or Regional Administrator of the decision and the reasons therefor, with a copy to the Laboratory Director. In the case of another Federal agency, a State, or a private contractor, the person who entered into the contract should similarly be informed by the NRC contracting officer. The contractor is then free to publish the report without NRC

Publishing Formal Reports (B) (continued)

being identified as the funding sponsor of the report and without the NRC disclaimer. Office Director or designee decisions may be appealed to the appropriate Deputy Executive Director for Operations.

Publishing Unclassified Information in Open Literature and Presenting Papers (C)

Specify whether the contractor's principal investigator is permitted to publish in the open literature instead of submitting a final report and/or to present papers at public or association meetings during the course of the work. If that arrangement is authorized, add the following statement to the Statement of Work (SOW):

The principal investigator(s) may publish the results of this work in the open literature instead of submitting a final report and/or present papers at public or association meetings at interim stages of the work.

If the NRC contact wants to review the paper or journal article prior to presentation or submission for publication, state so in the SOW, as follows:

The principal investigator(s) may publish the results of this work in the open literature instead of submitting a final report and/or present papers at public or association meetings at interim stages of the work, if the article or paper has been reviewed by the NRC contact in draft form and agreement has been reached on the content.

If the agreement is not reached, NRC may also require that the paper include in addition to the standard statement "Work supported by the U.S. Nuclear Regulatory Commission," any caveats deemed necessary to cover NRC objections. If NRC objections cannot be covered in this manner, NRC may refuse to authorize publication in the open literature and/or presentation of papers.

In the latter case, NRC will inform the contractor of the decision, as stated above. The contractor is then free to publish without NRC being identified as the funding sponsor of the information. Office Director

Publishing Unclassified Information in Open Literature and Presenting Papers (C) (continued)

or designee decisions may be appealed to the appropriate NRC Deputy Executive Director for Operations.

If the contractor proposes to publish in the **open literature** or present the information at meetings *in addition* to submitting the required technical reports, approval of the proposed article or presentation should be obtained from the NRC. The NRC shall take one of the following actions: approve the material as submitted, approve it subject to NRC-suggested revisions, or disapprove it. In any event, the NRC may disapprove or delay presentation of papers on information that is subject to Commission approval that has not been ruled upon or which has been disapproved.

If the contractor requests permission to publish in the open literature even though the contract does not explicitly provide for this type of publication, the contract can be modified to provide for such presentations.

When the contractor submits journal articles for publication, each must be accompanied by the following statement:

The submitted manuscript has been authored by a contractor of the U.S. Government under Contract* No. _____. Accordingly, the U.S. Government has a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

All published papers and articles must include the following disclaimer:

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 infringe privately owned rights. The views expressed in this paper are not necessarily those of the U.S. Nuclear Regulatory Commission.

*For DOE work orders the appropriate FIN number is applicable.

Publishing Unclassified Information in Open Literature and Presenting Papers (C) (continued)

Should the contractor be requested by the journal or other publisher to transfer the copyright, the contract author will respond to the journal or other publisher in writing in accord with the sample letter shown as follows:

Dear (Copyright Holder's Name):

We recently received a document for signature assigning copyright and republication rights in the submitted article (title) to (name of publication). This letter is offered in lieu of the document as a means of completing the transfer of ownership. Accordingly, we hereby expressly transfer and assign our rights of ownership in the above-cited work to (name of publisher).

You are advised, however, that the above assignment and any publication or republication of the above-cited work is subject to the following Government rights:

The submitted manuscript has been authored by a contractor of the U.S. Government under Contract No. _____. Accordingly, the U.S. Government has a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

Sincerely,

If NRC approves open literature publication and page charges and travel costs are required for the presentation of papers, see Management Directive 3.10, NRC Contractor Unclassified Papers, Journal Articles, and-Press or Other Media Releases on Regulatory and Technical Subjects (formerly MC 3206).

Reports Containing Sensitive Unclassified and Classified Information (D)

Examples of the proper marking of reports designated Official Use Only, Limited Official Use, Proprietary Information, Safeguards

Reports Containing Sensitive Unclassified and Classified Information (D) (continued)

Information, and Classified (Confidential, Secret, and Top Secret) are provided in Management Directive 12.2, NRC Information Security Program (formerly MC 2101).

Conference and Workshop Proceedings (E)

If NRC approves publication of compilations of papers presented at NRC-sponsored or cosponsored meetings, conferences, and symposia, see Management Directive 3.11, Conferences and Conference Proceedings (formerly MC 3207).

Distribution of Reports to Contractors (F)

Up to 50 copies of printed unclassified NUREG/CR, NUREG/GR, and NUREG/IA reports will be bulk shipped to the contractor by NRC. (Joint Committee on Printing's *Government Printing and Binding Regulations* permit contractors to receive up to 50 copies of reports they have produced for NRC free of charge.) If fewer than 50 copies are needed, indicate the desired quantity on NRC Form 426A (Exhibit 1). Contractors requesting single copies for specific individuals in organizations other than the contractor's organization who are not included in the distribution requested by the NRC contact may address such request(s), with written justification, to the NRC contact. If the additional distribution is approved by the NRC contact, the contractor shall send address labels with the camera-ready copy to the Regulatory Publications Branch, DFIPS, USNRC, Washington, DC 20555, and that distribution will be made along with the standard distribution.

Coordinating Contractor Press or Other Media Releases of Information (G)

A contractor may request permission to issue a press or other media release on the work being done. That request must be made to the NRC Office Director or designee, who will consult with the Public Affairs staff. The contractor must not issue a press release on nonroutine information without this prior approval. This approval may be obtained by a telephone call to the Office Director or designee to expedite the request. The contractor may appeal decisions not to authorize the release of information or delays in handling the request to the appropriate Deputy Executive Director for Operations.

Part II

Draft and Final NUREG Reports

Identification Information (A)

NUREG Number (1)

Each contractor report published by NRC must be identified by a unique alphanumeric designation controlled and maintained by the Division of Freedom of Information and Publications Services (DFIPS). To obtain an NRC report number, call the Regulatory Publications Branch, DFIPS, at FTS 49-27001 or (301)49-27001.

The NRC identification numbers will have one of the following forms:

- NUREG/CR-0000
- NUREG/GR-0000
- NUREG/IA-0000

where CR indicates contractor report, GR indicates grant report, and IA indicates international agreement report. The contractor report number, if any, will be placed below the NUREG number on the title page and cover.

When a report consists of more than one volume or binding or is issued in more than one edition, an appropriate volume, number, supplement, part, addendum, or revision designation must appear immediately below the NRC report number and the contractor's report number, if any.

Author Names (2)

Authors' names routinely appear on the report cover and title page, unless doing so is impractical, as for an annual report having many contributors. Editors or compilers with subject-area expertise may also be identified as such on the cover and title page. Author

Identification Information (A) (continued)

Author Names (2) (continued)

affiliations need not be listed unless the affiliation differs from the organization creating the report.

Organizational Identification (3)

The Regulatory Publications Branch, DFIPS, prepares the covers and title pages for all reports and will list information about the organization that created the report as it is provided.

Previous Reports in Series (4)

If the report being prepared is one in an ongoing series, list all previous reports in the series. Include report numbers and issuance dates. Place this list on the back of the title page.

Report Dates (5)

The report dates are shown on the title page. These dates include the month and year the report is completed, and the month and year it is published.

Report Organization and Components (B)

The organization and components of contractor reports vary somewhat, depending on their purpose and scope. Recommended format and organizational guidelines appear in "Publishing Documents in the NUREG Series" (NUREG-0650, Revision 1).

Each draft and final report prepared for NRC must include an abstract of 200 words or less that appears on a separate page preceding the table of contents. The abstract must also appear on the Bibliographic Data Sheet, NRC Form 335 (Exhibit 2A). The back of Form 335 contains instructions for completing the form (Exhibit 2B). Guidelines on the special writing requirements for preparing abstracts appears in Section 5.5 of NUREG-0650, Revision 1.

Pre-Publication Reviews (C)

Patent Review (1)

Patent implications must 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 National Laboratories), that Government agency should be requested by the contractor to perform the patent review. The result of the review must be reported on NRC Form 426A under item 8 (Exhibit 1).

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 must be consulted, and the responsible NRC technical contact shall consider the patent implications. If there is no need for patent review because of the certainty that the report contains no description of novel technical developments that may be of an inventive nature, mark "N/A" on the NRC Form 426A 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 Assistant General Counsel for Administration, Office of the General Counsel, on FTS 49-21553 or (301)49-21553.

Security Review (2)

Should a report of sensitive unclassified or classified work be required, the NRC contact must work with the NRC Division of Security to establish the appropriate procedures and inform the contractor of these procedures through the contracting officer. The standards for marking and handling these reports are given in Management Directive 12.2, NRC Information Security Program (formerly MC 2101).

Copyright Review (3)

Copyrighted material must not appear in NRC-sponsored publications without written permission from the copyright holder. See NUREG-0650, Revision 1, Section 3.4, for information about obtaining copyright permission.

Color Printing (D)

Regulations issued by the Joint Committee on Printing (JCP) restrict the use of color in printed materials to those uses that are of demonstrable value. JCP regulations specify that "Demonstrably valuable multicolor printing..." includes the following categories:

- Maps and technical diagrams where additional color is necessary for clarity. (a)
- Object identification (medical specimens, diseases, plants, flags, uniforms, etc.). (b)
- Safety programs, fire prevention, savings bonds programs, and competitive areas of personnel recruiting. (c)
- Areas wherein clearly identifiable savings in costs can be soundly predicated on multicolor use. (d)
- Printing for programs required by law, whose relative success or failure is in direct ratio to the degree of public response, and where that response can be logically attributable to the number of colors planned and the manner in which they are proposed to be used. (e)
- Color for promotional or motivational purposes such as programs concerning public health, safety, consumer benefits; or to encourage utilization of Government facilities such as programs for Social Security, Medicare, and certain areas of need for veterans would come within this category. (f)

The regulations indicate that the following categories do not meet the "demonstrable value" criteria.

- Printed items wherein additional color is used primarily for decorative effect. (a)
- Printed items where additional color is used primarily in lieu of effective layout and design. (b)
- Printed items where additional color is used excessively, i.e., four colors when two or three will fulfill the need; three colors when two are adequate; two colors when one is adequate. (c)
- Printed items wherein the inclusion of multicolor does not reflect careful, competent advanced planning which recognizes the contribution that the use of color is expected to make to the ultimate end-purpose. (d)

Color Printing (D) (continued)

If color printing is anticipated when the statement of work or Standard Order for DOE work is being prepared, contact the Regulatory Publications Branch, DFIPS. Prior approval must be granted by the Director of DFIPS. If a requirement for color printing arises as the report is being prepared, submit a written justification for its use to the Director of DFIPS.

Microfiche (E)

NRC contractors and DOE Laboratories submitting microfiche with reports must submit a hard copy of each microfiche, include headers on each microfiche, as shown in Exhibit 3, and conform to the following NRC specifications.*

1. Microfiche must conform to either the 24/98 format for source documents with 14 columns and 7 rows (reduction ratio of 1:24) or the 48/270 format for computer output microfilm with 18 columns and 15 rows (reduction ratio of 1:48).
2. The microfiche sheet must be standard 105 mm x 148 mm.
3. The microfiche must be either a silver-halide master or a black or blue-black diazo placed in acid free envelopes.
4. The microfiche must contain headers as shown in the sample in Exhibit 3. Specifically, the first block of the header must contain the NUREG number (include volume or revision, if applicable), the contractor identification number, and the classification (e.g., unclassified, proprietary). The second block must contain the description of the microfiche and may include the contractor name. The third block must contain the publication date and sheet identification.
5. The header information must be eye readable on a clear background.
6. A foldout page must be microfilmed in sections if the page is too large to be microfilmed in a double frame. No less than 25 mm overlap of original material is acceptable.

*With the exception of items 3, 4, and 8, these specifications are consistent with the American National "Standard for Micrographics-Microfiche, ANSI/AIIM MS5-1985." Copies of this Standard are available from the American National Standards Institute, ATTN: Sales Department, 1430 Broadway, New York, NY 10018 (212)354-3300, or from the Association for Information and Image Management, ATTN: Publications Section, 1100 Wayne Avenue, Silver Spring, MD 20910 (301)598-8202.

Microfiche (E) (continued)

7. The first frame must be blank (on the first sheet only), and the second frame must contain the National Institute of Standards and Technology's Reference Material resolution target in Microcopy Test Charts (NBS SRM 1010A).
8. Jacketed microfiche is unacceptable.

Disclaimer (F)

The following notice will be added by the Regulatory Publications Branch, DFIPS, before the printing process on the inside front cover:

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 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. Other qualifying statements may be added, if needed.

Availability Information (G)

Reference Availability (1)

Reports or other documents referenced in text, reference sections, bibliographies, and appendixes of unclassified regulatory and technical reports in the NUREG series must be available to the public either in the public domain (as in a public library, at the Government Printing Office (GPO), at the National Technical Information Service (NTIS), or at other reference or sales outlets) or in the NRC Public Document Room (PDR). This means that references should not be made to personal communications and interviews, unpublished information and information with restricted distribution (e.g.,

Availability Information (G) (continued)

proprietary, national security, official use only, etc.). If the un retrievable information is important and unrestricted, it can be quoted in the text, in footnotes, or in appendixes. If credit is due to individuals, they can be mentioned in the text or in an acknowledgement section. Availability may be stated collectively for all entries.

Guidelines for developing and presenting reference material are provided in NUREG-0650, Revision 1.

Report Availability (2)

Most final reports are sold by the GPO and NTIS. A statement indicating this availability is added to each report, as appropriate, by the Regulatory Publications Branch, DFIPS, before the report is printed.

Draft reports for which comments are requested are typically announced in the *Federal Register* as being available from the NRC. These reports are not sold at GPO or at NTIS.

Forms (H)

Bibliographic Data Sheet (NRC Form 335) (1)

All published NRC reports must include an NRC Form 335 as the final right-hand page of the manuscript. Instructions for completing the form appear on the back of the form. A completed Form 335 must be submitted to the Regulatory Publications Branch, DFIPS, with the camera-ready copy of the report. Exhibit 2A shows a completed Form 335.

Release to Publish Unclassified NRC Contractor, Consultant, or Conference Proceedings Reports (NRC Form 426A) (2)

The NRC contact must submit a completed NRC Form 426A (Exhibit 1) with the camera-ready copy of the report to the Regulatory Publications Branch, DFIPS. NRC Form 426A must be signed by the staff member designated by the appropriate Office Director.

Printing and Reprinting (I)

The Regulatory Publications Branch, DFIPS, will review the camera-ready report submitted for printing for its adherence to the standards and requirements set forth in this directive and handbook, as well as any relevant guidelines from NUREG-0650, Revision 1. Unsatisfactory manuscripts will be returned to the NRC contractor for appropriate action.

Submit a memorandum requesting a **reprint** to the Director, DFIPS, for approval. Include with the request a written justification and the approval of the Office Director of designee for reprinting. Send address labels for recipients of the reprinted copies, if appropriate.

Distribution (J)

Distribution arrangements will be made by the Regulatory Publications Branch, DFIPS, for all copies of unclassified formal contractor reports in accordance with instructions on NRC Form 426A (Exhibit 1). The Regulatory Publications Branch, DFIPS, will also arrange automatic distribution of these reports to the NRCNUDOCS, the NRC PDR, NTIS, GPO, and the Depository Library Service.

Distribution of sensitive unclassified and classified reports will be made by the NRC sponsoring office on a case-by-case basis.

Part III

International Agreement Reports

Background and Rationale (A)

NRC has cooperative nuclear safety research programs that involve either or both foreign governments and organizations and U.S. industry. These programs include monetary contributions, information exchange, and comments on program plans and results as authorized in 42 U.S.C. 5801. To this end, international and U.S. industry agreements have been signed that provide for transmitting unclassified technical information from foreign participants to NRC. These procedures apply only to NRC-managed work.

The interests of all NRC international nuclear safety research program participants are served best by formal dissemination of information on these programs or codes developed for or in cooperation with NRC.

Identification Information (B)

Cover and Title Page (1)

These will contain a title, subtitle (if appropriate), authors, performing organization, and NRC office sponsoring the project. The cover and title page will be prepared by the Regulatory Publications Branch, DFIPS.

NRC Report Number (2)

Each report must be identified by an NRC-controlled alphanumeric number as the prime number unique to that report. The centralized document control system for unique identification is maintained by DFIPS. Numbers may be obtained by calling Regulatory Publications Branch at FTS 49-24954 or (301)49-24954.

The NRC identification number will have the form:

- NUREG/IA-0000

Identification Information (B) (continued)

NRC Report Number (2) (continued)

where IA indicates "international agreement." The foreign participant's report number, if any, may be inserted below the NUREG number on the cover, if desired.

When a report consists of more than one volume or binding or is issued in more than one edition, an appropriate volume, number, supplement, part, addendum, or revision designation must appear below the report number and the foreign participant's report number, if any.

Previous Reports in Series (3)

If the report being prepared is one in an ongoing series, list all previous reports in the series. Include report numbers and issuance dates. Place this list on the back of the title page.

Report Organization and Components (C)

The organization and components of cooperative agreement reports vary somewhat, depending on their purpose and scope. Each of these reports must include an abstract of 200 words or less that appears on a separate page before the table of contents. The abstract must also appear on the Bibliographic Data Sheet, Form 335 (Exhibit 2A). Instructions for completing the form appear on the back (Exhibit 2B). Guidance on the special writing requirements for preparing abstracts appears in Section 5.5 of NUREG-0650, Revision 1.

Availability Information (D)

References and Bibliographies (1)

Reports or other documents referenced in text, reference sections, bibliographies, and appendixes of unclassified regulatory and technical reports in the NUREG series must be available to the public either in the public domain (as in a public library, at GPO, at NTIS, or at other reference or sales outlets) or in the NRC PDR.

This means that references should not be made to personal communications, interviews, and unpublished information with restricted distribution (e.g., proprietary, national security, official use only). If the unretrievable information is important and unrestricted, it

Availability Information (D) (continued)

References and Bibliographies (1) (continued)

can be quoted in the text, in footnotes, or in appendixes. If the title of a document containing proprietary information is unclassified, it can also be quoted in the text, in a footnote, or in appendixes. If credit is due to individuals, they can be mentioned in the text or in an acknowledgement section. Availability may be stated collectively for all entries. Guidelines for developing and presenting reference material are provided in NUREG-0650, Revision 1.

Report Availability (2)

These reports will be made available for sale by GPO and NTIS.

Disclaimer (E)

The following notice will be added by the Regulatory Publications Branch, DFIPS, on the inside front cover prior to printing.

NOTICE

This report was prepared under an international cooperative agreement for the exchange of technical information. 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 infringe privately owned rights.

Forms (F)

Bibliographic Data Sheet (NRC Form 335) (1)

A typed NRC Form 335 (Exhibit 2A) must be submitted with the camera-ready copy to the Regulatory Publications Branch, DFIPS, as the final right-hand page.

Forms (F) (continued)

Release to Publish Unclassified NRC Contractor, Consultant, or
Conference Proceedings Reports (NRC Form 426A) (2)

An NRC Form 426A (Exhibit 1) must be completed and signed by the
Office Director or designee and submitted with the camera-ready copy
of the report to the Regulatory Publications Branch, DFIPS.

Classified or Sensitive Unclassified Information (G)

The NRC contact should refer to Management Directive 12.2, NRC
Information Security Program (formerly MC 2101), or call the
Division of Security for answers to questions about the status of
classified or sensitive unclassified information in NUREG/IA reports.

Part IV

Books

These guidelines apply to books written by contractors and grantees that are printed by NRC. See Section V below for guidance on publications, including books, by grantees.

Definition (A)

A book refers to a publication intended as a permanent reference or as a textbook or major critical review of a technical or regulatory topic.

Format (B)

Books are usually 6 x 9 inches in trim size, but size will be based on such requirements as ease of use and legibility for graphics, foldouts, and the like. The binding (casebound or paperback) will be chosen according to the need for durability. Additional guidance on manuscript preparations can be found in the U.S. Government Printing Office *Style Manual* and in *The Chicago Manual of Style* (13th edition). Refer also to NRC's "Publishing Documents in the NUREG Series" (NUREG-0650, Revision 1).

The contractor shall submit to the NRC project manager the typeset (photocomposed) manuscript suitable for printing. The NRC contact shall submit the manuscript to the Chief, Regulatory Publications Branch, DFIPS, where it will be reviewed for adherence to the standards set forth and referenced in this directive and handbook. The manuscript will also undergo a printing acceptability review by the Printing, Audiovisual, and Mail Services Branch, DFIPS. Unsatisfactory manuscripts will be reported to the NRC contact for appropriate contractual action by the NRC contracting officer or, in the case of Government agency or interagency agreement work, the publications manager of the performing organization.

Format (B) (continued)

DFIPS will approve design of the cover and title page to contain the appropriate information concerning:

- (1) author names(s)
- (2) organizational identification
- (3) public availability and sales.

All books must include a comprehensive subject index of the book's contents, unless it is made up almost exclusively of graphical or tabular matter. See NUREG-0650, Revision 1, or *The Chicago Manual of Style* (13th ed.) for guidelines on creating an index.

NRC Document Number (C)

Each book must be identified by an NRC-controlled alphanumeric code unique to that book. The alphanumeric code will have the form: NUREG/CR for contractor-prepared books and NUREG/GR for grantee-prepared books.

When a book consists of more than one volume or binding, or is issued in more than one edition, an appropriate volume, number, supplement, part, addendum, or revision designation must appear directly below the document number.

Numbers are assigned by the Regulatory Publications Branch, DFIPS. The number may be obtained in advance of the time that the manuscript is submitted to DFIPS for printing by calling the Regulatory Publications Branch at FTS 49-24954 or (301)49-24954. The DFIPS staff will arrange to meet with the NRC contact for the project and when appropriate, the author(s), to discuss the publication production requirements and schedule for the book.

Availability of Reference Materials (D)

The guidelines for availability of reference material applicable in Section II.G. of this handbook also apply to contractor-prepared and grantee-prepared books published by NRC.

Reviews (E)

Peer (1)

NRC published books must undergo peer review from experts within and outside NRC. Peer review refers to a critical evaluation of the technical contents of a publication. These reviews may be conducted anonymously by reviewers from the author's own or a related field who are totally independent of the work leading to the manuscript.

Reviewers should be chosen by the NRC Office sponsoring the book from the potential audience for the publication and should provide an independent judgment about whether the publication successfully accomplishes the author's aims. Peer reviewers should be chosen for their expertise in the subject matter of the book. They may come from academia, the National Laboratories, other Federal agencies, or from other research institutes or consulting firms. They may be identified from the membership rolls of professional societies, ANSI subcommittees, and the like. Do not choose more than one reviewer from the same organization.

When assessing potential peer reviewers, screen for demonstrated competence and achievement in a specific discipline or research specialty. Assess competence based on the quality of research accomplished, publications in refereed journals, and other significant technical activities, achievements, and honors. Consider the judgement, perspective, and objectivity of reviewers. Consider also the personal integrity of those selected to ensure the confidentiality of information reviewed. Finally, avoid real or perceived conflicts of interest. Do not choose reviewers who are licensees or consultants to licensees nor reviewers from intervenor groups. Likewise, do not choose reviewers who may profit financially from influencing the information reviewed.

The services of reviewers from outside the agency may be acquired through consultant services contracts. The decision as to whether to reimburse peer reviewers should be made on a case-by-case basis, however. Recognize that reimbursing peer reviewers may give the appearance of a conflict of interest, suggesting to some that because NRC is paying for this service, the agency will seek only reviewers thought to be favorably disposed to the material reviewed. One way to offset this impression is to seek recommendations for peer reviewers from independent organizations, like the American Physics Society,

Reviews (E) (continued)

Peer (1) (continued)

the American Nuclear Society, the American Society of Mechanical Engineers, or appropriate universities. Reimbursement could then be made to the organization.

Copyright (2)

Copyrighted material must not be reproduced in NRC books without the written permission of the copyright holder. See NUREG-0650, Revision 1, Section 3.4, for information about obtaining copyright permission.

Security (3)

Based on knowledge of the information sources used, the author is responsible for ensuring that the manuscript does not contain classified or other access-controlled information. If there is uncertainty with respect to the security classification of a reference document or manuscript, an authorized classifier or the NRC Division of Security should be contacted for assistance. See also Management Directive 12.2, NRC Information Security Program (formerly MC 2101).

Patent (4)

The patent-review guidelines for draft and final formal reports specified in Section II.C of this handbook also apply to contractor- and grantee-prepared books.

Publishing Authorization Form (F)

A completed NRC Form 426A (Exhibit 1), signed by the Office Director or designees or by a DOE National Laboratory-authorized official if the publication is done for the Office of Nuclear Regulatory Research, if applicable, must be submitted to DFIPS with the book manuscript.

Disclaimers (G)

The following standard U.S. Government notice will be added prior to printing:

Disclaimers (G) (continued)

This document 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 document, or represents that its use by such third party would not infringe privately owned rights.

The following additional statement may be printed below the standard disclaimer, if authorized by the NRC Office Director or designee.

This document was prepared under U.S. Nuclear Regulatory Commission (NRC) Contract No. _____. The opinions, findings, conclusions, and recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the NRC.

Other qualifying statements may be added, if needed.

Printing (H)

Book manuscripts must be submitted by DFIPS to GPO for printing. The printing cycle requires from 6 to 8 weeks.

Distribution and Sales (I)

Distribution will be arranged by the DFIPS staff in accordance with distribution guidance provided by the NRC project manager on NRC Form 426A (Exhibit 1).

Free distribution should be limited to those who contributed materially to the book or to those for whom the book's subject matter bears directly on their work at or for NRC.

DFIPS will arrange to make the book available for sale through GPO. DFIPS will also arrange to have it made available at the NRC PDR and the GPO Depository Library Program.

Part V

Grant Publications

Background and Rationale (A)

The Nuclear Regulatory Commission funds grants for educational and nonprofit institutions, State and local Governments, and professional societies for the expansion, exchange, and transfer of knowledge and ideas pursuant to the Atomic Energy Act of 1954, as amended, Sections 31.a. and 141.b.

Publication of Results (B)

The grant will specify the publication requirements of the award. Grant results may be published by NRC, by the grantee, or in the open literature.

Publication by NRC (1)

This publication option must be governed by the guidelines specified in Part I of this handbook for reports or in Part III of this handbook for books, as appropriate. See Identification of Grant Publications in the paragraphs under V.C.

Publication by a Grantee (2)

When the grant specifies that the grantee is to publish the results, the grantee must grant to the Government a royalty-free, nonexclusive, irrevocable license to reproduce, translate, publish, use, and dispose of all copyrightable material first produced or composed in the grantee's performance under the grant.

Open Literature Publication by Grantee (3)

When the grantee submits journal articles for publication, each must be accompanied by the following statement:

Publication of Results (B) (continued)

Open Literature Publication by Grantee (3) (continued)

The submitted manuscript has been authored by a grantee of the U.S. Government under Grant No. _____. Accordingly, the U.S. Government has a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

All open literature publications prepared under this grant must contain the following statement:

This paper was prepared with the support of the U.S. Nuclear Regulatory Commission (NRC) under Grant No. _____. The opinions, findings, conclusions, and recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the NRC.

Should the grantee be requested by the journal or other publisher to transfer the copyright, the grantee author will respond to the journal or other publisher in writing in accord with the sample letter shown as follows:

Dear (Publisher's Name):

We recently received a document for signature assigning copyright and republication rights in the submitted article (title) to (name of publication). This letter is offered in lieu of the document as a means of completing the transfer of ownership. Accordingly, we hereby expressly transfer and assign our rights of ownership in the above-cited work to (name of publisher).

You are advised, however, that the above assignment and any publication or republication of the above-cited work is subject to the following Government rights:

The submitted manuscript has been authored by a grantee of the U.S. Government under grant No. _____. Accordingly, the U.S. Government has a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

Sincerely,

Publication of Results (B) (continued)

Reprints of Open Literature Publications (4)

When any article resulting from work under the grant is published in a scientific, technical, or professional journal, two reprints of the publication must be sent to the cognizant NRC Program Officer, clearly labeled with the grant number and other appropriate identifying information.

Identification of Grant Publications (C)

Each report or book published by NRC that results from a grant must be identified by an alphanumeric number, as follows:

- NUREG/GR-0000

When the publication consists of more than one volume, number, supplement, part, or binding, or is issued in more than one edition, an appropriate volume, supplement, part, or revision designation must appear below the NUREG/GR number.

Numbers may be obtained from the Regulatory Publications Branch at FTS 49-24954 or (301)49-24954.

Pre-Publication Reviews (D)

The U.S. Congress characterizes the relationship between a Federal agency and a grant recipient as one in which "the recipient can expect to run the project without agency collaboration, participation, or intervention as long as it is run in accordance with the terms of the instrument...."

Glossary*

Book. A publication intended as a permanent reference or textbook or as a major critical review of a technical or regulatory topic. It may be *casebound* (hardback) or paperbound.

Camera-ready copy. Pages ready for printing by the offset printing process. This is a colloquial term used even though the printing process may not involve the so-called copy camera (see also *reproducible masters*).

Casebound. Term denoting a book with a hard cover.

Compose. To arrange letters, in type or film, for printing. Usually synonymous with *typesetting*.

Composition. The process of setting type by hot-metal casting, phototypesetting, or electronic character generating devices (e.g., computers) for the purpose of producing *camera copy*, negatives, a plate, or image to be used in the production of *printing* or microform.

Contractor report. Record of work done (a report) prepared in accordance with the provisions of a contract or under or pursuant to an interagency agreement.

Copyright. A form of protection provided by the laws of the United States (Title 17, U.S. Code), to the authors of "original works of authorship" including literary, dramatic, musical, artistic, and certain other intellectual works. This protection is available to both published and unpublished works. Copyrighted material may not be reproduced without the permission of the author or publisher.

Disseminate. To announce the publication of reports and make them available for free distribution, sale, or copying.

*Words in *italics* in definitions are also defined in the glossary.

Glossary (continued)

Distribute. To dispense reports to specific organizations and individuals to ensure their 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 Information Support Services, Office of Information Resources Management, at the request of the originating office or region.

Documentation. Classification and associated markings required for classified or sensitive unclassified documents, the NRC report number unique to the report, title (and subtitle, if any), author or correspondent (if any), organization identification and contract number (or FIN number), date, and availability.

Edition. All copies of a book printed from the same type. Edition also refers to format, such as *paperback*, *casebound*, or to the text, as revised, expanded, and so on. If extensive revisions have been made to the text and the book is reprinted, the revised version is the new edition.

Grant. A legal instrument which defines the relationship between the Government and a recipient for the transfer of money, property, services or anything of value to the recipient for the accomplishment of a public purpose of support or stimulation authorized by law. A grant presumes a limited amount of involvement by the agency in the performance by the recipient.

Grant Report. A record of work done prepared in accordance with the provisions of *grant*.

Index. An alphabetical list of all major topics discussed in a *book*. It cites the page numbers where each topic can be found. The index comes as the last section of a book.

International agreement. Cooperative nuclear safety research programs that involve either or both foreign governments and organizations and U.S. industry. Such involvement, authorized under 42 U.S.C. 5801, includes monetary contributions, information exchanges, and comments on program plans and results.

International agreement report. A record of work done prepared in accordance with the provisions of an *international agreement*.

Glossary (continued)

Manuscript. A handwritten, typewritten, or *composed* version of a document, as distinguished from a printed copy.

NRC project manager. The NRC staff member responsible for the work performed by consultants or contractors and their subcontractors, or for work performed under or pursuant to an interagency agreement.

Paperback. A *book* with a flexible paper cover.

Peer review. A critical evaluation of the technical contents of a publication. These reviews are conducted by reviewers from the author's own or a related field who are totally independent of the work leading to the *manuscript*. Reviewers should be chosen from the potential audience for the publication and should provide an independent judgment about whether the publication successfully accomplishes the author's aims.

Photocomposition. *Typesetting* performed when photosensitive paper or film is exposed to light in the form of letters and characters. Photocomposition is to be distinguished from hot metal and typewriter *composition*.

Printing. As defined by the Joint Committee on Printing, includes and applies to the process of *composition*, platemaking, presswork, collating, and microform; the equipment used in such processes; or the end product produced by such processes and equipment.

Proprietary information. Trade secrets; privileged or confidential research, development, commercial or financial information, exempt from mandatory disclosure under 10 CFR Part 2 (Sections 2.740 and 2.790) and under 10 CFR Part 9 (Section 9.17); and other information submitted in confidence to the NRC by a foreign source and determined to be unclassified by the NRC.

Public domain. Materials on which *copyright* never existed, such as U.S. Government publications, or on which copyright has expired.

Publicly available documents. Information (reports and references) that is available in the NRC Public Document Room (PDR) for public inspection and copying or available in the *public domain*.

Glossary (continued)

Reproducible masters. *Camera-ready copy* that includes (1) originals of line drawings (or prints that can be copied); (2) glossy prints of black and white photographs; (3) original *typeset* or printed text, tables, cover, title page, contents, and abstract; or (4) other forms of the materials that a printer can reproduce.

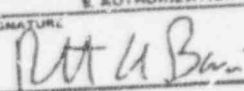
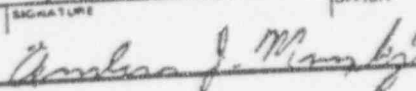
Trim size. The final size of the whole page, margins included.

Typesetting. The placement of type on a page (letters, numbers, and other characters) in conformance with specific style and layout instructions.

Unique identification. NRC identification (NUREG number) used on a report and its attachments, revisions, and supplements, that is not used on any other publication.

Unclassified Contractor and Grantee
 Publications in the NUREG Series
 Part 1 - Publications, Mail, and Information Disclosure
 Handbook 3.8 Exhibits

Exhibit 1

NRC FORM 425A (2-89) NRCM 1102, 2202		U.S. NUCLEAR REGULATORY COMMISSION		1. REPORT NUMBER (if any) NUREG/CR-5627 BNL-NUREG-52257	
RELEASE TO PUBLISH UNCLASSIFIED NRC CONTRACTOR, CONSULTANT, OR CONFERENCE PROCEEDINGS REPORTS (Please Type or Print)					
2. TITLE AND SUBTITLE (Give in full as shown on cover sheet) Alternate Modal Combination Methods in Response Spectrum Analysis				3. FIN OR GRANT NUMBER (Do not list DOE contract number) A-3955	
4. AUTHORS (If more than three, name first author followed by "and others") P. Bezler and others					
5. CONTRACTOR Brookhaven National Laboratory Department of Nuclear Energy		MAILING ADDRESS (Number and Street, City, State and ZIP Code) Building 129 Upton, NY 11973		TELEPHONE NUMBER 666-2447	
6. TYPE OF DOCUMENT (Check appropriate box)					
<input checked="" type="checkbox"/> A. TECHNICAL REPORT					
<input checked="" type="checkbox"/> FORMAL					
<input type="checkbox"/> LETTER REPORT					
B. CONFERENCE PAPER (If an abstract form (1), (2), and (3) below)					
(1) TITLE OF CONFERENCE PAPER:					
(2) DATE(S) OF CONFERENCE:					
(3) LOCATION OF CONFERENCE:					
C. OTHER (Indicate type of item)					
7. DISTRIBUTION (List NRC distribution codes. Prepare mailing label for general distribution and forward to NRC under NRC label. Provide mailing label only if external address is appropriate mailing address.)					
RA 50 copies: Judy Liu, Technical Information Division, Bldg. 477B, Brookhaven National Laboratory, Upton, NY 11973 10 copies: Nilesh Chokshi, RES. NL/S-217					
8. CERTIFICATION (ANSWER ALL QUESTIONS)					
YES	NO	A. REFERENCE AVAILABILITY - Is all material referenced in this report available to the public either through a public library, the Government Printing Office, the National Technical Information Service, or the NRC Public Document Room? If no, list the specific availability of a reference document with the reference listing below.			
X		SPECIFIC AVAILABILITY			
	X	B. COPYRIGHTED MATERIAL - Does this report contain copyrighted material? If yes, attach a letter of release from the owner that grants the copyright.			
	X	C. COMPUTER CODES - Does this report contain a computer code? If yes, does it comply with the standards in NRC Manual Chapter 6504, "Planning and Control of Automatic Data Processing (ADP) Resources"?			
	X	D. PATENT CLEARANCE - Does this report require patent clearance? If yes, the NRC Patent Counsel must signify clearance by signing below.			
		NRC PATENT COUNSEL (Type or Print Name)		SIGNATURE	
	X	E. INFORMATION REQUESTS - Does this report contain any unclassified, unreviewed, or data collection requests?			
	X	F. LICENSING REQUIREMENTS - Does this report impose requirements on licensees?			
9. AUTHORIZATION					
A. DOE LAB AUTHORIZING OFFICIAL (If applicable) (Type or Print Name)		SIGNATURE		DATE	
R.A. Bari				9/25/90	
NRC RESPONSIBLE STAFF MEMBER (Type or Print Name)		SIGNATURE		OFF/DIV	TELEPHONE
A. Murphy				MAIL STOP	DATE
				442-3860	NLS217A 10/10/90

Unclassified Contractor and Grantee
Publications in the NUREG Series
Part 1 - Publications, Mail, and Information Disclosure
Handbook 3.8 Exhibits

Exhibit 2A

BIBLIOGRAPHIC DATA SHEET <small>(See instructions on the reverse)</small>		U.S. NUCLEAR REGULATORY COMMISSION
2. TITLE AND SUBTITLE Pressure-Dependent Fragilities for Piping Components: Pilot Study on Davis-Besse Nuclear Power Station		1. REPORT NUMBER <small>(Numbered by NRC, Add'l Nat. Sec. Div., and Publications Programs, if any.)</small> NUREG/CR-5603 EGG-2607
		3. DATE REPORT PUBLISHED <small>MONTH YEAR</small> October 1990
5. AUTHOR(S) D.A. Wesley, T.R. Kipp, D.K. Nakaki, H. Hadidi-Tamjed		4. FUND OR GRANT NUMBER B5699
		6. TYPE OF REPORT Technical
8. PERFORMING ORGANIZATION - NAME AND ADDRESS <small>(If NRC, provide Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address, if different, provide name and mailing address.)</small> ABB Impeil Corporation 27401 Los Altos, Suite 480 Mission Viejo, CA 92691		7. PERIOD COVERED <small>(Month/Day)</small> []
		9. SPONSORING ORGANIZATION - NAME AND ADDRESS <small>(If NRC, give "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.)</small> Under contract to: Idaho National Engineering Laboratory EG&G Idaho, Inc. Idaho Falls, ID 83415
10. SUPPLEMENTARY NOTES		
11. ABSTRACT <small>(200 words or less)</small> <p>The capacities of four, low-pressure fluid systems to withstand pressures and temperatures above the design levels were established for the Davis-Besse Nuclear Power Station. The results will be used in evaluating the probability of plant damage from Interfacing System Loss of Coolant Accidents (ISLOCA) as part of the probabilistic risk assessment of the Davis-Besse nuclear power station undertaken by EG&G Idaho, Inc. Included in this evaluation are the tanks, heat exchangers, filters, pumps, valves, and flanged connections for each system. The probabilities of failure, as a function of internal pressure, are evaluated as well as the variabilities associated with them. Leak rates or leak areas are estimated for the controlling modes of failure. The pressure capacities for the pipes and vessels are evaluated using limit-state analyses for the various failure modes considered. The capacities are dependent on several factors, including the material properties, modeling assumptions, and the postulated failure criteria. The failure modes for gasketed-flange connections, valves, and pumps do not lend themselves to evaluation by conventional structural mechanics techniques and evaluation must rely primarily on the results from ongoing gasket research test programs and available vendor information and test data.</p>		
12. KEY WORDS/DESCRIPTORS <small>(List key words or phrases that will assist researchers in locating this report.)</small> pressure-dependent fragilities piping components Interfacing System Loss of Coolant Accidents (ISLOCA) probabilistic risk assessment Davis-Besse Nuclear Power Station		13. AVAILABILITY STATEMENT Unlimited
		14. SECURITY CLASSIFICATION <small>(This Page)</small> Unclassified
		<small>(This Report)</small> Unclassified
		15. NUMBER OF PAGES []
		16. PRICE []

Unclassified Contractor and Grantee
Publications in the NUREG Series
Part 1 - Publications, Mail, and Information Disclosure
Handbook 3.8 Exhibits

Exhibit 2B

DO NOT PRINT THESE INSTRUCTIONS AS A PAGE IN THE NUREG REPORT

INSTRUCTIONS

NRC FORM 335, BIBLIOGRAPHIC DATA SHEET, IS BASED ON GUIDELINES FOR FORMAT AND PRODUCTION OF SCIENTIFIC AND TECHNICAL REPORTS, ANSI Z39.18-1987 AVAILABLE FROM AMERICAN NATIONAL STANDARDS INSTITUTE, 1430 BROADWAY, NEW YORK, NY 10018. EACH SEPARATELY BOUND REPORT—FOR EXAMPLE, EACH VOLUME IN A MULTIVOLUME SET—SHALL HAVE ITS UNIQUE BIBLIOGRAPHIC DATA SHEET.

1. **REPORT NUMBER.** Each individually bound report must carry a unique alphanumeric designation (NUREG) assigned by the Regulatory Publications Branch, Division of Freedom of Information and Publications Services, in accordance with American National Standard ANSI Z39.23-1983, Standard Technical Report Number (STRN). Use uppercase letters, Arabic numerals, slashes, and hyphens only, as in the following examples: NUREG-0100, NUREG/CP-0010, NUREG/CR-0100, and NUREG/BR-0010. For reports in a series add Vol., Supp., Rev., and Addendum, when necessary. Add contractor cross-reference identification number (if any) below NUREG-series number, e.g., PNL-XXXX, SANDXX-XXXX, SAI-XXXX.
2. **TITLE AND SUBTITLE.** Title should indicate clearly and briefly the subject (coverage) of the report; including any subtitle to the main title. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. Use upper and lower case letters, but capitalize computer code names. Do not use acronyms and initials in titles; may be added in parenthesis.
3. **DATE REPORT PUBLISHED.** Each report must carry a date indicating month and year published.
4. **FIN OR GRANT NUMBER.** Insert the FIN or grant number under which report was prepared.
5. **AUTHOR(S).** Give name(s) in conventional order (e.g., John R. Doe, J. Robert Doe). List author's affiliation if it is different from the performing organization.
6. **TYPE OF REPORT.** Staff draft, final, preliminary, topical, technical, regulatory, annual, quarterly, etc.
7. **PERIOD COVERED.** Add inclusive dates.
8. **PERFORMING ORGANIZATION NAME AND MAILING ADDRESS.** Give name, street, city, state, and ZIP code. List no more than two levels of an organizational hierarchy. Display the name of the organization exactly as follows: Division, Office, Organization or Government agency, and address.
9. **SPONSORING ORGANIZATION.** If NRC, type "Same as above"; if contractor, provide NRC Division, Office or Region, U.S. Nuclear Regulatory Commission, and mailing address.
10. **SUPPLEMENTARY NOTES.** Enter information not included elsewhere but useful, such as: Prepared in cooperation with ... Presented at conference of ... To be published ... Docket No. ... When a report is revised, indicate whether the new report supersedes or supplements the older report.
11. **ABSTRACT.** Include a brief (200 words or less) factual summary of the most significant information contained in the report. If the report contains a significant bibliography or literature survey or multiple volumes, mention it here. Abstract is to be prepared by author or project manager.
12. **KEY WORDS/DESCRIPTORS.** Select from the Energy Data Base Subject Thesaurus, DOE/TIC-700R R-5, the proper authorized terms that identify the major concept of the research and are sufficiently specific and precise to be used as index entries for cataloging.
13. **AVAILABILITY STATEMENT.** Denote public releasability, for example "unlimited", or limitation for reasons other than security.
14. **SECURITY CLASSIFICATION.** Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., unclassified).
15. **NUMBER OF PAGES.** Leave blank. (Added by NTIS)
16. **PRICE.** Leave blank. (Added by NTIS)

U.S. GOVERNMENT PRINTING OFFICE: 1981 O-565-054

Exhibit 3

MICROFICHE SHEET SAMPLE

NUREG/CR-XXXX CONTRACTOR ID NO. CLASSIFICATION	DESCRIPTION OF MICROFICHE (e.g., Appendix A)	PUBLICATION DATE 83 of 09 (Sheet ID)
CONTRACTOR NAME (Optional)		
		

CONTRACT PRICING PROPOSAL COVER SHEET

1. SOLICITATION/CONTRACT/MODIFICATION NO.

FORM APPROVED
OMB NO.
9000-0013

NOTE: This form is used in contract actions if submission of cost or pricing data is required. (See FAR 15.804-6(b))

2. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

3A. NAME AND TITLE OF OFFEROR'S POINT OF CONTACT

3B. TELEPHONE NO.

4. TYPE OF CONTRACT ACTION (Check)

- | | |
|--|---|
| <input type="checkbox"/> A. NEW CONTRACT | <input type="checkbox"/> D. LETTER CONTRACT |
| <input type="checkbox"/> B. CHANGE ORDER | <input type="checkbox"/> E. UNPRICED ORDER |
| <input type="checkbox"/> C. PRICE REVISION/REDETERMINATION | <input type="checkbox"/> F. OTHER (Specify) |

5. TYPE OF CONTRACT (Check)

- FFP CPFF CPIF CPAF
 FPI OTHER (Specify)

6. PROPOSED COST (A+B=C)

- | | | |
|---------|---------------|----------|
| A. COST | B. PROFIT/FEE | C. TOTAL |
| \$ | \$ | \$ |

7. PLACE(S) AND PERIOD(S) OF PERFORMANCE

8. List and reference the identification, quantity and total price proposed for each contract line item. A line item cost breakdown supporting this recap is required unless otherwise specified by the Contracting Officer. (Continue on reverse, and then on plain paper, if necessary. Use same headings.)

A. LINE ITEM NO.	B. IDENTIFICATION	C. QUANTITY	D. TOTAL PRICE	E. REF.

9. PROVIDE NAME, ADDRESS, AND TELEPHONE NUMBER FOR THE FOLLOWING (If available):

A. CONTRACT ADMINISTRATION OFFICE

B. AUDIT OFFICE

10. WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK? (If "Yes," identify)

- YES NO

11A. DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT? (If "Yes," complete Item 11B)

- YES NO

11B. TYPE OF FINANCING (check one)

- ADVANCE PAYMENTS PROGRESS PAYMENTS
 GUARANTEED LOANS

12. HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCONTRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS? (If "Yes," identify item(s), customer(s) and contract number(s))

- YES NO

13. IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTIMATING AND ACCOUNTING PRACTICES AND PROCEDURES AND FAR PART 31 COST PRINCIPLES? (If "No," explain)

- YES NO

14. COST ACCOUNTING STANDARDS BOARD (CASB) DATA (Public Law 91-379 as amended and FAR PART 30)

A. WILL THIS CONTRACT ACTION BE SUBJECT TO CASB REGULATIONS? (If "No," explain in proposal)

- YES NO

B. HAVE YOU SUBMITTED A CASB DISCLOSURE STATEMENT (CASB DS-1 or 2)? (If "Yes," specify in proposal the office to which submitted and if determined to be adequate)

- YES NO

C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON-COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)

- YES NO

D. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)

- YES NO

This proposal is submitted in response to the RFP, contract, modification, etc. in Item 1 and reflects our best estimates and/or actual costs as of this date and conforms with the instructions in FAR 15.804-6(b) (2), Table 15-2. By submitting this proposal, the offeror, if selected for negotiation, grants the contracting officer or an authorized representative the right to examine, at any time before award, those books, records, documents and other types of factual information, regardless of form or whether such supporting information is specifically referenced or included in the proposal as the basis for pricing, that will permit an adequate evaluation of the proposed price.

15. NAME AND TITLE (Type)

16. NAME OF FIRM

17. SIGNATURE

18. DATE OF SUBMISSION

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.

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 basis 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 in 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.

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

B. Change Orders (modifications).

Cost Elements (1)	Estimated Cost of All Work Deleted (2)	Cost of Deleted Work Already Performed (3)	Net Cost to Be Deleted (4)	Cost of Work Added (5)	Net Cost of Change (6)	Reference (7)
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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 results 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.

C. Price Revision/Redetermination

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

Cost Elements (7)	Incurred Cost- Preproduc- tion (8)	Incurred Cost Completed Units (9)	Incurred Cost- Work In Process (10)	Total Incurred Cost (11)	Estimated Cost To Complete (12)	Estimated Total Cost (13)	Reference (14)
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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 parenthesis. 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 offeror'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 (2) 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. Furnish 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.

Hardware and Software Requirements for Workstation:

Minimum Hardware Requirements:

1. Clock speed: 33 MHz
2. 20 MFLOPS
3. 64 MBytes RAM, with floating point processor
4. 2.5 GBytes of internal or external fast storage (15 ms or better)
5. 3.5 inch (1.44MB) diskette drive
6. 16-inch color monitor, 1280x1024 pixels
7. 4-mm external tape drive (2.3 GB or greater)
8. 1/4 inch 150MB tape drive
9. Ethernet adapter, one parallel and two serial ports
10. Two X-terminals with color monitors and ethernet adapters
11. Laserjet printer (HP Laserjet III SI printer or better)
12. Other accessories necessary to connect equipments to workstation
13. Built-in power supply source (50Hz) with an euro-plug
14. UPS-1500 power supply source (220volt, 50Hz)
15. One year on-site warranty on all parts and labor with 48 hour response time

Minimum Software Requirements:

To be installed by the Contractor on the above unit:

1. UNIX system with a license for eight or more users
2. ANSI C and FORTRAN (F77) optimizing compilers
3. X Window graphics environment (X11R4 or newer)

CONTRACTOR SPENDING PLAN - INSTRUCTIONS

The Contractor Spending Plan (CSP) is an important tool for projecting and tracking contract costs and progress each task under the contract.

Applicability

The Nuclear Regulatory Commission (NRC) requires that the CSP be completed for cost reimbursement contracts when the award amount is expected to exceed \$100,000 and the period of performance is expected to exceed 6 months. For task order type contracts, a CSP is required when an individual cost reimbursement task order is expected to exceed the above thresholds. When a contract or task order modification increases the contract or task order amount of a cost reimbursement contract or task order to over \$100,000 and the period of performance from the effective date of the modification to the contract or task order expiration exceeds 6 months, a CSP is required for all contract work to be performed after the effective date of the modification.

Submission

1. A CSP is required:
 - a. as part of the cost proposal for a cost reimbursement contract or individual task order, or modification to a contract or task order which meets the above thresholds;
 - b. as part of the Best and Final Offer (if requested) as a result of negotiations;
2. Updated CSP information is required on a monthly basis or as approved by the CO as part of the "Financial Status Report" (Ref: Section F.3, "Financial Status Report").

Format

The attached CSP sample format may be duplicated and used by the Contractor, or modified to permit more accurate reporting or to meet other needs of the contractor. For instance, the sample format provides spaces to report projected costs for 12 months, but the contractor may wish to alter the sample format for shorter or longer contract/task order periods. The contractor may also wish to alter the sample format for ease of typing or automated production. So long as complete information is provided on actual and projected costs or accomplishments, changes to the format to improve relevance to the circumstances are encouraged.

It is up to the discretion of the offeror to determine the appropriate level of cost detail to be presented based on the complexity of the effort. This plan reflects only the minimum requirements for submission of cost details which will be considered for completeness, reasonableness, and as a measure of effective management of the effort. The Contracting Officer reserves the right to request additional cost information, if deemed necessary.

