

**SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS**  
**OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30**

1. REQUISITION NO. 38-09-729  
 PAGE 1 OF page 1 of 26

2. CONTRACT NO. NRC-38-09-729  
 3. AWARD/EFFECTIVE DATE **MAY 01 2009**  
 4. ORDER NO.  
 5. SOLICITATION NUMBER RS-38-08-737  
 6. SOLICITATION ISSUE DATE

7. FOR SOLICITATION INFORMATION CALL:  
 a. NAME Kala Shankar 301 492 3638  
 b. TELEPHONE NO. (No Collect Calls)  
 8. OFFER DUE DATE/LOCAL TIME

9. ISSUED BY U.S. Nuclear Regulatory Commission  
 Div. of Contracts  
 Attn: Kala Shankar  
 Mail Stop: TWB-01-B10M  
 Washington, DC 20555  
 CODE 3100  
 10. THIS ACQUISITION IS  
 UNRESTRICTED OR  
 SET ASIDE: % FOR:  
 SMALL BUSINESS  
 EMERGING SMALL BUSINESS  
 HUBZONE SMALL BUSINESS  
 SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS  8(A)  
 NAICS:  
 SIZE STANDARD:

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED  
 SEE SCHEDULE  
 12. DISCOUNT TERMS N/A  
 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)  
  
 13b. RATING N/A  
 14. METHOD OF SOLICITATION  
 RFQ  IFB  RFP

15. DELIVER TO U.S. Nuclear Regulatory Commission  
 Div. of Contracts  
 Mail Stop: TWB-01-B10M  
 Washington DC 20555  
 CODE  
 16. ADMINISTERED BY U.S. Nuclear Regulatory Commission  
 Div. of Contracts  
 Mail Stop: TWB-01-B10M  
 Washington, DC 20555  
 CODE 3100

17a. CONTRACTOR/OFFEROR CR ELECTRICAL DISTRIBUTION SERVICES, INC.  
 P.O. BOX 37  
 NORGE, VA 23127  
 CODE  
 FACILITY CODE  
 18a. PAYMENT WILL BE MADE BY Department of Interior / NBC  
 NRCPayments@nbc.gov  
 Attn: Fiscal Services Branch - D2770  
 7301 W. Mansfield Avenue  
 Denver CO 80235-2230  
 CODE 3100  
 TELEPHONE NO. 757-564-9486

17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER  
 18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED  
 SEE ADDENDUM

19. ITEM NO.	20. See CONTINUATION Page SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
001	Course Development (one-time charge) Includes draft manuals outline for both instructor & student Draft copies of the instructor and student manual outline, exam questions, draft problems, and visual aids. Final Course Material: student & instructor manual, exam question&answers, Study question & answers, visual aids Computer Data Storage (e.g. CD, DVD etc.), course schedule texts and handouts, exam with answer key, report.	[REDACTED]	LOT	[REDACTED]	\$40,000.00
002	Medium Voltage Circuit Breaker Course Year 1	[REDACTED]	EACH	[REDACTED]	\$19,000.00
003	Medium Voltage Circuit Breaker Course Year 2 (Option Year 1)	[REDACTED]	EACH	[REDACTED]	\$15,000.00
004	Medium Voltage Circuit Breaker Course Year 3 (Option Year 2)	[REDACTED]	EACH	[REDACTED]	\$16,500.00
005	Medium Voltage Circuit Breaker Course Year 4 (Option Year 3)	[REDACTED]	EACH	[REDACTED]	\$17,000.00
006	Medium Voltage Circuit Breaker Course Year 5 (Option Year 4)	[REDACTED]	EACH	[REDACTED]	\$18,500.00
007	OPTIONAL: SPECIALIZED COURSE DEVELOPMENT  FUNDING IN THE AMOUNT OF \$59,000 IS OBLIGATED.  The Project Officer for this contract is Doug Tharp. (Use Reverse and/or Attach Additional Sheets as Necessary)	[REDACTED]	EACH	[REDACTED]	\$33,850.00
					\$159,850.00

25. ACCOUNTING AND APPROPRIATION DATA See CONTINUATION Page  
 9-8415-122114; R-8457; 252A; 31X0200  
 OBLIGATE: \$59,000  
 26. TOTAL AWARD AMOUNT (For Govt. Use Only)

27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA  ARE  ARE NOT ATTACHED.  
 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA  ARE  ARE NOT ATTACHED

28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 2 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED  
 29. AWARD OF CONTRACT: REF. OFFER DATED YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN IS ACCEPTED AS TO ITEMS:

30a. SIGNATURE OF OFFEROR/CONTRACTOR *James D Caninus*  
 30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT) JAMES D CANINUS MANAGER  
 30c. DATE SIGNED 5/1/09  
 31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER) *Kala Shankar*  
 31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) Kala Shankar Contracting Officer  
 31c. DATE SIGNED 4/29/09

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	<p>The following documents are attached:</p> <ol style="list-style-type: none"> <li>1. Proposed Course Topics</li> <li>2. NRC Style Guide</li> <li>3. Task Order Sample Form</li> <li>4. Billing Instructions</li> <li>5. Organizational Conflict of Interest Guidance</li> </ol>				

32a. QUANTITY IN COLUMN 21 HAS BEEN

RECEIVED     
 INSPECTED     
 ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED: \_\_\_\_\_

32b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32c. DATE	32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE
--	-----------	---

32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE
	32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE

33. SHIP NUMBER <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR	36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	37. CHECK NUMBER
--	--------------------	---------------------------------	--	------------------

38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY
------------------------	------------------------	-------------

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT	42a. RECEIVED BY (Print)	
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE	42b. RECEIVED AT (Location)
		42c. DATE REC'D (YY/MMDD)

## Table of Contents

<b>SECTION A</b> .....	<b>A-1</b>
A.1 SF 1449 SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS .....	A-1
<b>SECTION B - CONTINUATION BLOCK</b> .....	<b>B-1</b>
B.1 PRICE/COST SCHEDULE .....	B-1
B.2 DELIVERY SCHEDULE .....	B-2
B.3 CONSIDERATION AND OBLIGATION – DELIVERY ORDERS (JUN 1988).....	B-3
B.4 STATEMENT OF WORK .....	B-3
B.5 DURATION OF CONTRACT PERIOD ALTERNATE 2 (MRC 1987).....	B-9
B.6 2052.215-70 KEY PERSONNEL (JAN 1993).....	B-9
B.7 2052.215-71 PROJECT OFFICER AUTHORITY (NOVEMBER 2006).....	B-10
B.8 GOVERNMENT FURNISHED EQUIPMENT/PROPERTY (JUN 1988).....	B-12
B.9 DELIVERY ORDER PROCEDURES.....	B-12
B.10 ORDERING PROCEDURES (MAY 1991).....	B-13
<b>SECTION C - CONTRACT CLAUSES</b> .....	<b>C-1</b>
C.1 52.216-21 REQUIREMENTS (OCT 1995).....	C-1
C.2 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (JAN 2009) .....	C-1
C.3 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES (JULY 2006) .....	C-7
C.4 52.216-22 INDEFINITE QUANTITY (OCT 1995).....	C-7
C.5 52.217-8 OPTION TO EXTEND SERVICES (NOV 1999).....	C-8
C.6 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000).....	C-8
C.7 SEAT BELT .....	C-8
C.8 ORGANIZATIONAL CONFLICT OF INTEREST INFORMATION .....	C-8
<b>SECTION D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS</b> .....	<b>D-1</b>

SECTION B - CONTINUATION BLOCK

B.1 PRICE/COST SCHEDULE

ITEM NO.	DESCRIPTION OF SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
1.	COURSE DEVELOPMENT (one time charge)	[REDACTED]	LOT	[REDACTED]	\$40,000
2.	MEDIUM VOLTAGE CIRCUIT BREAKERS COURSE - YEAR 1	[REDACTED]	EACH	[REDACTED]	\$19,000
3.	OPTION YEAR 1: MEDIUM VOLTAGE CIRCUIT BREAKERS COURSE - YEAR 2	[REDACTED]	EACH	[REDACTED]	\$15,000
4.	OPTION YEAR 2: MEDIUM VOLTAGE CIRCUIT BREAKERS COURSE - YEAR 3	[REDACTED]	EACH	[REDACTED]	\$16,500
5.	OPTION YEAR 3: MEDIUM VOLTAGE CIRCUIT BREAKERS COURSE - YEAR 4	[REDACTED]	EACH	[REDACTED]	\$17,000
6.	OPTION YEAR 4: MEDIUM VOLTAGE CIRCUIT BREAKERS COURSE - YEAR 5	[REDACTED]	EACH	[REDACTED]	\$18,500
7.	OPTIONAL SPECIALIZED COURSE DEVELOPMENT (only upon request)	[REDACTED]	LOT	[REDACTED]	\$33,850
GRAND TOTAL ---					\$159,850.00

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## B.2 DELIVERY SCHEDULE

ITEM NO.	DESCRIPTION	QUANTITY	SCHEDULE
1	Draft Course Outline (electronic copy acceptable)		30 days after contract award
2	Draft Student Manual as described in section 4.c.1 (electronic copy acceptable)		60 days after contract award
3	Draft Instructor Manual as described in section 4.c.2 (electronic copy acceptable)		60 days after contract award
4	Draft Written Exam as described in section 4.c.4 (electronic copy acceptable)		60 days after contract award
5	Final Course Outline, Student and Instructor manuals, visual aids, and Written Exam (1 hard copy each, 1 electronic)		30 days prior to start of the course
6	Student Materials as described in section 4.c.7	As specified for each student registered for the course	30 days prior to start of the course
7	Shipping materials as described in section 4.c.8	As specified for each student registered for the course	30 days prior to start of the course
8	OPTIONAL: Specialized course outline and manuals (only upon request)	As specified for each student registered for the course	Based on PO instructions

**B.3. CONSIDERATION AND OBLIGATION--DELIVERY ORDERS (JUN 1988)**

(a) The total estimated amount of this contract (ceiling) for the products/services ordered, delivered, and accepted under this contract is \$159,850.00. The Contracting Officer may unilaterally increase this amount as necessary for orders to be placed with the contractor during the contract period provided such orders are within any maximum ordering limitation prescribed under this contract.

(b) The amount presently obligated with respect to this contract is \$59,000. The Contracting Officer may issue orders for work up to the amount presently obligated. This obligated amount may be unilaterally increased from time to time by the Contracting Officer by written modification to this contract. The obligated amount shall, at no time, exceed the contract ceiling as specified in paragraph a above. When and if the amount(s) paid and payable to the Contractor hereunder shall equal the obligated amount, the Contractor shall not be obligated to continue performance of the work unless and until the Contracting Officer shall increase the amount obligated with respect to this contract. Any work undertaken by the Contractor in excess of the obligated amount specified above is done so at the Contractor's sole risk.

(c) The guaranteed minimum by the Government under this contract is \$19,000.00.

**B.4 STATEMENT OF WORK****1. BACKGROUND**

The Nuclear Regulatory Commission (NRC) inspects licensed nuclear facilities and their construction and operation as part of its public health and safety mission. The purpose of these inspections is to verify licensed activities are conducted safely and in accordance with federal regulations. In support of this mission, the NRC's Office of Human Resources conducts a program of training designed to give NRC staff technical information and hands-on experience with Medium Voltage Electrical Circuit Breakers.

**2. CONTRACT OBJECTIVE**

The objective of this contract is to revise and update course material and present a training course entitled "Medium Voltage Circuit Breakers Course." The course will provide NRC inspectors and other technical personnel with information and hands-on experience covering the theory of operation, maintenance, and testing of Medium Voltage Electrical Circuit Breakers as used in the nuclear power industry to control electrical loads important to the safe operation of nuclear facilities. Additionally, regulatory issues associated with Medium Voltage Electrical Circuit Breakers will be discussed. This course will improve the NRC inspectors' ability to conduct in-depth inspections and design reviews to determine whether applicable codes and standards are met.

### 3. SCOPE OF WORK

The contractor shall furnish the necessary personnel, facilities, materials and services to prepare and present the "Medium Voltage Circuit Breaker Course" as ordered by the NRC. Course preparation will consist of revising/modifying the current course materials and developing additional material in accordance with this statement of work and the list of proposed topics provided in Attachment 1. The NRC has the current course manual on CD and will provide a copy to any potential offeror making a request. The NRC reserves the right to visit the offeror's training facility prior to a contract award. The course will be held at the contractor's facility and the facility will be equipped with the necessary medium voltage circuit breakers to support this training. The NRC will provide the following circuit breakers: G.E. Magna Blast AM 4.16, Allis Chalmers MA-250, Westinghouse 50-DHP, and ITE 5HK-350 and cubicle.

Periodically, unique, or one-time training needs may arise. In order to respond to these needs, the NRC requires contractor support to provide specialized training in the area of medium voltage circuit breakers. In some cases, these needs may necessitate training to commence with relatively short advance notice (30 to 60 days).

### 4. COURSE DESCRIPTION

a. Course Content: Each offeror's proposed course outline shall include as a minimum the topics listed in Attachment 1. Changes in, additions to, or deviations from the topics listed are permitted, but the content of the final outline shall be approved by the NRC Project Officer. Course objectives shall be accomplished through a combination of lectures, discussion, demonstrations, and field exercises providing hands-on experience in the various aspects of medium voltage circuit breakers.

b. Course Duration: The course shall be approximately thirty two (32) hours in duration (four days @ 7 hours per day, with the last day consisting of 4 hours).

c. Course Materials: The contractor shall provide the course material (the student manuals and all reference materials) to the current industry standards, and shall be utilized for the period of the contract, including optional periods. During the contract period, in the event of new regulatory requirements or significant changes to industry standards, the course material will be updated via a modification to the contract. The modification to the contract will be via a Statement of Work which will establish the work to be performed and the schedule for delivery. All manuals, both instructor and student, shall be prepared in Microsoft Word 2003, the NRC word processing software program. Any graphics presentations used in the course will be developed in Microsoft Power Point format. All course and reference materials as well as training aids prepared or created by the contractor or obtained for the NRC for use in the presentation of this course will become the property of the NRC upon completion of this contract.

The contractor shall provide the following items:

#### 1. Student Manual

i. The contractor shall provide a student manual for use during the presentation of the course material. The student manual shall include printed copies of view graphs, slides and other visual aids required to present the course. The Student Manual shall be

placed in a format consistent with the NRC Technical Training Center Style Guide (Attachment 2) or other Project Officer approved format.

- ii. Lesson objectives shall be included at the beginning of each section or chapter.
- iii. The student manual shall also include a Table of Contents, a glossary of common terms and copies of relevant reference material. Short references (approximately six pages or less) shall be included in the manual while lengthy references shall be listed in a bibliography which provides the student with sufficient information to determine what issues the reference covers and where a copy may be obtained.

The contractor shall provide a draft copy of the student manual to the NRC Project Officer for review and approval. The contractor shall revise the draft student manual incorporating the NRC Project Officer's comments. The contractor shall provide the final student manual to the NRC Project Officer for review and approval. After receipt of approval, the contractor shall provide one copy to the NRC Project Officer, including computer data storage (e.g., disks, cds, dvds, etc.) containing both textual materials, in Microsoft Word 2003 format, and graphics material, in Microsoft PowerPoint format.

## 2. Instructor Manual

The contractor shall provide an instructor manual to supplement the student manual. The instructor manual shall include, as a minimum:

- i. Detailed Course Outline;
- ii. Clearly defined learning objectives for each topic;
- iii. Copies or detailed description of each visual aid;
- iv. Detailed lesson plans indicating the manner in which the student material will be presented by the instructor, including appropriate references to which visual aids and other materials are required during the presentation, and indicate when it is to be used during the presentation; or, a Microsoft PowerPoint presentation may be used as a substitute if adequate instructor information is provided in the notes section.
- v. Detailed references to course references, codes, and standards.

The instructor's manual shall be prepared in sufficient detail to allow a qualified individual who has not previously conducted the course to present the material in an organized fashion.

The contractor shall provide a draft copy of the instructor manual to the NRC Project Officer for review and approval. The contractor shall revise the draft instructor manual incorporating the NRC Project Officer's comments. The contractor shall provide the final instructor manual to the NRC Project Officer for review and approval. After receipt of approval, the contractor shall provide one copy to the NRC Project Officer, including computer data storage (e.g., disks, cds, dvds, etc.) containing the textual materials in Microsoft Word 2003 format and graphics material in Microsoft PowerPoint format.

## 3. Visual Aids



The Contractor shall develop or provide visual aids to assist students in understanding the course material. The contractor shall use these visual aids to supplement the presentation of the course material. Any visual aid which the contractor deems necessary for the presentation of this course must be provided to the NRC Project Officer as an integral part of the training package. A hard copy of each visual aid used during the course should be included in the student manual as a figure plate at the end of the applicable chapter.

The contractor shall provide a draft copy of the visual aids to the NRC Project Officer for review and approval. The contractor shall revise the draft visual aids incorporating the NRC Project Officer's comments. The contractor shall provide the final visual aids to the NRC Project Officer for review and approval. After receipt of approval, the contractor shall provide one hard copy to the NRC Project Officer, including computer data storage (e.g., disks, cds, dvds, etc.) containing the visual aid material in Microsoft Word 2003 format or Microsoft PowerPoint format.

#### 4. Written Examinations

The contractor shall develop written examinations to evaluate the students' performance to verify that they have obtained the proper level of understanding of the course material.

a. The examination shall consist of twenty five (25) questions based on the learning objectives in the student course manual. The majority of questions shall be multiple-choice with four possible answers and only one correct answer. Responses such as "None of the Above," and "All of the Above," shall not be used as a response to an examination question. No question shall be in the True/False format. No more than five (5) questions shall be phrased requiring a negative response, i.e., "which of the following is not correct?" Any such question shall emphasize the negative element, (e.g., **NOT** or NOT). Examinations for courses after the first course shall not repeat more than 50% of the questions used on a previous course examination.

b. The contractor shall administer, proctor and grade the examinations.

c. The contractor shall develop, provide, and grade re-examinations as required, for students who do not demonstrate a sufficient understanding of course material (70% or higher on the examination). Re-examinations shall not repeat more than 50% of the questions used on the previous course examination. The re-examination may utilize the examination developed for the next course where possible. The re-examination will be administered by NRC personnel. A copy of the re-examination shall be submitted to the NRC Project Officer two weeks prior to the date it will be administered.

d. If requested, the contractor shall provide an equivalency examination during the time of each course presentation to the NRC Project Officer for a student who desires to validate their understanding of the course material. The equivalency examination(s) will utilize the examination to be administered at the upcoming course, and will be administered to the student(s) by NRC personnel. A copy of the equivalency examination will be submitted to the NRC Project Officer two weeks prior to the regularly scheduled examination. Equivalency exams will be administered by the NRC and graded by the contractor.

e. The NRC Project Officer will coordinate administering re-examinations and equivalency examinations and, within five (5) days after the examinations, return them to the contractor for grading. When possible, equivalency examinations will be administered on the same day as the normally scheduled class session examination is being administered. For re-examinations, it will be attempted to administer the re-examination during the scheduled examination time during the next regularly scheduled session of the course. In the event that only one session is held during a given FY a re-examination will be administered at a mutually convenient time agreed on by both the contractor and the NRC Project Officer.

5. Transportation for all students between the training site and any field exercises or demonstrations.

6. A map of the course locality clearly showing the training facility and nearby lodging available to the students. This shall be provided to the NRC Project Officer sixty (60) days prior to the course.

7. Training materials for each student including:

a. A student manual which shall include learning objectives for each section, a copy of relevant industry standards and NRC Regulatory Guides, Generic Communications, and policy documents relevant to the subject matter.

b. A copy of relevant view graphs used during the course presentation and not already provided in the student manual.

c. Applicable case histories or other handouts, not already included in the student manual.

The use of handouts shall be kept to a minimum, and shall represent material that could not have been incorporated in the student manual prior to the start of the course.

8. Shipping boxes and shipping expenses for shipping student manuals via the USPS at the book-rate to the student mailing addresses following completion of the course.

## 5. TECHNICAL QUALIFICATION REQUIREMENTS

The courses shall be conducted by a contractor with broad experience in the field of Medium Voltage Electrical Circuit Breakers. Course instructors must have expertise in the operation, maintenance, and testing of electrical circuit breakers.

Course instructors must also have expertise in course instruction, with experience providing instruction to, and supervising the activities of individuals who have little or no experience in the operation or testing of medium voltage electrical circuit breakers, or industrial safety, to ensure applicable Federal and State safety requirements are met in this course.

The contractor shall propose at least two (one primary and one back-up) instructors to present each course. For each proposed instructor, a résumé shall be submitted to the

NRC Project Officer for approval. Résumés shall also be provided for those individuals preparing the student and instructor manuals, if different from the instructors.

## 6. GENERAL INFORMATION

a. Class size shall be approximately fifteen (15) students and two (2) optional observers (the Project Officer and/or an individual designated by the Project Officer). Observers will be provided with a copy of the student training materials. These two optional observer positions may be used as regular student positions if the observers designated by the Project Officer do not attend.

b. Class hours should typically start at approximately 8:00 a.m. and end about 4:00 p.m. each day, allowing one hour for a lunch break, with approximately seven hours of instruction time available per day. Breaks shall be provided at a frequency of approximately ten (10) minutes following each fifty (50) minutes of instruction. The first class shall begin at 8:00 a.m. on the first scheduled class day, and end at 12:00 p.m. on the last scheduled class day.

c. The NRC Technical Training Center, Chattanooga, TN and the NRC Project Officer will coordinate student attendance.

d. Student background and experience will vary. The contractor should not assume experience in electrical circuit breakers.

e. The NRC reserves the right to supplement course presentations with NRC technical experts, if available. The Project Officer will notify the contractor in advance of the course presentation if technical experts will be used.

## 7. NUMBER OF COURSES AND COURSE SCHEDULING

The NRC will order at least one course during the period of this contract. Additional courses may be ordered if warranted by student demand. It is anticipated that one course per year will be necessary to meet the NRC's training requirement.

Exact course dates will be arranged with the contractor at least sixty (60) days before each course. Courses will be formally scheduled via a delivery order form signed by both parties. An example is provided in Attachment 3.

Should the NRC determine no later than thirty (30) calendar days prior to the start of a course that the need is insufficient to conduct the training; the NRC may reschedule or cancel the course presentation by written notification to the contractor without obligation to the government.

## 8. SPECIALIZED COURSES

The NRC reserves the right to negotiate the work identified below if necessary. It is anticipated that course development and presentation for any specialized course or seminar will require an estimated level of effort of 400 hours of Professional Labor and 10 hours of Non-Professional Labor for the fixed loaded hourly rate. The rate must include all costs for development and presentation. When a requirement within this contract's scope of work is identified, the Contracting Officer will transmit to the

contractor a request for proposal which identifies the specific work to be performed. Delivery orders for presentation of courses or seminars will then be issued by the NRC Project Officer.

a. The NRC may request the contractor to develop and present specialized seminars or training courses related to those in this statement of work during the period of contract performance. A specific contract modification will be issued for any such work requested.

b. Materials developed for the specialized course shall be submitted to the NRC Project Officer for review prior to using in any subsequent course presentations and will meet the same specification as the initial course materials developed as part of this contract.

#### 9. COURSE MODIFICATIONS

The contractor may be requested to modify all or parts of the training materials developed for a course to keep the course current. The contractor shall be responsible for ensuring that any such modifications are reflected in the materials provided to the students. A specific contract modification will be issued by the Contracting Officer for any required course modifications.

#### 10. SUBCONTRACTS

Any subcontracts require the prior written approval of the NRC Contracting Officer. Resumes including training and experience of any personnel involved in the subcontract shall be submitted.

#### **B.5. DURATION OF CONTRACT PERIOD ALTERNATE 2 (MAR 1987)**

This contract shall commence on date of award and will expire twelve months from that date. The term of this contract may be extended at the option of the Government for an additional four one year option periods.

#### **B.6. 2052.215-70 KEY PERSONNEL (JAN 1993)**

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

[REDACTED]  
[REDACTED]

\*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 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 and the project officer shall evaluate the contractor's request and the contracting officer shall promptly notify the contractor of his or her decision 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.

#### **B.7. 2052.215-71 PROJECT OFFICER AUTHORITY (NOVEMBER 2006)**

Name: Douglas Tharp  
Address: U.S. Nuclear Regulatory Commission  
Technical Training Center  
5746 Marlin Road, Suite 200  
Chattanooga, TN 37411-5677

Telephone Number: (423) 855-6513

(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, authorizes travel which was unanticipated in the Schedule (i.e., travel not contemplated in the Statement of Work (SOW) or changes to specific travel identified in the SOW), fills in details, or otherwise serves to accomplish the contractual SOW.

(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 reports, drawings, specifications, and technical information to be delivered by the contractor to the Government under the contract.

(c) Technical direction must be within the general statement of work stated in the contract. The project officer does not have the authority to and may not issue any technical direction which:

(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 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. A copy of NRC Form 445, Request for Approval of Official Foreign Travel, which has received final approval from the NRC 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 thereto is subject to 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.

- (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.
- (4) Assist the contractor in obtaining the badges for the contractor personnel.
- (5) Immediately notify the Security Branch, Division of Facilities and Security (SB/DFS) (via e-mail) when a contractor employee no longer requires access authorization and return of any NRC issued badge to SB/DFS within three days after their termination.
- (6) Ensure that all contractor employees that require access to classified Restricted Data or National Security Information or matter, access to sensitive unclassified information (Safeguards, Official Use Only, and Proprietary information) access to sensitive IT systems or data, unescorted access to NRC controlled buildings/space, or unescorted access to protected and vital areas of nuclear power plants receive approval of SB/DFS prior to access in accordance with Management Directive and Handbook 12.3.
- (7) For contracts for the design, development, maintenance or operation of Privacy Act Systems of Records, obtain from the contractor as part of closeout procedures, written certification that the contractor has returned to NRC, transferred to the successor contractor, or destroyed at the end of the contract in accordance with instructions provided by the NRC Systems Manager for Privacy Act Systems of Records, all records (electronic or paper) which were created, compiled, obtained or maintained under the contract.

#### **B.8. GOVERNMENT FURNISHED EQUIPMENT/PROPERTY (JUN 1988)**

The Government will provide the following materials under this contract:

- ITE/ABB 5HK breaker with Cubicle
- Westinghouse DHP Breaker
- Siemens/Allis Chalmers MA Breaker
- GE AM Magna Blast Breaker

#### **B.9. DELIVERY ORDER PROCEDURES**

Delivery Orders shall be issued in writing or via email by the individuals identified in Section B.10. below. The Contracting Officer shall be copied on all Delivery Orders issued.

**B.10. ORDERING PROCEDURES (MAY 1991)**

(a) In addition to the contracting officer, and project officer, the following individuals are authorized to issue delivery orders under this contract:

N/A

(b) All delivery orders shall be prepared in accordance with FAR 16.506 and may be issued in writing, orally, or by written telecommunications.



**SECTION C - CONTRACT CLAUSES****C.1 52.216-21 REQUIREMENTS (OCT 1995)**

(a) This is a requirements contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies or services specified in the Schedule are estimates only and are not purchased by this contract. Except as this contract may otherwise provide, if the Government's requirements do not result in orders in the quantities described as "estimated" or "maximum" in the Schedule, that fact shall not constitute the basis for an equitable price adjustment.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. Subject to any limitations in the Order Limitations clause or elsewhere in this contract, the Contractor shall furnish to the Government all supplies or services specified in the Schedule and called for by orders issued in accordance with the Ordering clause. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(c) Except as this contract otherwise provides, the Government shall order from the Contractor all the supplies or services specified in the Schedule that are required to be purchased by the Government activity or activities specified in the Schedule.

(d) The Government is not required to purchase from the Contractor requirements in excess of any limit on total orders under this contract.

(e) If the Government urgently requires delivery of any quantity of an item before the earliest date that delivery may be specified under this contract, and if the Contractor will not accept an order providing for the accelerated delivery, the Government may acquire the urgently required goods or services from another source.

(f) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after .

**C.2 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (JAN 2009)**

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(2) 52.233-4, Applicable Law for Breach of Contract Claim (Oct 2004) (Pub. L. 108-77, 108-78)

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sept 2006), with Alternate I (Oct 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

(2) 52.203-13, Contractor Code of Business Ethics and Conduct (DEC 2008)(Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(3) 52.219-3, Notice of Total HUBZone Set-Aside (Jan 1999) (15 U.S.C. 657a).

(4) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (July 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

(5) [Reserved]

(6)(i) 52.219-6, Notice of Total Small Business Set-Aside (June 2003) (15 U.S.C. 644).

(ii) Alternate I (Oct 1995) of 52.219-6.

(iii) Alternate II (Mar 2004) of 52.219-6.

(7)(i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).

(ii) Alternate I (Oct 1995) of 52.219-7.

(iii) Alternate II (Mar 2004) of 52.219-7.

(8) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)).

(9)(i) 52.219-9, Small Business Subcontracting Plan (APR 2008) (15 U.S.C. 637(d)(4).)

(ii) Alternate I (Oct 2001) of 52.219-9.

(iii) Alternate II (Oct 2001) of 52.219-9.

(10) 52.219-14, Limitations on Subcontracting (Dec 1996) (15 U.S.C. 637(a)(14)).

(11) 52.219-16, Liquidated Damages--Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).

(12)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (OCT 2008) (10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer.)

(ii) Alternate I (June 2003) of 52.219-23.

(13) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (APR 2008) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

(14) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (Oct 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

(15) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004) (15 U.S.C. 657 f).

(16) 52.219-28, Post Award Small Business Program Rerepresentation (June 2007) (15 U.S.C. 632(a)(2)).

(17) 52.222-3, Convict Labor (June 2003) (E.O. 11755).

(18) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (FEB 2008) (E.O. 13126).

(19) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).

(20) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(21) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).

(22) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).

(23) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).

(24) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).

(25)(i) 52.222-50, Combating Trafficking in Persons (Aug 2007) (Applies to all contracts).

(ii) Alternate I (Aug 2007) of 52.222-50.

(26) 52.222-54, Employment Eligibility Verification (Jan 2009). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)

(27)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C. 6962(c)(3)(A)(ii)).

(ii) Alternate I (May 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).

(28) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007)(42 U.S.C. 8259b)

(29)(i) 52.223-16, IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (Dec 2007) (E.O. 13423).

(ii) Alternate I (Dec 2007) of 52.223-16.

(30) 52.225-1, Buy American Act--Supplies (June 2003) (41 U.S.C. 10a-10d).

(31)(i) 52.225-3, Buy American Act--Free Trade Agreements-- Israeli Trade Act (Aug 2007) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, Pub. L 108-77, 108-78, 108-286, 109-53 and 109-169).

(ii) Alternate I (Jan 2004) of 52.225-3.

(iii) Alternate II (Jan 2004) of 52.225-3.

(32) 52.225-5, Trade Agreements (Nov 2007) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

(33) 52.225-13, Restrictions on Certain Foreign Purchases (JUN 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

(34) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150).

(35) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).

(36) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

(37) 52.232-30, Installment Payments for Commercial Items (Oct 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

(38) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (Oct 2003) (31 U.S.C. 3332).

(39) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (May 1999) (31 U.S.C. 3332).

(40) 52.232-36, Payment by Third Party (May 1999) (31 U.S.C. 3332).

(41) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C. 552a).

(42)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631).

(ii) Alternate I (Apr 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.).

(2) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

Employee Class  
Benefits

Monetary Wage-Fringe

(3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (Nov 2006) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Feb 2002) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

(5) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (Nov 2007) (41 U.S.C. 351, et seq.).

(6) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements "(Nov 2007)" (41 U.S.C. 351, et seq.).

(7) 52.237-11, Accepting and Dispensing of \$1 Coin (SEP 2008) (31 U.S.C. 5112(p)(1)).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated

shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in paragraphs (e)(1)(i) through (xi) of this paragraph in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (DEC 2008) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(ii) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$550,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(iv) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212).

(v) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(vi) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).

(vii) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.).

(viii) 52.222-50, Combating Trafficking in Persons (Aug 2007) (22 U.S.C. 7104(g)). Flow down required in accordance with paragraph (f) of FAR clause 52.222-50.

(ix) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements "(Nov 2007)" (41 U.S.C. 351, et seq.).

(x) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements "(Nov 2007)" (41 U.S.C. 351, et seq.).

(xi) 52.222-54, Employment Eligibility Verification (JAN 2009).

(xii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(xii) 52.245-1, *Alternate I (June 2007)*, Government Property

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

### **C.3 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES (JULY 2006)**

(a) The U.S. Nuclear Regulatory Commission (NRC) contractor and its subcontractor are subject to the Whistleblower Employee Protection public law provisions as codified at 42 U.S.C. 5851. NRC contractor(s) and subcontractor(s) shall comply with the requirements of this Whistleblower Employee Protection law, and the implementing regulations of the NRC and the Department of Labor (DOL). See, for example, DOL Procedures on Handling Complaints at 29 C.F.R. Part 24 concerning the employer obligations, prohibited acts, DOL procedures and the requirement for prominent posting of notice of Employee Rights at Appendix A to Part 24.

(b) Under this Whistleblower Employee Protection law, as implemented by regulations, NRC contractor and subcontractor employees are protected from discharge, reprisal, threats, intimidation, coercion, blacklisting or other employment discrimination practices with respect to compensation, terms, conditions or privileges of their employment because the contractor or subcontractor employee(s) has provided notice to the employer, refused to engage in unlawful practices, assisted in proceedings or testified on activities concerning alleged violations of the Atomic Energy Act of 1954 (as amended) and the Energy Reorganization Act of 1974 (as amended).

(c) The contractor shall insert this or the substance of this clause in any subcontracts involving work performed under this contract.

### **C.4 52.216-22 INDEFINITE QUANTITY (OCT 1995)**

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after .

#### **C.5 52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)**

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within 30 days.

#### **C.6 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)**

(a) The Government may extend the term of this contract by written notice to the Contractor within 60 days; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 years.

#### **C.7. SEAT BELT**

Contractors, subcontractors, and grantees, are encouraged to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented, or personally owned vehicles.

#### **C.8. ORGANIZATIONAL CONFLICT OF INTEREST INFORMATION**

The Contractor shall review the Statement of Work for this project and provide disclosures to the NRC for projects in the same or similar technical area (or matter) as the project services within the scope of this agreement (or task order) being performed



for NRC licensees, vendors, industry groups or research institutes that represent or are substantially comprised of nuclear utilities. All disclosures shall consist of a copy of the official SOW, the name of the organization, the total dollar value, and the period of performance. In addition, the Contractor shall also identify any current or former NRC employees who have been or will be involved in performing work on any given task order. The NRC will use the information to determine if the contractor's work or relationships with other entities gives rise to a potential or actual organizational conflict of interest. See Attachment 5 for OCOI guidance.

**SECTION D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS**

1. Proposed Course Topics
2. NRC Style Guide
3. Delivery Order Sample Form
4. Billing Instructions
5. Organizational Conflict of Interest Guidance
6. Stated on SF 1449

Main Topic	Sub-Topics
Operating principles of Medium Voltage Circuit Breakers	<p>Basic construction, theory of operation</p> <p>Air/Oil/Vacuum/Gas Breakers</p> <p>Breaker types – and general application in nuclear power plants</p> <p>Close/Trip Operation</p> <p>Arc interruption / control</p> <p>Protective devices</p> <p>Current transformers</p> <p>Potential Transformers</p>
Breaker control circuit	<p>Design operation of control circuit</p> <p>Control voltage calculation (minimum voltage for closing and trip coil operation)</p>
Breaker Testing	<p>Purpose, frequency, and types of testing</p> <p>Hands on applications</p>
Preventative Maintenance	<p>Techniques and frequencies</p> <p>Hands on application of Clean &amp; Inspect and lubrication</p> <p>External indicators (breaker position, charging spring condition, etc.)</p> <p>Breaker/switchgear interface and racking circuit breakers in and out of switchgear cubicles</p>
Codes and standards and industry experience	<p>ANSI/IEEE standards and Regulatory requirements.</p> <p>Case histories of breaker problems</p> <p>Bulletin 74-9, "Deficiency in the General Electric Model 4KV Magna-Blast Circuit Breakers," dated August 6, 1974;</p> <p>Information Notice 83-50, "Failures of Class 1E Safety-Related Switchgear Circuit Breakers to Close on Demand," dated August 1, 1983;</p> <p>Information Notice 84-29, "General Electric Magna-Blast Circuit Breaker Problems," dated April 17, 1984;</p> <p>Information Notice 84-46, "Circuit Breaker Position Verification," dated June 13, 1984;</p> <p>Information Notice 87-41, "Failures of certain Brown Boveri Electric Circuit Breakers," dated August 31, 1987;</p> <p>Information Notice 88-42, "Circuit Breaker Failures due to Loose</p>

Charging Spring Motor Mounting Bolts," dated June 23, 1988

Information Notice 88-75 S, "Disabling of Diesel Generator Output Breakers by Anti-pump Circuitry," dated September 16, 1989

Information Notice 89-86, "Type HK Circuit Breakers Missing Close Latch Anti-shock Spring," dated December 15, 1989;

Information Notice 90-41, "Potential Failure of General Electric Magna-Blast Circuit Breakers and AK Circuit Breakers," dated June 12, 1990

Information Notice 91-55, "Failures Caused by an Improperly Adjusted Test Link in 4.16 KV General Electric Switchgear," dated September 16, 1991

Information Notice 91-78, "Status Indication of Control Power for Circuit Breakers Used in Safety-Related Applications," dated November 28, 1991;

Information Notice 93-91, "Misadjustment Between General Electric 4.16-KV Circuit Breakers and Their Associated Cubicles," dated December 3, 1993

Information Notice 94-02, "Inoperability of General Electric Magna-Blast Breakers Because of Misalignment of Closed-Latch Spring," January 7, 1994;

Information Notice 94-54, "Failures of General Electric Magna-Blast Circuit Breakers To Latch Closed," dated August 1, 1994;

Information Notice 95-02, "Problems with General Electric CR2940 Contact Blocks in Medium-Voltage Circuit Breakers," dated January 17, 1995;

Information Notice 95-22, "Hardened or Contaminated Lubricants Cause Metal-Clad Circuit Breaker Failure," dated April 21, 1995;

Information Notice 96-46, "Zinc Plating of Hardened Metal Parts and Removal of Protective Coatings in Refurbished Circuit Breakers," dated August 12, 1996;

Information Notice 96-50, "Problems with Levering-in Devices in Westinghouse Circuit Breakers," dated September 4, 1996;

Information Notice 97-08, "Potential Failures of General Electric Magna-Blast Circuit Breaker Subcomponents," dated March 12, 1997



**Human Resources Training and Development  
Operating Procedure 0408  
HRTD Training Material Style Guide**

Approved: *Kathy Halvey Gibson* Date: *5/30/08*  
Kathy Halvey Gibson, Associate Director for Training and Development

**Table of Contents**

**A. Purpose.....1**

**B. Discussion.....1**

**C. Definitions .....1**

**D. Responsibilities .....1**

**E. Procedure.....1**

    Document Preparation .....1

    Format, Layout, and Typing Instructions .....2

    Editorial Style Requirements .....5

    Abbreviations and Terms .....8

**F. Contact.....13**

**G. References.....13**

**H. Attachments .....13**

    Sample Cover .....14

    Sample Preface.....15

    Sample Table of Contents.....16

    Sample Chapter Layout.....17

    Sample Table Layout .....19

    Sample Lesson Plan Layout.....20

    Sample PowerPoint Layout .....24

**A. Purpose**

The United States Nuclear Regulatory Commission (USNRC) Human Resources Training and Development (HRTD) Training Material Style Guide describes and illustrates the required format for training materials developed for the NRC. Section E.1 gives guidelines and standards for preparation. Section E.2 contains instructions for format and layout of the manuals. Section E.3 contains editorial style requirements and Section E.4 includes the style requirements for abbreviations and terms. This style guide and the training materials are developed in Microsoft Word and PowerPoint

**B. Discussion**

To provide for a standard and consistent format for HRTD training materials.

**C. Definitions**

None.

**D. Responsibilities**

Not applicable.

**E. Procedure****1. Document Preparation****a. Content**

USNRC HRTD training manuals include, in order, the following:

1. Cover
2. Preface
3. Manual Table of Contents
4. Manual Chapters
5. Appendices

Each chapter within the manual includes, in order, the following:

1. Table of Contents
2. Chapter Text
3. Tables
4. Graphics
5. Appendices

**b. General Guidelines****1. Paper**

Use white, good quality, 8½- by 11-inch paper. Foldouts may be used if necessary.

**2. Page Setup**

Set up pages using the attachments to this procedure as templates. Pages use single column (storybook) format with left justified text. Set tabs and indents every 0.35 inch.

**a. Text Margins**

Set text margins using 1.0 inch for the left margin, 1.0 inch for the right margin, and 0.50 inch for the top and bottom margins under File > Page Setup.

b. Footers

Place a 1-point line on the first line of the footer. Place "USNRC HRTD" on the second line of the footer, aligned with the right margin. Center the page number, attachment number, etc., on this same line. Place the revision date (Rev MM/YY) on the same line, aligned with the left margin. (There is no period [.] after the Rev abbreviation.) Use 10-point Arial bold initial caps for footers.

3. Line Spacing

Set line spacing at 1.1 under Format > Paragraph > Indents and Spacing.

4. Page Numbering

Number all pages sequentially within chapters or appendixes in Arabic numerals (for example, 3-1, 6-2, A-4). Page numbers for the table of contents shall be the chapter or section number followed by a dash and then the lower case Roman numerals (3.0-i, 5.1-ii, etc.). Center page numbers in the footer on the bottom of each page using 10-point Arial bold.

5. Figures and Tables

Place all figures and tables at the end of each chapter. Start new tables on odd-numbered pages. Figures do not have page numbers. Small illustrations and tables may be included within the text.

c. Printing Requirements

Print text and tables double-sided; figures single-sided. The standard font color is black. Use other text colors as needed.

d. Binding

Use fabric or plastic spiral binding for all manuals. Notebook-type binders (three-ring style with cover inserts) may also be used. Separate chapters using one-fifth cut tab dividers. The wording on the tabs depends upon the manual. For example, section/chapter number, Attachment X, Appendix Y, etc.

2. Format, Layout, and Typing Instructions

a. Front Matter

1. Cover

Left justify the 5-inch USNRC color logo on the first line of the cover. Center the manual title starting on line 12 using 36-point Arial bold caps. Center the month/day/year of the manual revision in mm/dd/yy format on line 15 using 20-point Arial bold. Place a 1.27 in. by 2 in. HRTD logo at the bottom right-hand corner of the cover page. Attachment 1 illustrates this layout.

2. Preface

The preface is the manual's first page and uses the format in Attachment 2. The preface content generally conforms to Attachment 2, with exceptions allowed due



to contracted work, input from guest instructors, and uses of the manuals for other than NRC training. The preface uses a single column format.

Center the words UNITED STATES NUCLEAR REGULATORY COMMISSION HUMAN RESOURCES TRAINING AND DEVELOPMENT beginning on line 8 in 18-point Arial bold caps. Center the manual title beginning on line 15 using 18-point Arial bold caps. Include a brief statement of manual use, contents, and compilers of the manual beginning on line 20. Set the preface body flush left in 12-point Arial.

3. Table of Contents

Prepare the Table of Contents in accordance with Attachment 3. List headings through the third order (1.1.1.2). The List of Tables and List of Figures follow the Table of Contents as appropriate. Center the words TABLE OF CONTENTS on line 1 in 14-point Arial bold caps. The remaining text in the Table of Contents shall be in 12-point Arial.

Begin the chapter title on line 3. Chapter titles shall be all caps and placed flush left. Indent all subsection titles (do not use tabs) 0.35 inch and typed with initial caps. Align runover lines left with text. Set the page numbers flush right at the margin with dot leaders.

Use double spacing between first-order and second-order headings and between second-order headings. Single space between second-order and third-order headings of the same section. Use triple spacing between the Table of Contents, List of Tables, and List of Figures.

4. List of Tables

Center the words LIST OF TABLES on the third line after the last line of the table of contents. Use 14-point Arial bold caps. List all numbered tables using 12-point Arial initial caps. Set the page numbers flush right at the margin with dot leaders.

5. List of Figures

Center the words LIST OF FIGURES on the third line after the last line of the list of tables in 14-point Arial bold caps. If there are no tables, place the List of Figures on the third line after the last line of the Table of Contents. List all numbered figures using 12-point Arial initial caps. Do not use page numbers with figures.

b. Chapters

Sequentially number chapters throughout the publication using Arabic numerals. Begin each chapter on an odd-numbered page.

1. Text

Left justify text shall using single-column (storybook) form. Set the spacing between lines at 1.1 lines. Use two times the basic spacing for interparagraph spacing and spacing into all headings. Use 12-point Arial for text. Refer to Attachment 4.

2. Chapter and Section Heading

- a. Chapter headings stand alone, are all caps, boldface type, and left justified.
- b. Section headings stand alone, are initial caps, boldface type, and left justified.
- c. Subheadings stand alone, are initial caps, boldface type, and left justified.
- d. For all headings, place an indent between the heading number and the heading text.

### 3. Listings and Procedural Steps

Where necessary, list various short items that are not complete sentences and display them within a paragraph as indented listings (see Attachment 4). These listings shall be considered as a part of the lead in sentence, unnumbered, and punctuated accordingly. Indent listings that are complete sentences but precede them with a bullet or Arabic numeral. Always precede procedural steps with Arabic numerals. All runover lines shall be indented and aligned left under text.

### 4. Equations

Use the Microsoft Equation tool to create equations using the default font in the Microsoft Equation tool. Align equations left. Align runover lines on the first character to the right of the equal sign. Align sequential equations on the equal sign. Equations are considered to be text and are punctuated accordingly. Place connecting text flush left on a new line. Define all variables. The following are examples of equations:

$$Q = mc_p \Delta T$$

$$F_{\Delta H}^N$$

$$CHF = \frac{\textit{the heat flux required to reach DNB}}{\textit{the actual local heat flux}}$$

### 5. Tables

Use the Word Table tool to create tables. Refer to Attachment 5. Number tables consecutively within chapters. All tables shall be at the end of the chapter or appendix to which they apply and shall precede the figures. Whenever possible, tables shall be vertical on a page. Center tables on the page. Table titles shall be at the top of the table typed in 12-point Arial bold initial caps. Tables are lined as necessary to be readable.

### 6. Figures

Place figures at the end of each chapter, immediately following any tables. Figures shall be full page. Place figure numbers and titles at the bottom of the figure using 10-point Arial initial caps.

### c. Appendices

Appendices appear after the last chapter of text. Give appendices letter designations (A, B, etc.) in alphabetical order. Begin each appendix on an odd-numbered page. Use the same format and style as for chapters.

- d. Instructor Guides and Lesson Plans use the format shown in Attachment 6.
- e. PowerPoint presentations use the format shown in Attachment 7.

### 3. Editorial Style Requirements

Adhere to the requirements and guidance in NUREG-0544, *NRC Collection of Abbreviations*, NUREG-1379, *NRC Editorial Style Guide*, and the *U.S. Government Printing Office Style Manual* except as indicated below. Deviations from these documents are only appropriate to ensure consistency and clarity in training materials.

#### a. Abbreviations

1. The term abbreviation includes abbreviations (e.g.  $K_{eff}$ ), acronyms (e.g. LOCA), and initialisms (SGTR).
2. Use abbreviations according to NUREG-0544, *NRC Collection of Abbreviations* noting the exceptions shown in Section E.4.
3. When a term is used several times within a chapter, spell the term out the first time its abbreviation is used with the abbreviation following in parentheses: i.e., effective multiplication factor ( $K_{eff}$ ). When the abbreviation is an acronym or initialism, the term shall be spelled out in initial caps with the acronym or initialism following in parentheses: Loss of Coolant Accident (LOCA), Steam Generator Tube Rupture (SGTR).

#### b. Capitalization

1. Terms use lowercase except as noted below. Abbreviations use uppercase, unless otherwise noted in Section E.4.
2. Specific parts of a nuclear system or facility are only capitalized whenever they appear at the beginning of a chapter or section and include the acronym or initialism following in parentheses: Closed Cooling Water System (CCW). Throughout the rest of the chapter or section, either the acronym or the term spelled out in lower case letters shall be used.
3. Generic terms designating equipment, systems, or programs are not capitalized: centrifugal charging pump (CCP); preventive maintenance program (PM).
4. Capitalize a common noun followed by a letter or number that refers to a specific publication, class figure, or table, except for page or paragraph: Category I, Appendix K, Chapter 3, Class 1E, Table 4, Figure 5.1-6, Section 4.1, but note paragraph 3 on page 56.
5. Do not capitalize a common noun followed by a number or letter identifying a component of a nuclear power plant: train A, valve MS-10; pump B

#### c. Hyphenation

Terms are generally not hyphenated: loss of coolant accident (LOCA); loss of offsite power (LOOP); electrohydraulic control (EHC). This deviates from the NUREGs cited above.

## d. Plurals

Plurals of terms are formed by adding a lowercase s without an apostrophe: design basis accidents (DBAs); pressurized water reactors (PWRs).

## e. Units of Measure

1. Refer to Section E.4 for the specific format required for commonly used units of measure. Note that units of measure are usually lowercase.
2. The first time a unit of measure is used in a chapter, the term shall be spelled out with the abbreviation following in parentheses:

*200 revolutions per minute (rpm).*

Subsequent uses of the term with a number and within the same chapter shall be the abbreviation.

3. The degree symbol can be found on the symbol list or made using the keystrokes Alt-2-4-8 (the 2-4-8 keys are using the number pad not the top row of number keys), and looks like:

°F, °C

There is no space between the degree symbol and the temperature scale abbreviation.

## f. Subscripts and Superscripts

Subscripts and superscripts are used as indicated in the list of abbreviations and terms in Section E.4. Terms such as  $T_{avg}$ ,  $T_{ref}$ ,  $K_{eff}$ ,  $T_{hot}$ ,  $T_{cold}$ ,  $T_h$ , and  $T_c$  include subscripts as shown.

4. Abbreviations and Terms

Refer to NUREG-0544 for guidance on abbreviations and acronyms not listed below.

Abbreviations and acronyms adhere to the following format, including spelling, capitalization, punctuation, and style.

A  
 ABB/CE - Asea Brown Boveri/Combustion Engineering  
 AE - architect-engineer

B  
 BRS - boron recovery system

C  
 CARS - containment air recirculation system

D  
 dp - differential pressure  
 DPSC - Diamond Power Specialty Corporation

E

ET	- instrument error
eV	- electronvolt
<u>G</u>	
Gen	- generator
gpm	- gallon(s) per minute
<u>H</u>	
hp	- horsepower
<u>I</u>	
I/P	- current to pneumatic
<u>K</u>	
KE	- kinetic energy
kVA	- kilovoltampere
kW	- kilowatt
<u>M</u>	
mA	- milliampere
MWg	- megawatt(s) generated
<u>O</u>	
O/I	- optical isolator
<u>P</u>	
pF	- picofarad
PID	- proportional plus integral plus derivative
ppb	- part(s) per billion
psi	- pounds per square inch
psia	- pounds per square inch absolute
psid	- pounds per square inch differential
psig	- pounds per square inch gage
Pzr	- Pressurizer
<u>R</u>	
rpm	- revolution(s) per minute
Rx	- reactor
<u>T</u>	
$T_{avg}$	- average temperature
$T_c$	- cold-leg temperature
$T_h$	- hot-leg temperature
$T_{sat}$	- saturated temperature
TT-4	- Turbotrol-4
<u>V</u>	
V	- Volt
$\Delta P$	- differential pressure
$\Delta T$	- temperature difference (differential temperature)

In general, abbreviations and acronyms that are formed simply as the first letter of each word of a term are not included in the list.

**F. Contact**

This OP is maintained by the Chief, Reactor Technology Training (PWR) Branch.

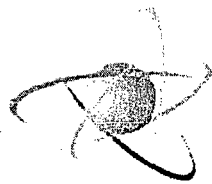
**G. References**

NUREG-0544, *NRC Collection of Abbreviations, Rev. 4*  
NUREG-1379, *NRC Editorial Style Guide*  
U.S. Government Printing Office Style Manual

**H. Attachments**

1. Attachment 1 - Manual Cover
2. Attachment 2 - Preface
3. Attachment 3 - Table of Contents
4. Attachment 4 - Chapter Layout
5. Attachment 5 - Table Layout
6. Attachment 6 - Lesson Plan Layout
7. Attachment 7 - Power Point Layout

Attachment 1  
Manual Cover



**U.S. NRC**

United States Nuclear Regulatory Commission

*Protecting People and the Environment*

**WESTINGHOUSE  
TECHNOLOGY MANUAL**

mm/dd/yy







**Attachment 2  
Preface****UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
HUMAN RESOURCES TRAINING & DEVELOPMENT****COURSE MANUAL TITLE (R-XXXT)**

This manual is a text and reference document for the [Name of Course]. It should be used by students as a study guide during attendance at this course. This manual was compiled by staff members from Human Resources Training & Development in the Office of Human Resources.

The information in this manual was developed or compiled for NRC personnel in support of internal training and qualification programs. No assumptions should be made as to its applicability for any other purpose. Information or statements contained in this manual should not be interpreted as setting official NRC policy. The data provided are not necessarily specific to any particular nuclear power plant, but can be considered to be representative of the vendor design.

**Attachment 3  
Table of Contents**

**TABLE OF CONTENTS**

XX.X	CHAPTER TITLE		
	XX.X.X Section Title .....		XX.X-1
	XX.X.X Section Title .....		XX.X-3
	XX.X.X.X Subtitle .....		XX.X-3
	XX.X.X.X Subtitle .....		XX.X-4
	XX.X.X.X Subtitle .....		XX.X-4
	XX.X.X Section Title .....		XX.X-5
	XX.X.X.X Subtitle .....		XX.X-5
	XX.X.X.X Subtitle .....		XX.X-5

**LIST OF TABLES**

XX.X-1	Title of Table .....	XX.X-7
XX.X-2	Title of Table .....	XX.X-9

**LIST OF FIGURES**

XX.X-1	Title of Figure
XX.X-2	Title of Figure
XX.X-3	Title of Figure

## Attachment 4 Chapter Layout

### 5.3 AUXILIARY FEEDWATER SYSTEM

#### Learning Objectives:

1. State the purposes of the Auxiliary Feedwater System.
2. Describe the decay heat removal flowpath following a reactor trip under the following conditions:
  - a. With off-site power available and
  - b. Without off-site power available.
3. List the suction sources for the auxiliary feedwater pumps and under what conditions each suction source is used.

#### 5.3.1 Section Heading

Headings are left justified. Chapter headings are in all caps and in bold. Section headings are in initial caps and bold.

Body text paragraphs are left justified.

Double spacing is used between paragraphs. Double spacing shall lead into the next heading.

#### 5.3.2 Lists

Text may include bulleted lists, which shall only be punctuated if they are a complete sentence.

- First item
- Second item with a runover line which should be aligned left under the text by using the paragraph indent function or tabbing any line other than the first line of the text
- Third item

The following is an example of a bulleted list that is complete sentences.

- The diesel starts.
- The output breaker closes in on the dead bus.
- The loads sequence on.

Double spacing should always precede and follow a list.

#### 5.3.2.1 Subheading

**Attachment 4 (cont.)**

Subheadings are left justified, in initial caps, and in bold. Subheadings are not underlined. Any headings required within a subheaded section are *not* numbered, but are left justified and in bold. Non-numbered headings are not included in the Table of Contents.

**Non-numbered Subheading**

Tabs are made using the tab key. Indents are made using the Format, Paragraph command or by tabbing any line in the paragraph except the first line. Bullets are inserted by using the Insert, Symbol command. The degree symbol (°) can also be found on the symbol list or can be inserted using the Alt-2-4-8 keys (using the number pad not the normal number keys).

Margins are set at 1.0 in. for the left margin, 1.0 in. for the right margin, and at 0.5 in. for the top and bottom margin. The text is set up for two-sided printing, and therefore, mirror margins must be selected in the page setup under multiple pages.

Tabs are set to repeat every 0.35 in. Spacing between lines is set at 1.1 spaces.

**Attachment 5  
Table Layout**

**Table XX.X-1 Table Title**

Column 1	Column 2	Column 3
1. Tables are created using the Tables and Borders tool.	5. Column headings shall be initial caps and in bold. Column headings can be centered or left justified, whichever looks better.	9. Using the bullet or number list will automatically put an indent between the item number and the text.  10. Example of a new entry in the same cell.
2. Select number of rows and columns.	6. Lines between columns and rows can be changed or eliminated. This is done using the borders function.	
3. Under Table Properties, adjust the cell borders to 0.05" for the entire table.	7. The basic format of this table shall be used in the majority of cases. However, small adjustments may be made for readability.	
4. Column entries shall be aligned left with double spaces between entries or each entry shall be in a new cell. Text shall be in Arial, no smaller than 10 point.	8. Column width and row height can be varied using the appropriate selections under the Table function.	

**Attachment 6  
Lesson Plan Layout**

WESTINGHOUSE TECHNOLOGY LESSON PLAN		
Lesson No.: R104P-3.2	Title: Reactor Coolant System	Pg. X of Y
Written By: _____	Approved By: _____	Date: mm/yy

**1.0 Special Instructions and Training Aids**

- 1.1 This module will cover the design and operation of the RCS as described in Chapter 3.2 of the Westinghouse PWR Technology Manual. Reactor coolant pump seals should be introduced in this lecture, but will be covered in detail in CVCS. Steam generator flow paths are covered in this module; details of steam generator operation are covered in the Secondary Systems lectures.
- 1.2 PowerPoints, viewgraphs, and pass around components.
- 1.3 Slides if time permits of various RCS components.
- 1.4 Quizdom practice questions.

**2.0 References**

- 2.1 PWR Technology Manual, Chapter 3.2
- 2.2 Callaway FSAR.
- 2.3 Callaway/Wolf Creek Drawings
- 2.4 Westinghouse Training Manual, NPS-215
- 2.5 Westinghouse Reactor Coolant Pump Training Manual

**Attachment 6 (cont.)**

WESTINGHOUSE TECHNOLOGY LESSON PLAN		
Lesson No.: R104P-3.2	Title: Reactor Coolant System	Pg. X of Y
Written By: _____	Approved By: _____	Date: mm/yy

**3.0 Objectives**

- 3.1 State the purposes of the reactor coolant system.
- 3.2 List in flow path order and state the purpose of the following major components of the reactor coolant system:
  - a. Reactor vessel,
  - b. Steam generators, and
  - c. Reactor coolant pumps.
- 3.3 Describe the flow path through the steam generator for both the reactor coolant system and the steam side.
- 3.4 State the purpose of the following components of the reactor coolant pump:
  - a. Thermal barrier heat exchanger,
  - b. Shaft seal package,
  - c. Flywheel, and
  - d. Anti-reverse rotation device.
- 3.5 State the purpose of the pressurizer and the following associated components:
  - a. Code safety valves,
  - b. Power operated relief valves,
  - c. Power operated relief valves' block valves,
  - d. Pressurizer relief tank,
  - e. Pressurizer spray valves, and
  - f. Pressurizer heaters.

**Attachment 6 (cont.)**

WESTINGHOUSE TECHNOLOGY LESSON PLAN		
Lesson No.: R104P-3.2	Title: Reactor Coolant System	Pg. X of Y
Written By: _____	Approved By: _____	Date: mm/yy

Figure 3.2-1  
Table 3.2-1

Figure 3.2-2

4.0 Presentation

4.1 Purposes of RCS

- a. Transfer heat from the reactor core to the steam generators
- b. Second barrier to the release of fission products
- c. Moderator to slow down fission neutrons to thermal energy
- d. Neutron reflector

4.2 System Description

- a. RCS is located in the containment building and consists of four loop connected in parallel with each loop containing:
  - 1. Steam generator
  - 2. Reactor coolant pump
  - 3. Piping with a hot leg, an intermediate leg, and a cold leg
- b. One pressurizer connected to one hot leg via a surge line
- c. General RCS flow path:
  - 1. Hot coolant leaves reactor vessel
  - 2. Travels through 29" hot leg to inlet to steam generator
  - 3. Through U-tubes of steam generator to outlet nozzle
  - 4. From outlet nozzle through intermediate leg (31")
  - 5. To suction side of the RCP
  - 6. From discharge of RCP through cold leg (27½") to inlet of reactor vessel



**Attachment 6 (cont.)**

WESTINGHOUSE TECHNOLOGY LESSON PLAN		
Lesson No.: R104P-3.2	Title: Reactor Coolant System	Pg. X of Y
Written By: _____	Approved By: _____	Date: mm/yy

Figure 3.2-7

d. Detailed loop description (figure shows how many loops have penetrations):

1. Hot Leg

- Sample taps to check RCS chemistry
- Combined injection point for RHR and SI on hot leg recirculation
- Pressurizer surge line to communicate pressure changes or temperature changes
- RHR suction lines for decay heat removal
- Wide range RTDs with a range of 0°F to 700°F used for indication
- Narrow range RTDs with a range of 530°F to 650°F used for indication, control, and protection


2. Intermediate Leg

- Elbow flow taps to measure RCS flow
- Supply to CVCS normal and excess letdown
- Low point loop drain

3. Cold Leg


- Wide range RTDs with a range of 0°F to 700°F used for indication
- Narrow range RTDs with a range of 510°F to 630°F used for indication, control, and protection
- Supply to PZR spray valves
- Combined injection point for RHR, SI and cold leg accumulators
- Injection point for high head injection
- Normal and alternate charging connections

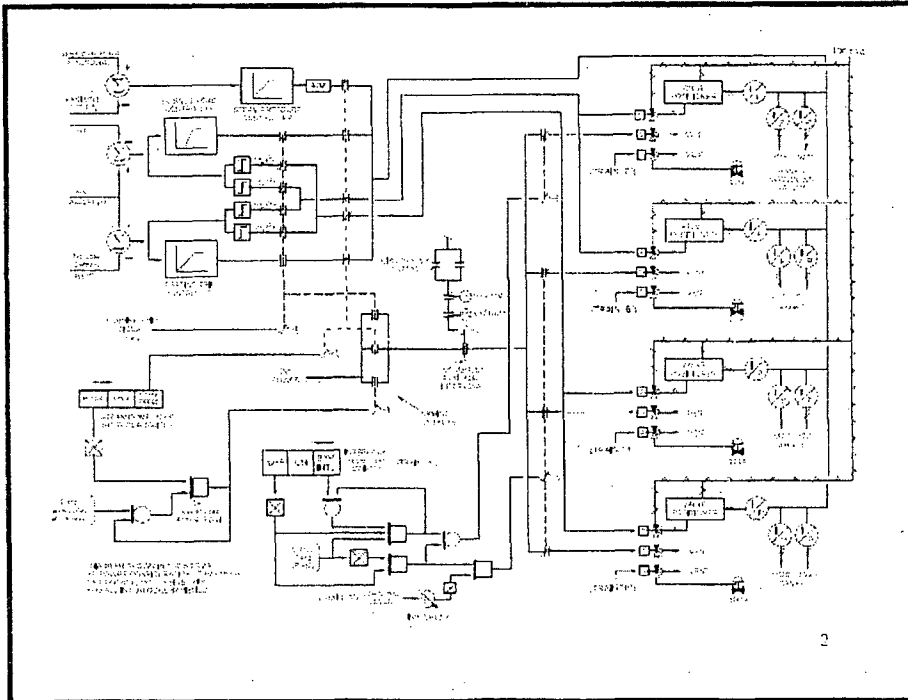
**Attachment 7  
Power Point Layout**

  
U.S.NRC  
United States Nuclear Regulatory Commission  
*Protecting People and the Environment*

**STEAM DUMP CONTROL  
SYSTEM**

Section 11.2

  
HRTD  
Human Resources  
Training & Development





**SUPPLEMENTAL INVOICING INFORMATION**

If desired, this order (or a copy thereof) may be used by the Contractor as the Contractor's invoice, instead of a separate invoice, provided the following statement, (signed and dated) is on (or attached to) the order: "Payment is requested in the amount of \$ \_\_\_\_\_. No other invoice will be submitted." However, if the Contractor wishes to submit an invoice, the following information must be provided: contract number (if any), order number, item number(s), description of supplies or service, sizes, quantities, unit prices, and extended totals. Prepaid shipping costs will be indicated as a separate item on the invoice. Where shipping costs exceed \$10 (except for parcel post), the billing must be supported by a bill of lading or receipt. When several orders are invoiced to an ordering activity during the same billing period, consolidated periodic billings are encouraged.

**RECEIVING REPORT**

Quantity in the "Quantity Accepted" column on the face of this order has been:  inspected,  accepted,  received by me and conforms to contract. Items listed below have been rejected for the reasons indicated.

SHIPMENT NUMBER	PARTIAL FINAL		DATE RECEIVED	SIGNATURE OF AUTHORIZED U.S. GOV'T REP.	DATE
TOTAL CONTAINERS	GROSS WEIGHT	RECEIVED AT	TITLE		

**REPORT OF REJECTIONS**

ITEM NO.	SUPPLIES OR SERVICES	UNIT	QUANTITY REJECTED	REASON FOR REJECTION

**BILLING INSTRUCTIONS FOR  
FIXED PRICE CONTRACTS (JUNE 2008)**

**General:** During performance and through final payment of this contract, the contractor is responsible for the accuracy and completeness of data within the Central Contractor Registration (CCR) database and for any liability resulting from the Government's reliance on inaccurate or incomplete CCR data.

The contractor shall prepare vouchers/invoices as prescribed herein. **FAILURE TO SUBMIT VOUCHERS/INVOICES IN ACCORDANCE WITH THESE INSTRUCTIONS WILL RESULT IN REJECTION OF THE VOUCHER/INVOICE AS IMPROPER.**

**Form:** Claims shall be submitted on the payee's letterhead, voucher/invoice, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other than Personal," and Standard Form 1035, "Public Voucher for Purchases Other than Personal--Continuation Sheet."

**Number of Copies:** A signed original shall be submitted. If the voucher/invoice includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original is also required.

**Designated Agency Billing Office:** The preferred method of submitting vouchers/invoices is electronically to the Department of the Interior at [NRCPayments@nbc.gov](mailto:NRCPayments@nbc.gov)

If the voucher/invoice includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original shall be electronically sent to: [Property@nrc.gov](mailto:Property@nrc.gov)

However, if you submit a hard-copy of the voucher/invoice, it shall be submitted to the following address:

Department of the Interior  
National Business Center  
Attn: Fiscal Services Branch - D2770  
7301 West Mansfield Avenue  
Denver, CO 80235-2230

If you submit a hard-copy of the voucher/invoice and it includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original shall be mailed to the following address:

U.S. Nuclear Regulatory Commission  
NRC Property Management Officer  
Mail Stop: O-4D15  
Washington, DC 20555-0001

**HAND-CARRIED SUBMISSIONS WILL NOT BE ACCEPTED**

**BILLING INSTRUCTIONS FOR  
FIXED PRICE CONTRACTS (JUNE 2008)**

**Agency Payment Office:** Payment will continue to be made by the office designated in the contract in Block 12 of the Standard Form 26, Block 25 of the Standard Form 33, or Block 18a. of the Standard Form 1449, whichever is applicable.

**Frequency:** The contractor shall submit a voucher/invoice only after the NRC's final acceptance of services rendered or products delivered in performance of the contract unless otherwise specified in the contract.

**Preparation and Itemization of the Voucher/Invoice:** The voucher/invoice shall be prepared in ink or by typewriter (without strike-overs). Corrections or erasures must be initialed. To be considered a proper voucher/invoice, all of the following elements must be included:

1. Contractor's Data Universal Number (DUNS) or DUNS+4 number that identifies the contractor's name and address. The DUNS+4 number is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the contractor to identify alternative Electronic Funds Transfer (EFT) accounts for the same parent concern.
2. Contract number.
3. Sequential voucher/invoice number.
4. Date of voucher/invoice.
5. Payee's name and address. Show the name of the Payee as it appears in the contract and its correct address. If the Payee assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Payee shall require as a condition of any such assignment, that the assignee shall register separately in the Central Contractor Registration (CCR) database at <http://www.ccr.gov> and shall be paid by EFT in accordance with the terms of this contract. See Federal Acquisition Regulation 52.232-33(g) Payment by Electronic Funds Transfer - Central Contractor Registration (October 2003).
6. A description of articles or services, quantity, unit price, and total amount.
7. For contractor acquired property, list each item with an initial acquisition cost of \$50,000 or more and provide: (1) an item description, (2) manufacturer, (3) model number, (4) serial number, (5) acquisition cost, (6) date of purchase, and (7) a copy of the purchasing document.
8. Weight and zone of shipment, if shipped by parcel post.
9. Charges for freight or express shipments. Attach prepaid bill if shipped by freight or express.
10. Instructions to consignee to notify the Contracting Officer of receipt of shipment.

**BILLING INSTRUCTIONS FOR  
FIXED PRICE CONTRACTS (JUNE 2008)**

11. For Indefinite Delivery contracts or contracts under which progress payments are authorized, the final voucher/invoice 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 and payments will be made in that currency. However, the U.S. dollar equivalent for all vouchers/invoices paid under the contract may not exceed the total U.S. dollars authorized in the contract.

**Supersession:** These instructions supersede any previous billing instructions.

R:\txtselden\billing instructions FP revised 2008

## **Subpart 2009.5 Organizational Conflicts of Interest**

### **§2009.500 Scope of subpart.**

In accordance with 42 U.S.C. 2210a., NRC acquisitions are processed in accordance with §2009.570, which takes precedence over FAR 9.5 with respect to organizational conflicts of interest. Where non-conflicting guidance appears in FAR 9.5, that guidance must be followed.

### **§2009.570 NRC organizational conflicts of interest.**

#### **§2009.570-1 Scope of policy.**

(a) It is the policy of NRC to avoid, eliminate, or neutralize contractor organizational conflicts of interest. The NRC achieves this objective by requiring all prospective contractors to submit information describing relationships, if any, with organizations or persons (including those regulated by the NRC) which may give rise to actual or potential conflicts of interest in the event of contract award.

(b) Contractor conflict of interest determinations cannot be made automatically or routinely. The application of sound judgment on virtually a case-by-case basis is necessary if the policy is to be applied to satisfy the overall public interest. It is not possible to prescribe in advance a specific method or set of criteria which would serve to identify and resolve all of the contractor conflict of interest situations that might arise. However, examples are provided in these regulations to guide application of this policy guidance. The ultimate test is as follows: Might the contractor, if awarded the contract, be placed in a position where its judgment may be biased, or where it may have an unfair competitive advantage?

(c) The conflict of interest rule contained in this subpart applies to contractors and offerors only. Individuals or firms who have other relationships with the NRC (e.g., parties to a licensing proceeding) are not covered by this regulation. This rule does not apply to the acquisition of consulting services through the personnel appointment process, NRC agreements with other Government agencies, international organizations, or state, local, or foreign Governments. Separate procedures for avoiding conflicts of interest will be employed in these agreements, as appropriate.

#### **§2009.570-2 Definitions.**

Affiliates means business concerns which are affiliates of each other when either directly or indirectly one concern or individual controls or has the power to control another, or when a third party controls or has the power to control both.

Contract means any contractual agreement or other arrangement with the NRC except as provided in §2009.570-1(c).



Contractor means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, affiliates thereof, or their successors in interest, including their chief executives, directors, key personnel (identified in the contract), proposed consultants or subcontractors, which are a party to a contract with the NRC.

Evaluation activities means any effort involving the appraisal of a technology, process, product, or policy.

Offeror or prospective contractor means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, or their affiliates or successors in interest, including their chief executives, directors, key personnel, proposed consultants, or subcontractors, submitting a bid or proposal, solicited or unsolicited, to the NRC to obtain a contract.

Organizational conflicts of interest means that a relationship exists whereby a contractor or prospective contractor has present or planned interests related to the work to be performed under an NRC contract which:

- (1) May diminish its capacity to give impartial, technically sound, objective assistance and advice, or may otherwise result in a biased work product; or
- (2) May result in its being given an unfair competitive advantage.

Potential conflict of interest means that a factual situation exists that suggests that an actual conflict of interest may arise from award of a proposed contract. The term potential conflict of interest is used to signify those situations that

- (1) Merit investigation before contract award to ascertain whether award would give rise to an actual conflict; or
- (2) Must be reported to the contracting officer for investigation if they arise during contract performance.

Research means any scientific or technical work involving theoretical analysis, exploration, or experimentation.

Subcontractor means any subcontractor of any tier who performs work under a contract with the NRC except subcontracts for supplies and subcontracts in amounts not exceeding \$10,000.

Technical consulting and management support services means internal assistance to a component of the NRC in the formulation or administration of its programs, projects, or policies which normally require that the contractor be given access to proprietary information or to information that has not been made available to the public. These services typically include assistance in the preparation of program plans, preliminary designs, specifications, or statements of work.

**§2009.570-3 Criteria for recognizing contractor organizational conflicts of interest.**

## (a) General.

(1) Two questions will be asked in determining whether actual or potential organizational conflicts of interest exist:

(i) Are there conflicting roles which might bias an offeror's or contractor's judgment in relation to its work for the NRC?

(ii) May the offeror or contractor be given an unfair competitive advantage based on the performance of the contract?

(2) NRC's ultimate determination that organizational conflicts of interest exist will be made in light of common sense and good business judgment based upon the relevant facts. While it is difficult to identify and to prescribe in advance a specific method for avoiding all of the various situations or relationships that might involve potential organizational conflicts of interest, NRC personnel will pay particular attention to proposed contractual requirements that call for the rendering of advice, consultation or evaluation activities, or similar activities that directly lay the groundwork for the NRC's decisions on regulatory activities, future procurements, and research programs. Any work performed at an applicant or licensee site will also be closely scrutinized by the NRC staff.

(b) Situations or relationships. The following situations or relationships may give rise to organizational conflicts of interest:

(1) The offeror or contractor shall disclose information that may give rise to organizational conflicts of interest under the following circumstances. The information may include the scope of work or specification for the requirement being performed, the period of performance, and the name and telephone number for a point of contact at the organization knowledgeable about the commercial contract.

(i) Where the offeror or contractor provides advice and recommendations to the NRC in the same technical area where it is also providing consulting assistance to any organization regulated by the NRC.

(ii) Where the offeror or contractor provides advice to the NRC on the same or similar matter on which it is also providing assistance to any organization regulated by the NRC.

(iii) Where the offeror or contractor evaluates its own products or services, or has been substantially involved in the development or marketing of the products or services of another entity.

(iv) Where the award of a contract would result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC, or would result in an unfair competitive advantage for the offeror or contractor.

(v) Where the offeror or contractor solicits or performs work at an applicant or licensee site while performing work in the same technical area for the NRC at the same site.

(2) The contracting officer may request specific information from an offeror or contractor or may require special contract clauses such as provided in §2009.570-5(b) in the following circumstances:

(i) Where the offeror or contractor prepares specifications that are to be used in competitive procurements of products or services covered by the specifications.

(ii) Where the offeror or contractor prepares plans for specific approaches or methodologies that are to be incorporated into competitive procurements using the approaches or methodologies.

(iii) Where the offeror or contractor is granted access to information not available to the public concerning NRC plans, policies, or programs that could form the basis for a later procurement action.

(iv) Where the offeror or contractor is granted access to proprietary information of its competitors.

(v) Where the award of a contract might result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC or might result in an unfair competitive advantage for the offeror or contractor.

(c) Policy application guidance. The following examples are illustrative only and are not intended to identify and resolve all contractor organizational conflict of interest situations.

(1)(i) Example. The ABC Corp., in response to a Request For Proposal (RFP), proposes to undertake certain analyses of a reactor component as called for in the RFP. The ABC Corp. is one of several companies considered to be technically well qualified. In response to the inquiry in the RFP, the ABC Corp. advises that it is currently performing similar analyses for the reactor manufacturer.

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

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

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

(3)(i) Example. The ABC Corp., in response to a competitive RFP, submits a proposal to assist the NRC in revising NRC's guidance documents on the respiratory protection requirements of 10 CFR Part 20. ABC Corp. is the only firm determined to be technically acceptable. ABC Corp. has performed substantial work for regulated utilities in the past and is expected to continue similar efforts in the future. The work has and will cover the writing, implementation, and administration of compliance respiratory protection programs for nuclear power plants.

(ii) Guidance. This situation would place the firm in a role where its judgment could be biased in relationship to its work for the NRC. Because the nature of the required work is vitally important in terms of the NRC's responsibilities and no reasonable alternative exists, a waiver of the policy, in accordance with §2009.570-9 may be warranted. Any waiver must be fully documented in accordance with the waiver provisions of this policy with particular attention to the establishment of protective mechanisms to guard against bias.

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

(ii) Guidance. A contract could be awarded to the ABC Corp. if the contract stipulates that no information produced under the contract will be used in the contractor's private activities unless this information has been reported to the NRC. Data on how the reactor component performs, which is reported to the NRC by contractors, will normally be disseminated by the NRC to others to preclude an unfair competitive advantage. When the NRC furnishes information about the reactor component to the contractor for the performance of contracted work, the information may not be used in the contractor's

private activities unless the information is generally available to others. Further, the contract will stipulate that the contractor will inform the NRC contracting officer of all situations in which the information, developed about the performance of the reactor component under the contract, is proposed to be used.

(5)(i) Example. The ABC Corp., in response to a RFP, proposes to assemble a map showing certain seismological features of the Appalachian fold belt. In accordance with the representation in the RFP and §2009.570-3(b)(1)(i), ABC Corp. informs the NRC that it is presently doing seismological studies for several utilities in the eastern United States, but none of the sites are within the geographic area contemplated by the NRC study.

(ii) Guidance. The contracting officer would normally conclude that award of a contract would not place ABC Corp. in a conflicting role where its judgment might be biased. Section 2052.209-72(c) Work for Others, would preclude ABC Corp. from accepting work which could create a conflict of interest during the term of the NRC contract.

(6)(i) Example. AD Division of ABC Corp., in response to a RFP, submits a proposal to assist the NRC in the safety and environmental review of applications for licenses for the construction, operation, and decommissioning of fuel cycle facilities. ABC Corp. is divided into two separate and distinct divisions, AD and BC. The BC Division performs the same or similar services for industry. The BC Division is currently providing the same or similar services required under the NRC's contract for an applicant or licensee.

(ii) Guidance. An NRC contract for that particular work would not be awarded to the ABC Corp. The AD Division could be placed in a position to pass judgment on work performed by the BC Division, which could bias its work for NRC. Further, the Conflict of Interest provisions apply to ABC Corp. and not to separate or distinct divisions within the company. If no reasonable alternative exists, a waiver of the policy could be sought in accordance with §2009.570-9.

(7)(i) Example. The ABC Corp. completes an analysis for NRC of steam generator tube leaks at one of a utility's six sites. Three months later, ABC Corp. is asked by this utility to perform the same analysis at another of its sites.

(ii) Guidance. Section 2052.290-72(c)(3) would prohibit the contractor from beginning this work for the utility until one year after completion of the NRC work at the first site.

(8)(i) Example. ABC Corp. is assisting NRC in a major on-site analysis of a utility's redesign of the common areas between its twin reactors. The contract is for two years with an estimated value of \$5 million. Near the completion of the NRC work, ABC Corp. requests authority to solicit for a \$100K contract with the same utility to transport spent fuel to a disposal site. ABC Corp. is performing no other work for the utility.

(ii) Guidance. The Contracting Officer would allow the contractor to proceed with the solicitation because it is not in the same technical area as the NRC work; and the

potential for technical bias by the contractor because of financial ties to the utility is slight due to the relative value of the two contracts.

(9)(i) Example. The ABC Corp. is constructing a turbine building and installing new turbines at a reactor site. The contract with the utility is for five years and has a total value of \$100 million. ABC Corp. has responded to an NRC Request For Proposal requiring the contractor to participate in a major team inspection unrelated to the turbine work at the same site. The estimated value of the contract is \$75K.

(ii) Guidance. An NRC contract would not normally be awarded to ABC Corp. because these factors create the potential for financial loyalty to the utility that may bias the technical judgment of the contractor.

(d) Other considerations.

(1) The fact that the NRC can identify and later avoid, eliminate, or neutralize any potential organizational conflicts arising from the performance of a contract is not relevant to a determination of the existence of conflicts prior to the award of a contract.

(2) It is not relevant that the contractor has the professional reputation of being able to resist temptations which arise from organizational conflicts of interest, or that a follow-on procurement is not involved, or that a contract is awarded on a competitive or a sole source basis.

#### **§2009.570-4 Representation.**

(a) The following procedures are designed to assist the NRC contracting officer in determining whether situations or relationships exist which may constitute organizational conflicts of interest with respect to a particular offeror or contractor. The procedures apply to small purchases meeting the criteria stated in the following paragraph (b) of this section.

(b) The organizational conflicts of interest representation provision at §2052.209-71 must be included in solicitations and contracts resulting from unsolicited proposals. The contracting officer must also include this provision for task orders and contract modifications for new work for:

(1) Evaluation services or activities;

(2) Technical consulting and management support services;

(3) Research; and

(4) Other contractual situations where special organizational conflicts of interest provisions are noted in the solicitation and would be included in the resulting contract. This representation requirement also applies to all modifications for additional effort

under the contract except those issued under the "Changes" clause. Where, however, a statement of the type required by the organizational conflicts of interest representation provisions has previously been submitted with regard to the contract being modified, only an updating of the statement is required.

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

(d) The offeror's failure to execute the representation required by paragraph (b) of this section with respect to an invitation for bids is considered to be a minor informality. The offeror will be permitted to correct the omission.

#### **§2009.570-5 Contract clauses.**

(a) General contract clause. All contracts and simplified acquisitions of the types set forth in §2009.570-4(b) must include the clause entitled, "Contractor Organizational Conflicts of Interest," set forth in §2052.209-72.

(b) Other special contract clauses. If it is determined from the nature of the proposed contract that an organizational conflict of interest exists, the contracting officer may determine that the conflict can be avoided, or, after obtaining a waiver in accordance with §2009.570-9, neutralized through the use of an appropriate special contract clause. If appropriate, the offeror may negotiate the terms and conditions of these clauses, including the extent and time period of any restriction. These clauses include but are not limited to:

(1) Hardware exclusion clauses which prohibit the acceptance of production contracts following a related non-production contract previously performed by the contractor;

(2) Software exclusion clauses;

(3) Clauses which require the contractor (and certain of its key personnel) to avoid certain organizational conflicts of interest; and

(4) Clauses which provide for protection of confidential data and guard against its unauthorized use.

#### **§2009.570-6 Evaluation, findings, and contract award.**

The contracting officer shall evaluate all relevant facts submitted by an offeror and other relevant information. After evaluating this information against the criteria of §2009.570-

3, the contracting officer shall make a finding of whether organizational conflicts of interest exist with respect to a particular offeror. If it has been determined that real or potential conflicts of interest exist, the contracting officer shall:

- (a) Disqualify the offeror from award;
- (b) Avoid or eliminate such conflicts by appropriate measures; or
- (c) Award the contract under the waiver provision of §2009.570-9.

**§2009.570-7 Conflicts identified after award.**

If potential organizational conflicts of interest are identified after award with respect to a particular contractor and the contracting officer determines that conflicts do exist and that it would not be in the best interest of the Government to terminate the contract, as provided in the clauses required by §2009.570-5, the contracting officer shall take every reasonable action to avoid, eliminate, or, after obtaining a waiver in accordance with §2009.570-9, neutralize the effects of the identified conflict.

**§2009.570-8 Subcontracts.**

The contracting officer shall require offerors and contractors to submit a representation statement from all subcontractors (other than a supply subcontractor) and consultants performing services in excess of \$10,000 in accordance with §2009.570-4(b). The contracting officer shall require the contractor to include contract clauses in accordance with §2009.570-5 in consultant agreements or subcontracts involving performance of work under a prime contract.

**§2009.570-9 Waiver.**

(a) The contracting officer determines the need to seek a waiver for specific contract awards with the advice and concurrence of the program office director and legal counsel. Upon the recommendation of the Senior Procurement Executive, and after consultation with legal counsel, the Executive Director for Operations may waive the policy in specific cases if he determines that it is in the best interest of the United States to do so.

(b) Waiver action is strictly limited to those situations in which:

- (1) The work to be performed under contract is vital to the NRC program;
- (2) The work cannot be satisfactorily performed except by a contractor whose interests give rise to a question of conflict of interest.
- (3) Contractual and/or technical review and surveillance methods can be employed by the NRC to neutralize the conflict.



(c) The justification and approval documents for any waivers must be placed in the NRC Public Document Room.

**§2009.570-10 Remedies.**

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