

ORDER FOR SUPPLIES OR SERVICES

IMPORTANT: Mark all packages and papers with contract and/or order numbers.


1. DATE OF ORDER 07/20/2015		2. CONTRACT NO. (If any) NRC-HQ-50-14-E-0001		6. SHIP TO: a. NAME OF CONSIGNEE ALBERT WONG	
3. ORDER NO. NRC-HQ-20-15-T-0015		4. REQUISITION/REFERENCE NO. NRR-15-0223		b. STREET ADDRESS 11555 ROCKVILLE PIKE	
5. ISSUING OFFICE (Address correspondence to) US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP 3WFN-05-C64MP ATTN JERRY PURCELL JR WASHINGTON DC 20555-0001				c. CITY ROCKVILLE	
				d. STATE MD	e. ZIP CODE 20852
7. TO: a. NAME OF CONTRACTOR S W R I				f. SHIP VIA	
b. COMPANY NAME				8. TYPE OF ORDER <input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 6220 CULEBRA RD				REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
d. CITY SAN ANTONIO		e. STATE TX	f. ZIP CODE 782385166		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OFFICE OF NUCLEAR MATERIAL	

11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					12. F.O.B. POINT
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination	14. GOVERNMENT B/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 04/30/2015	16. DISCOUNT TERMS

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	NRC-HQ-20-15-T-0015, Task Order 43 The contractor shall provide technical assistance services in accordance with the task order statement of work entitled: Technical Support to Evaluate D.C.Cook Continued ...					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
a. NAME US NUCLEAR REGULATORY COMMISSION						\$101,536.00
b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE MAILSTOP 03-E17A						\$101,536.00
c. CITY ROCKVILLE		d. STATE MD	e. ZIP CODE 20852-2738			17(i) GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature) 			23. NAME (Typed) JERRY PURCELL TITLE: CONTRACTING/ORDERING OFFICER			
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SCHEDULE - CONTINUATION

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
06/11/2015	NRC-HQ-50-14-E-0001	NRC-HQ-20-15-T-0015

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
00001	<p>License Amendment Request to Adopt Tstf-490, Revision 0 "Deletion of E Bar Definition and Revision to Reactor Coolant System Specific Activity Technical Specification," and Implement Full-Scope Alternative Source Term.</p> <p>NRC Contracting Officers Representative: Albert Wong PH: 301-415-3081 Email: Albert.Wong@nrc.gov</p> <p>NRC Alternate Contracting Officers Representative: Bernard Grenier PH: 301-415-2726 Email: Bernard.Grenier@nrc.gov</p> <p>Task Order Ceiling Amount: \$101,536.00 Task Order Obligation: \$50,000.00</p> <p>Accounting Info: 2015-X0200-FEEBASED-20-20D007-11-4-149-1128-252A Period of Performance: 07/20/2015 to 12/31/2016</p> <p>To evaluate DC Cook LAR to adopt Tstf-490 rev 0 and implement full-scope AST</p> <p>The obligated amount of award: \$50,000.00. The total for this award is shown in box 17(i).</p>				101,536.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$101,536.00

CONTRACTOR ACCEPTANCE OF TASK ORDER NRC-HQ-20-15-T-0015 (43)

Acceptance of Task Order No: NRC-HQ-20-15-T-0015(43) should be made by having an official, authorized to bind your organization, execute two copies of this document in the space provided and return one copy to the Contracting Officer. You should retain the other copy for your records.

Accepted Task Order No: NRC-HQ-20-15-T-0015(43):



Name R. B. Kalmbach

Executive Director, Contracts

Title

July 15, 2015

Date

SECTION B – TASK ORDER TERMS AND CONDITIONS

B.1 NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION

(a) The title of this project is Technical Support to Evaluate D.C. Cook License Amendment Request to Adopt Tstf-490, Revision 0 "Deletion of E Bar Definition and Revision to Reactor Coolant System Specific Activity Technical Specification," and Implement Full-Scope Alternative Source Term.

(b) Summary of work description: The Contractor shall assist the NRC with the review and evaluation of the D.C. Cook License Amendment Request (LAR) to Adopt Tstf-490, Revision 0, and Implement Full-Scope AST. The Contractor shall perform a review of the LAR, with a focus on the technical and regulatory adequacy of the methodology used, as well as agreement with NRC guidance, to support the calculation of the atmospheric dispersion factors (X/Q) used in dose assessments for the accidents listed in the LAR. This review shall include a quality assurance check of the meteorological data and conducting independent confirmatory analysis to determine the acceptability of the inputs and assumptions used by the licensee for the atmospheric dispersion modeling. The goal of the NRC Safety Evaluation is to provide the technical, safety, and legal basis for the NRC's decision regarding a LAR. In support of this goal, the Contractor shall prepare a draft Technical Evaluation Report (TER) describing their review and conclusions on the technical and regulatory adequacy of the LAR. If portions of the methodology are not shown to be technically adequate to support the conclusions expressed in the LAR, or if portions of the methodology do not agree with NRC guidance, then the Contractor shall identify these "gaps" in writing as a RAI. The NRC will issue the RAI to the licensee to address the gaps and obtain responses. The Contractor shall review responses to the RAI and use those responses to finalize the TER.

B.2 PRICE/COST SCHEDULE

<u>CLIN NO.</u>	<u>Description of Supplies/Services</u>	<u>Est Cost</u>	<u>Fixed Fee</u>	<u>CPFF</u>
0001	Technical Support to Evaluate D.C. Cook License Amendment Request to Adopt Tstf-490, Revision 0 "Deletion of E Bar Definition and Revision to Reactor Coolant System Specific Activity Technical Specification," and Implement Full-Scope Alternative Source Term.			\$101,536.00
TOTAL CEILING AMOUNT				\$101,536.00

B.3 NRCB040A CONSIDERATION AND OBLIGATION—TASK ORDERS (AUG 2011)

(a) The total estimated cost to the Government for full performance of this task order is \$101,536.00, of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] represents the fixed-fee.

(b) There shall be no adjustment in the amount of the Contractor's fixed-fee.

(c) The amount obligated by the Government with respect to this contract is [REDACTED], of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] represents the fixed-fee.

(d) This is not a fully-funded contract and FAR 52.232-20 - "Limitation of Cost" and FAR 52.232-22 "Limitation of Funds" applies.

(e) In accordance with FAR 52.216-8 - Fixed Fee, it is the policy of the NRC to withhold payment of fee after payment of [REDACTED] percent of the fee has been paid in order to protect the Government's interest. The amount of fixed-fee withheld from the contractor will not exceed [REDACTED] percent of the total fee or [REDACTED] whichever is less. Accordingly, the maximum amount of fixed-fee that may be held in reserve is [REDACTED].

B.4 TASK/DELIVERY ORDER PERIOD OF PERFORMANCE (SEP 2013)

This contract shall commence on the award date and will expire on December 31, 2016.

SECTION C - TASK ORDER STATEMENT OF WORK

1. PROJECT TITLE

Technical Support to Evaluate D.C. Cook License Amendment Request to Adopt Tstf-490, Revision 0, "Deletion of E Bar Definition and Revision to Reactor Coolant System Specific Activity Technical Specification" and Implement Full-Scope Alternative Source Term.

2. BACKGROUND

Indiana Michigan Power Company (I&M) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) for an amendment to the Technical Specifications (TS) for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2. The proposed changes would replace the current CNP Units 1 and 2 TS 3.4.16 limit on reactor coolant system (RCS) gross specific activity with a new limit on RCS noble gas specific activity. The noble gas specific activity limit would be based on a new dose equivalent Xe-133 definition that would replace the current E Bar average disintegration energy definition. In addition, the current dose equivalent I-131 definition would be revised to allow the use of additional thyroid dose conversion factors. Additionally, I&M proposes to revise the CNP Units 1 and 2 licensing basis and TS to adopt the alternative source term (AST) as allowed in 10 CFR 50.67.

The NRC will conduct a review of this license amendment, issue a Request for Additional Information (RAI) or RAIs, or clarification to the licensee, and publish a safety evaluation report. The report will be used to document the staff's results and findings regarding the acceptability of the licensee's approach.

3. SCOPE OF WORK

The Contractor shall assist the NRC with the review and evaluation of the D.C. Cook License Amendment Request (LAR) to Adopt Tstf-490, Revision 0, and Implement Full-Scope AST. The Contractor shall perform a review of the LAR, with a focus on the technical and regulatory adequacy of the methodology used, as well as agreement with NRC guidance, to support the calculation of the atmospheric dispersion factors (X/Q) used in dose assessments for the accidents listed in the LAR. This review shall include a quality assurance check of the meteorological data and conducting independent confirmatory analysis to determine the acceptability of the inputs and assumptions used by the licensee for the atmospheric dispersion modeling. The goal of the NRC Safety Evaluation is to provide the technical, safety, and legal basis for the NRC's decision regarding a LAR. In support of this goal, the Contractor shall prepare a draft Technical Evaluation Report (TER) describing their review and conclusions on the technical and regulatory adequacy of the LAR. If portions of the methodology are not shown to be technically adequate to support the conclusions expressed in the LAR, or if portions of the methodology do not agree with NRC guidance, then the Contractor shall identify these "gaps" in writing as a RAI. The NRC will issue the RAI to the licensee to address the gaps and obtain responses. The Contractor shall review responses to the RAI and use those responses to finalize the TER.

4. SPECIFIC TASKS

Task 1 Kickoff Meeting

1.a Preparation for Kickoff Meeting

Become familiar with the LAR and any references that the licensee used to reach its conclusions; as well as NRC guidance and other references that the Contractor deems necessary to support their review.

1.b Attend Kickoff Meeting

Attend a one-time kick-off meeting (via conference call) to discuss the scope of work, expectations, task order management, and performance requirements of the task order. The kick-off meeting shall be held within twenty (20) working days after the Contractor receives the LAR materials (subject to NRC staff availability). Within five (5) working days after the meeting, the Contractor shall submit a written summary of the meeting that: (1) identifies meeting participants from the Contractor and NRC; (2) conveys minutes of the meeting that clearly describe the substance of the meeting, and (3) list and describe decisions about scheduling and action. The Contracting Officer's Representative (COR) will provide any comments within 10 working days after receipt of meeting minutes.

Task 2 Review LAR Submission

2.a Evaluate the LAR Submittal

Review the LAR to determine the technical accuracy and regulatory compliance of the request. Specifically focusing on whether the methodology applied in the LAR is consistent with Regulatory Guides 1.23, 1.145, 1.194, NUREG/CR-2858 and NUREG/CR-6331. The evaluation shall include a review of: 1) the calculations and computer models for technical acceptability; 2) the associated model inputs, assumptions, methodology and conclusions for technical acceptability; and 3) the quality of the licensee's meteorological data.

As directed by the COR, participate in conference calls or public meetings with the licensee to discuss the LAR materials and any associated questions.

2.b. Perform Confirmatory Analysis

Perform an independent confirmatory analysis to evaluate the validity and conservatism of the licensee's calculations. Conduct model runs with ARCON96 to confirm atmospheric dispersion factors used in onsite Control Room habitability dose assessments, and with PAVAN to confirm atmospheric dispersion factors offsite dose calculations at the Exclusion area Boundary (EAB) and outer boundary of the Low Population Zone (LPZ). The

independent confirmatory analysis shall use other available technical models to be mutually agreed upon by the Contractor and COR. Compare the licensee's atmospheric dispersion modelling results against the results from the independent confirmatory analysis.

2.c. Prepare Preliminary Technical Evaluation Report

Prepare a preliminary TER that describes the results of the review and evaluation. The applied methodology, results, and conclusions of the independent confirmatory analysis shall be described in the preliminary TER and the analysis shall be used to justify the conclusions of the TER. The preliminary TER shall contain text, tables, and illustrations, as appropriate, suitable for inclusion in NRC staff's safety evaluation. The preliminary TER shall provide sufficient information to support the conclusions regarding the technical and regulatory adequacy of the LAR. To the extent possible, the preliminary TER shall be written so that a person with either non-nuclear technical background or non-technical background can understand the basis for conclusions cited. The preliminary TER shall identify gaps in the technical or regulatory adequacy of the LAR. The COR will provide a template that the Contractor shall use to develop the preliminary TER. The preliminary TER shall be submitted to the COR for review.

Prepare a final preliminary TER that incorporates comments provided by the COR.

2.d. Prepare RAI

Prepare a draft RAI with questions that will address the gaps identified in the technical and regulatory adequacy of the LAR. Questions included in the RAI shall have a clear and concise regulatory basis, describing why additional information is required to come to a conclusion on the adequacy of the LAR. The RAI shall be written in a format provided by the COR.

Participate in conference calls with the COR and NRC Technical Project Lead to discuss the RAI and the need for specific questions.

Participate in conference calls with the COR, NRC Technical Project Lead, and other NRC technical staff and licensee staff, as necessary, to clarify the intent of specific questions.

2.e. Review RAI Responses

Review the licensee's response to the RAI and determine whether it adequately resolves the identified gaps. Perform additional analysis as necessary.

Participate in conference calls with the COR, NRC Project Technical Lead, and other NRC technical staff and licensee staff, as necessary, to clarify information provided in the response to the RAI.

2.f. Update the TER

Update the final preliminary TER prepared under Task 2.c to incorporate licensee’s RAI response(s) and revise affected portions of the text, tables, and illustrations in the TER. The updated TER shall be submitted to the COR for review.

Prepare a final version of the updated TER that incorporates comments provided by the COR.

5. APPLICABLE DOCUMENTS AND STANDARDS

The following regulations and guidance are applicable to this task order and can be found at <http://www.nrc.gov/reading-rm/doc-collections>. Any references that aren’t available at this website will be provided by the COR.

1. 10 CFR 50.90, “Application for Amendment of License or Construction Permit”
2. 10 CFR 50.67, “Accident Source Term”
3. NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants”
4. Regulatory Guide 1.183, “Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors”
5. Regulatory Guide 1.23, “Meteorological Monitoring Programs for Nuclear Power Plants,” Revision 1
6. Regulatory Guide 1.145, “Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants,” Revision 1
7. Regulatory Guide 1.194, “Atmospheric Relative Concentrations for Control Room Radiological Habitability Assessments at Nuclear Power Plants”
8. NUREG/CR-2858, “PAVAN: An Atmospheric-Dispersion Program for Evaluating Design-Basis Accidental Releases of Radioactive Materials from Nuclear Power Stations”
9. NUREG/CR-6331, “Atmospheric Concentrations in Building Wakes”

6. DELIVERABLES AND DELIVERY SCHEDULE

Deliverable Number	Deliverable and Acceptance Criteria (AC)	Deliverable Due Date
1	Task 1.b, Kick-off Meeting Minutes AC: Meeting minutes are complete and contain required content.	NLT 5 working days after completion of kick-off meeting
2	Task 2.c, Preliminary TER	NLT 60 calendar days after award

Deliverable Number	Deliverable and Acceptance Criteria (AC)	Deliverable Due Date
	AC: Report contains the required content and follows the required format. Report clearly discusses the review performed. Report expresses justified conclusions on the technical and regulatory adequacy of the LAR.	
3	Task 2.c, Final Preliminary TER AC: All comments from the COR are addressed.	NLT 7 calendar days after receipt of NRC comments
4	Task 2.d, Draft RAI AC: Questions identify a clear regulatory basis. Questions clearly communicate the information needed in a response. Questions are technically sound. Format provided by COR is followed.	NLT 60 calendar days after award
5	Task 2.d, Final RAI AC: All comments from the COR are addressed.	NLT 7 calendar days after receipt of NRC comments
6	Task 2.f, Draft Updated TER AC: Report contains all required content in the required format and incorporates the RAI responses from the licensee.	NLT 20 calendar days after receipt of RAI response
7	Task 2.f, Final Updated TER AC: All comments from the COR are addressed.	NLT 7 calendar days after receipt of NRC comments
8	Monthly Letter Status Report (MLSR) as described below AC: MSLR is complete and contains all required information.	NLT 20 th day of the Month

All deliverables shall include the following identifying information:

Contract No.
Task Order No.
TAC No.
Licensee
Facility Name and Unit Nos.

The Contractor must provide all reports as draft products. The COR will review all draft deliverables (and coordinate any internal NRC staff review, if needed) and provide comments back to the laboratory. The Contractor must revise the draft deliverables based on the comments provided by the COR, and then deliver the final version of the deliverable. When mutually agreed upon between the Contractor and the COR, the Contractor may submit preliminary or partial drafts to help gauge the Contractor's understanding of the particular work requirement.

The above deliverables shall be provided in Microsoft Word electronically and in hard copy (upon request) to the COR and NRC Technical Project Lead.

The COR will acknowledge receipt of deliverables by e-mail.

Monthly Letter Status Report

An electronic Monthly Letter Status Report (MLSR) in a Microsoft Word file is to be submitted to the COR and Contracting Officer (CO) by the 20th of the month following the month to be reported with copies provided to the following:

Contracts ContractsPOT.Resource@nrc.gov

The MLSR shall identify the title of the project, the contract number and task order, the Principal Investigator, the period of performance, the reporting period, summarize each month's technical progress, list monthly spending, total spending to date, and the remaining funds. Any critical issues, project dependencies or technical difficulties which may affect the schedule or costs of the project shall be immediately brought to the attention of the COR and CO.

7. REQUIRED LABOR CATEGORIES (Except for Information Technology Services)

The contractor shall provide staff that have the ability to perform atmospheric dispersion analysis, atmospheric dispersion modeling, and the methods and rationale for the methodology described in Regulatory Guides 1.23, 1.145, 1.194, and NUREG/CR-2858 and NUREG/CR-6331. This expertise must also include extensive familiarity and background with all NRC regulations, criteria, or guidelines pertaining to the NRC's processes for

performing license amendment reviews, as well as, familiarity with atmospheric dispersion analysis and how such information is documented in a safety evaluation.

The Contractor shall provide a project manager to oversee the effort and ensure the timely submittal of accurate and complete deliverables.

The NRC will rely on representation made by the Contractor concerning the qualifications of the personnel assigned to this task order, including assurance that all information contained in the technical and cost proposals, including resumes, is accurate and truthful. The resume for each professional proposed to work under this task order (principal investigators, technical staff, employees, consultants, specialists or subcontractors) shall describe the individual's experience in applying his or her area of specialization to work in the proposed area. The use of particular personnel on this task order is subject to the COR and CO approval. This includes any proposed changes to key personnel during the life of the task order.

8. GOVERNMENT-FURNISHED PROPERTY/MATERIALS

A copy of the D.C. Cook LAR to Adopt Tstf-490, Revision 0, and Implement Full-Scope AST will be supplied to the Contractor by the COR.

9. PLACE OF PERFORMANCE

All work will be performed at the Contractor's site.

10. SPECIAL CONSIDERATIONS

N/A

11. TRAVEL

No travel is anticipated in the performance of this task order.

12. SECURITY

Information required for performance of this work is anticipated to be UNCLASSIFIED. Proprietary Information or other Sensitive Unclassified Non-Safeguards Information (SUNSI) may be required to complete the work.

13. KEY PERSONNEL

N/A

SECTION D - MARKING

D.1 NRCD020 BRANDING (AUG 2012)

The Contractor is required to use the statement below in any publications, presentations, articles, products, or materials funded under this contract order, to the extent practical, in order to provide NRC with recognition for its involvement in and contribution to the project. If the work performed is funded entirely with NRC funds, then the contractor must acknowledge that information in its documentation/presentation.

Work Supported by the U.S. Nuclear Regulatory Commission (NRC), Office of Nuclear Reactor Research, under Contract order number NRCD020-14-E-0001/ NRCD020-15-T-0015.

(End of Clause)

D.2 NRCD010 PACKAGING AND MARKING (AUG 2011)

(a) The Contractor shall package material for shipment to the NRC in such a manner that will ensure acceptance by common carrier and safe delivery at destination. Containers and closures shall comply with the Surface Transportation Board, Uniform Freight Classification Rules, or regulations of other carriers as applicable to the mode of transportation.

(b) On the front of the package, the Contractor shall clearly identify the contract number under which the product is being provided.

(c) Additional packaging and/or marking requirements are as follows: None.

(End of Clause)

SECTION E. INSPECTION AND ACCEPTANCE

E.1 INSPECTION AND ACCEPTANCE BY THE NRC (SEP 2013)

Inspection and acceptance of the deliverable items to be furnished hereunder shall be made by the NRC Contracting Officer's Representative (COR) at the destination, accordance with FAR 52.247-34 – F.o.b. Destination.

Contract Deliverables:

1. Kick-Off Meeting
2. Preliminary TER
3. Final Preliminary TER
4. Draft RAI
5. Final RAI
6. Draft Updated TER
7. Final Updated TER
8. Final Updated TER
9. MLSR

E.2 CONTRACTING OFFICER'S REPRESENTATIVE (COR) AUTHORITY

1. The COR for this task order is:

Albert Wong
Office: Office of Nuclear Reactor Regulation
Mailstop: OWFN/7B-1
Rockville, MD 20852
Phone: 301-415-3081
Email: Albert.Wong@nrc.gov

2. The Alternate COR for this task order is:

Bernard Grenier
E-mail address: Bernard.Grenier@nrc.gov
Telephone No: (301) 415-2726

3. Performance of the work under this task order is subject to the technical direction of the NRC COR. The term "technical direction" is defined to include the following:

- i. 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.
 - ii. Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.
 - iii. Review and, where required by the task order contract, approval of technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government under the contract.
4. Technical direction must be within the general statement of work stated in the task order. The COR does not have the authority to and may not issue any technical direction which:
 - i. Constitutes an assignment of work outside the general scope of the contract.
 - ii. Constitutes a change as defined in the "Changes" clause of this contract.
 - iii. 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.
 - iv. Changes any of the expressed terms, conditions, or specifications of the contract.
 - v. Terminates the contract, settles any claim or dispute arising under the contract, or issues any unilateral directive whatever.
5. Technical directions must be issued in writing by the COR or must be confirmed by the COR 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.
6. The contractor shall proceed promptly with the performance of technical directions duly issued by the COR in the manner prescribed by this clause and within the COR's authority under the provisions of this clause.
7. If, in the opinion of the contractor, any instruction or direction issued by the COR 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.

8. Any unauthorized commitment or direction issued by the COR 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.
9. 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.
10. In addition to providing technical direction as defined in paragraph (b) of the section, the COR shall:
 - a. Monitor the contractor's technical progress, including surveillance and assessment of performance, and recommend to the Contracting Officer changes in requirements.
 - b. Assist the contractor in the resolution of technical problems encountered during performance.
 - c. 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.
 - d. Assist the contractor in obtaining the badges for the contractor personnel.
 - e. 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.
 - f. 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.
 - g. 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.

SECTION F - CONTRACT ADMINISTRATION DATA

F.1 BILLING INSTRUCTIONS FOR COST-REIMBURSEMENT TYPE CONTRACTS (MAY 2013)

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 invoices/vouchers for reimbursement of costs in the manner and format described herein. FAILURE TO SUBMIT INVOICES/VOUCHERS IN ACCORDANCE WITH THESE INSTRUCTIONS MAY RESULT IN REJECTION OF THE INVOICE/VOUCHER AS IMPROPER.

Standard Forms: Reimbursement requests shall be submitted on the payee's letterhead, invoice/voucher, 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."

Electronic Invoice/Voucher Submissions: The preferred method of submitting invoices/vouchers is electronically to the U.S. Nuclear Regulatory Commission, via email to: NRCPayments@nrc.gov.

Hard-Copy Invoice/Voucher Submissions: If you submit a hard-copy of the invoice/voucher, a signed original and supporting documentation shall be submitted to the following address:

NRC Payments

U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mailstop O3-E17A

Rockville, MD 20852-2738

Purchase of Capital Property: (*\$50,000 or more with life of one year or longer*)

Contractors must report to the Contracting Officer, electronically, any capital property acquired with contract funds having an initial cost of \$50,000 or more, in accordance with procedures set forth in NRC Management Directive (MD) 13.1, IV, C – “Reporting Requirements” (revised 2/16/2011).

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

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

Format: Invoices/Vouchers shall be submitted in the format depicted on the attached sample form entitled "Invoice/Voucher for Purchases and Services Other Than Personal". Alternate formats are permissible only if they address all requirements of the Billing Instructions. The instructions for preparation and itemization of the invoice/voucher are included with the sample form.

Task Order Contracts: The contractor must submit a separate invoice/voucher for each individual task order with detailed cost information. This includes all applicable cost elements and other items discussed in paragraphs (a) through (s) of the attached instructions. In addition, the invoice/voucher must specify the contract number, and the NRC-assigned task/delivery order number.

Billing of Costs after Expiration of Contract: If costs are incurred during the contract period and invoiced after the contract has expired, you must cite the period during which these costs were incurred. To be considered a proper expiration invoice/voucher, the contractor shall clearly mark it "EXPIRATION INVOICE" or "EXPIRATION VOUCHER".

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

Currency: Invoices/Vouchers must be expressed in U.S. Dollars.

Supersession: These instructions supersede previous Billing Instructions for Cost-Reimbursement Type Contracts (July 2011).

F.2 NRCG030 ELECTRONIC PAYMENT (SEP 2014)

The Debt Collection Improvement Act of 1996 requires that all payments except IRS tax refunds be made by Electronic Funds Transfer. Payment shall be made in accordance with FAR 52.232-33, entitled "Payment by Electronic Funds- Central Contractor Registration".

To receive payment, the contractor shall prepare invoices in accordance with NRC's Billing Instructions. Claims shall be submitted on the payee's letterhead, 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." The preferred method of submitting invoices is electronically to the Department of the Interior at NRCPayments@nrc.gov. If the contractor submits a hard copy of the invoice, it shall be submitted to the following address:

NRC Payments

U.S. Nuclear Regulatory Commission

One White Flint North

Mailstop O3-E17A

11555 Rockville Pike

Rockville, MD 20852-2738

(End of Clause)

F.3 USE OF AUTOMATED CLEARING HOUSE (ACH) ELECTRONIC PAYMENT/REMITTANCE ADDRESS (AUG 2011)

The Debt Collection Improvement Act of 1996 requires that all Federal payments except IRS tax refunds be made by Electronic Funds Transfer. It is the policy of the Nuclear Regulatory Commission to pay government vendors by the Automated Clearing House (ACH) electronic funds transfer payment system. Item 15C of the Standard Form 33 may be disregarded.

SECTION G - List of Documents, Exhibits and Other Attachments

INVOICE/VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL (SAMPLE FORMAT - COVER SHEET)

1. Official Agency Billing Office

NRC Payments

U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mailstop O3-E17A

Rockville, MD 20852-2738

2. Invoice/Voucher Information

a. Payee's DUNS Number or DUNS+4. The Payee shall include the Payee's Data Universal Number (DUNS) or DUNS+4 number that identifies the Payee'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 Payee to identify alternative Electronic Funds Transfer (EFT) accounts for the same parent concern.

b. Taxpayer Identification Number. The Payee shall include the Payee's taxpayer identification number (TIN) used by the Internal Revenue Service (IRS) in the administration of tax laws. (See IRS Web site: [http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Employer-ID-Numbers-\(EINs\)](http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Employer-ID-Numbers-(EINs))).

c. 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 (FAR) 52.232-33(g) Payment by Electronic Funds Transfer - Central Contractor Registration (October 2003).

d. Contract Number. Insert the NRC contract number (including Enterprise-wide Contract (EWC)), GSA Federal Supply Schedule (FSS), Governmentwide Agency Contract (GWAC) number, or Multiple Agency Contract (MAC) number, as applicable.

e. Task Order Number. Insert the task/delivery order number (If Applicable). **Do not include more than one task order per invoice or the invoice may be rejected as improper.**

f. Invoice/Voucher. The appropriate sequential number of the invoice/voucher, beginning with 001 should be designated. Contractors may also include an individual internal accounting number, if desired, in addition to the 3-digit sequential number.

g. Date of Invoice/Voucher. Insert the date the invoice/voucher is prepared.

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

i. Description of Deliverables. Provide a brief description of supplies or services, quantity, unit cost, and total cost.

j. Work Completed. Provide a general summary description of the services performed or products submitted for the invoice period and specify the section or Contract Line Item Number (CLIN) or SubCLIN in the contract pertaining to the required deliverable(s).

k. Shipping. Insert weight and zone of shipment, if shipped by parcel post.

l. Charges for freight or express shipments. Attach prepaid bill if shipped by freight or express.

m. Instructions. Include instructions to consignee to notify the Contracting Officer of receipt of shipment.

n. For Indefinite Delivery contracts, the final invoice/voucher shall be marked "FINAL INVOICE" or "FINAL VOUCHER".

o. Direct Costs. Insert the amount billed for the following cost elements, adjustments, suspensions, and total amounts, for both the current billing period and for the cumulative period (from contract inception to end date of this billing period).

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

<u>Labor</u> <u>Category</u>	<u>Hours</u> <u>Billed</u>	<u>Rate</u>	<u>Total</u>	<u>Cumulative</u> <u>Hours Billed</u>
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(2) Fringe Benefits. This represents fringe benefits applicable to direct labor and billed as a direct cost. Where a rate is used indicate the rate. Fringe benefits included in direct labor or in other indirect cost pools should not be identified here.

(3) Contractor-acquired property (\$50,000 or more). List each item costing \$50,000 or more and having a life expectancy of more than one year. List only those items of equipment for which reimbursement is requested. For each such item, list the following (as applicable): (a) an item description, (b) manufacturer, (c) model number, (d) serial number, (e) acquisition cost, (f) date of purchase, and (g) a copy of the purchasing document.

(4) Contractor-acquired property (under \$50,000), Materials, and Supplies. These are equipment other than that described in (3) above, plus consumable materials and supplies. List by category. List items valued at \$1,000 or more separately. Provide the item number for each piece of equipment valued at \$1,000 or more.

(5) Premium Pay. This enumeration in excess of the basic hourly rate. (Requires written approval of the Contracting Officer.)

(6) Consultant Fee. The supporting information must include the name, hourly or daily rate of the consultant, and reference the NRC approval (if not specifically approved in the original contract).

(7) Travel. Total costs associated with each trip must be shown in the following format:

<u>Start Date</u>		<u>Destination</u>		<u>Costs</u>
From	To	From	To	\$

(Must include separate detailed costs for airfare, per diem, and other transportation expenses. All costs must be adequately supported by copies of receipts or other documentation.)

(8) Subcontracts. Include separate detailed breakdown of all costs paid to approved subcontractors during the billing period.

(9) Other Costs. List all other direct costs by cost element and dollar amount separately.

p. Indirect Costs (Overhead and General and Administrative Expense). Cite the formula (rate and base) in effect in accordance with the terms of the contract, during the time the costs were incurred and for which reimbursement is requested.

q. Fixed-Fee. If the contract provides for a fixed-fee, it must be reimbursed as indicated in the contract. Cite the formula or method of computation. Include this information as it applies to individual task orders as well.

- (1) The NRC will withhold payment of 15% of the negotiated contract fixed-fee amount, not to exceed \$100,000.
- (2) If the fee withholding amount has reached \$100,000, the contractor may resume billing the NRC for the balance of its fee under subsequent invoices for work completed.
- (3) Any fee amounts withheld by the NRC will be paid to the contractor during contract closeout in increments, following the submission/settlement of indirect rate proposals in accordance with FAR 52.216-8, "Fixed Fee" (JUN 2011).

r. Total Amount Billed. Insert columns for total amounts for the current and cumulative periods.

s. Adjustments. Insert columns for any adjustments, including outstanding suspensions for deficient or defective products or nonconforming services, for the current and cumulative periods.

t. Grand Totals.

3. Sample Invoice/Voucher Information

Sample Invoice/Voucher Information (Supporting Documentation must be attached)

This invoice/voucher represents reimbursable costs for the billing period from ____ through ____.

		<u>Amount Billed</u>	
		<u>Current Period</u>	<u>Cumulative</u>
(a)	<u>Direct Costs</u>		
	(1) Direct labor	\$ _____	\$ _____
	(2) Fringe benefits (% of direct labor)	\$ _____	\$ _____

(3)	Government property (\$50,000 or more)	\$ _____	\$ _____
(4)	Government property, Materials, and Supplies (under \$50,000 per item)	\$ _____	\$ _____
(5)	Premium pay (NRC approved overtime)	\$ _____	\$ _____
(6)	Consultants Fee	\$ _____	\$ _____
(7)	Travel	\$ _____	\$ _____
(8)	Subcontracts	\$ _____	\$ _____
(9)	Other costs	\$ _____	\$ _____
	Total Direct Costs:	\$ _____	\$ _____

(b) Indirect Costs (provide the rate information applicable to your firm)

(10)	Overhead ___% of _____ (Indicate Base)	\$ _____	\$ _____
(11)	General and Administrative (G&A) ___ % of _____ (Indicate Base)	\$ _____	\$ _____
	Total Indirect Costs:	\$ _____	\$ _____

(c) Fixed-Fee:

- (12) Fixed-Fee Calculations:
- i. Total negotiated contract fixed-fee percent ___ and amount \$ _____
 - ii. 85% allowable fee amount \$ _____

- iii. Cumulative fee billed on prior invoices \$ _____
- iv. Fee due this invoice (not to exceed 85% of fee earned based upon negotiated contract fee percentage) \$ _____

Note: The fee balance withheld by NRC may not exceed \$100,000.

	Total Fixed-Fee:	\$ _____	\$ _____
(d)	Total Amount Billed	\$ _____	\$ _____
(e)	Adjustments (+/-)	\$ _____	\$ _____
(f)	Grand Total	\$ _____	\$ _____

(The invoice/voucher format provided above must include information similar to that included below in the following to ensure accuracy and completeness.)

SAMPLE SUPPORTING INFORMATION

The budget information provided below is for format purposes only and is illustrative.

Cost Elements:

- 1) Direct Labor - \$2,400

<u>Labor</u> <u>Category</u>	<u>Hours</u> <u>Billed</u>	<u>Rate</u>	<u>Total</u>	<u>Cumulative</u> <u>Hours Billed</u>
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Senior Engineer I	100	\$14.00	\$1,400	975
Engineer	50	\$10.00	\$ 500	465
Computer Analyst	100	\$ 5.00	<u>\$ 500</u>	<u>320</u>
			\$2,400	1,760 hrs.

2) Fringe Benefits - \$480

Fringe @ 20% of Direct Salaries

Labor		Fringe
<u>Category</u>	<u>Salaries</u>	<u>Amount</u>
Senior Engineer I	\$1,400	\$280
Engineer	\$ 500	\$100
Computer Analyst	<u>\$ 500</u>	<u>\$100</u>
	\$2,400	\$480

3) Government-furnished and contractor-acquired property (\$50,000 or more) - \$60,000

Prototype Spectrometer - item number 1000-01 = \$60,000

4) Government-furnished and contractor-acquired property (under \$50,000), Materials, and Supplies - \$2,000

10 Radon tubes @ \$110.00 = \$1,100
 6 Pairs Electrostatic gloves @ \$150.00 = \$ 900
 \$2,000

5) Premium Pay - \$150

Walter Murphy - 10 hours @ \$10.00 Per Hour (Reg. Pay) = \$100 x 1.5 OT rate = \$150

(EX: Premium pay for this individual was approved and authorized under this contract by the NRC Contracting Officer by letter dated 6/1/2011.)

6) Consultants' Fee - \$100

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

7) Travel - \$2,640

(i) Airfare: (2 Roundtrip trips for 1 person @ \$300 per r/t ticket)

<u>Start Date</u>	<u>End Date</u>	<u>Days</u>	<u>From</u>	<u>To</u>	<u>Cost</u>
4/1/2011	4/7/2011	7	Philadelphia, PA	Wash, D.C.	\$300
7/1/2011	7/8/2011	8	Philadelphia, PA	Wash, D.C.	\$300

(ii) Per Diem: \$136/day x 15 days = \$2,040

8) Subcontracting - \$30,000

Company A = \$10,000

Company B = \$20,000
\$30,000

(EX: Subcontracts for Companies A & B were consented to by the Contracting Officer by letter dated 6/15/2011.)

9) Other Costs - \$5,100

Honorarium for speaker at American Nuclear Society conference = \$5,000

Nuclear Planet Journal subscription fee = \$100

10) Overhead Expense - \$41,148

Overhead @ 40% of Total Direct Costs

11) General and Administrative (G&A) Expense - \$22,784

G&A @ 20% of Total Costs, excluding subcontracts and consultants

12) Fixed-Fee - \$8,218

Fixed-Fee applied to Total Costs @ 5%

Fixed-Fee Calculations:

- i. Total contract fixed-fee \$100,000

- ii. 85% allowable fee \$85,000
- iii. Cumulative fee billed on prior invoices \$85,000
- iv. Fee due this invoice (*not to exceed 85% of fee earned based upon negotiated contract fee percentage*) \$8,218

Total Amount Billed	\$175,020
Adjustments (+/-)	- <u>\$8,218</u>
Grand Total	\$166,802