

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1 25

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

1. DATE OF ORDER 04/27/2015		2. CONTRACT NO. (If any) NRC-HQ-50-14-E-0001		6. SHIP TO: a. NAME OF CONSIGNEE EVAN DAVIDSON	
3. ORDER NO. NRC-HQ-20-15-T-0007		4. REQUISITION/REFERENCE NO. NRR-15-0128			
5. ISSUING OFFICE (Address correspondence to) US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP TWFN-5E03 ATTN LISA KAUFFMAN 301-415-8199 WASHINGTON DC 20555-0001				b. STREET ADDRESS US NUCLEAR REGULATORY COMMISSION 11555 ROCKVILLE PIKE MAIL STOP OWFN 10F4	
				c. CITY ROCKVILLE	e. ZIP CODE 20852
7. TO: a. NAME OF CONTRACTOR S W R I b. COMPANY NAME c. STREET ADDRESS 6220 CULEBRA RD				f. SHIP VIA	
d. CITY SAN ANTONIO				e. STATE TX	f. ZIP CODE 782385166
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OFF OF NUCLEAR REACTOR REGULATION	
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 <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) 1 Days After Award	
				16. DISCOUNT TERMS 30	

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-0007, Task Order 30 The Contractor shall provide services in accordance with the Statement of Work entitled Development of Standardized Regulatory Improvements Concerning the Core Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	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						\$0.00
	b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE MAILSTOP 03-E17A						\$455,262.00
c. CITY ROCKVILLE			d. STATE MD	e. ZIP CODE 20852-2738			17(i) GRAND TOTAL

22. UNITED STATES OF
AMERICA BY (Signature)

04/28/2015

23. NAME (Typed)
SHARLENE M. MCCUBBIN
TITLE: CONTRACTING/ORDERING OFFICER

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OPTIONAL FORM 347 (Rev. 2/2012)
Prescribed by GSA/FAR 48 CFR 53.213(f)

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE

APR 29 2015

ADM002

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

2

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

DATE OF ORDER

CONTRACT NO.

ORDER NO.

04/27/2015

NRC-HQ-50-14-E-0001

NRC-HQ-20-15-T-0007

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>Operating Limits Report. NRC Contracting Officers Representative: Evan Davidson, Evan.Davidson@nrc.gov, 301-415-1342.</p> <p>Task Order Obligations: \$150,000.00 Task Order Ceiling: \$455,262.00 Accounting Info: 2015-X0200-FEEBASED-20-20D008-11-4-151-1061- 251A Period of Performance: 05/01/2015 to 09/30/2016</p>					

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

\$0.00

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PREVIOUS EDITION NOT USABLE

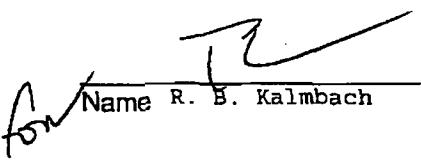
OPTIONAL FORM 348 (Rev. 4/2005)

Prescribed by GSA FAR (48 CFR) 53.213(f)

CONTRACTOR ACCEPTANCE OF TASK ORDER NRC-HQ-20-15-T-0007 (TO 30)

Acceptance of Task Order No: NRC-HQ-20-15-T-0007 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-0007 (TO 30):


Name R. B. Kalmbach

Executive Director, Contracts
Title

April 24, 2015
Date

SECTION B - Supplies or Services/Prices

NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION

- (a) Title: Development of Standardized Regulatory Improvements Concerning the Core Operating Limits Report.
- (b) Summary work description: Develop regulatory guidance for generating cycle-specific Core Operating Limits Reports (COLR), develop a database of COLR data from all operating units for NRC use, and develop guidance for the NRC review of COLRs.

PRICE/COST SCHEDULE

PERIOD OF PERFORMANCE – 05/01/2015 through 09/30/2015				
CLIN NO.	DESCRIPTION OF SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL CPFF
00001	Develop regulatory guidance for generating cycle-specific Core Operating Limits Reports (COLR), develop a database of COLR data from all operating units for NRC use, and develop guidance for the NRC review of COLRs			
Total				\$455,262.00

NRCB040A CONSIDERATION AND OBLIGATION—COST-PLUS-FIXED-FEE ALTERNATE I

- (a) The total estimated cost to the Government for full performance of this contract is **\$455,262.00** 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 currently 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 an incrementally-funded contract 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].

SECTION C - Description/Specifications

Statement of Work

1. PROJECT TITLE

Development of Standardized Regulatory Improvements Concerning the Core Operating Limits Report

2. BACKGROUND

Technical Specifications are required by 10 CFR 50.36; certain cycle-specific operating limits are included in the TS because they are Limiting Conditions for Operation as defined in and required by 10 CFR 50.36(c). Because the operating limits are cycle-specific, they are subject to change frequently.

The NRC staff issued Generic Letter 88-16 to provide a basis by which licensees could administratively maintain the cycle-specific parameter operating limits via the implementation of a COLR (Reference 1). Implementation of a COLR gave licensees a significant amount of flexibility to change the operating limits without prior NRC staff review.

This activity did not jeopardize compliance with 10 CFR 50.36 requirements because of the COLR implementation requirements provided in GL 88-16. In order to implement a COLR, licensees were required to request approval to add a section to the facility TS Administrative Reporting Requirements about the COLR. GL 88-16 provided the language for the newly added reporting requirements. This language included the following: (1) a list of the specific parameter operating limits that are determined in the core operating limits, and (2) a reference list of NRC-approved methodology documents used to determine the core operating limits, identified by document number, revision number, and approval date. Because of the two items above, the way in which the core operating limits were determined remained a part of the operating license for each plant, and thus under NRC control, and the COLR, including any midcycle revisions or supplements, was required to be provided, upon issuance for each reload cycle, to the NRC. This was the legal basis that enabled the implementation of a COLR at any given plant in compliance with the requirements of 10 CFR 50.36

Following the issuance of GL 88-16, the Technical Specifications Task Force wrote traveler TSTF-363, which the NRC approved, and which implemented GL 88-16 revising the Standard Technical Specifications to contain the Administrative Reporting Requirements for the COLR (Reference 2). TSTF included a regulatory improvement that eliminated the revision numbers and dates from the reference list of methodologies. The reasoning for this improvement was that it would allow licensees to implement current methodology revisions without prior NRC approval, thus easing a perceived, undue regulatory burden. TSTF-363 remains the current framework under which COLRs are implemented and developed, and under which the vast majority of licensee TS Administrative Reporting Requirements are maintained.

TSTF-363 has offered a successful reduction in undue regulatory burden in several instances. For example, the General Electric Standard Application for Reactor Fuel (GESTAR-II) process has been revised in excess of thirty times. The TSTF-363 framework allows for continuous plant-specific upgrades to the latest revision of GESTAR-II without any NRC review activity.

The NRC staff has determined, however, that prudent staff review practices and due diligence on the part of licensees are required to provide the requisite assurance that the COLR process

remains in compliance with 10 CFR 50.36 requirements. Some postulated and observed issues are discussed in the following paragraphs that demonstrate ways in which the COLR process has caused establishment of industry-wide compliance with 10 CFR 50.36 requirements to become tenuous.

First, the NRC staff has determined that prior methodology revisions could be used to determine core operating limits. This practice may be conjured as, “backsliding.” While the NRC staff believes that this is not a widely-adopted practice, backsliding is possible and could carry with it safety implications that have not been fully evaluated by the NRC staff. Backsliding is counter to the intent of the staff’s approval of TSTF-363, which stated that the regulatory improvement offered by removal of revision numbers and dates from the TS COLR References would allow licensees to use current methodologies.

Second, in accordance with both the original TS language proposed in GL 88-16, and with the language carried forward in TSTF-363, there is currently no clear guidance on the maintenance of the TS COLR References for any given plant. The NRC staff has observed that licensees will frequently add new references to the TS without requesting to delete older, obsolete, or outdated references.

The current framework available to licensees via the COLR process now offers an increased degree of administrative control over the process used to develop the core operating limits report. When GL 88-16 was issued, it was expected that licensees would use a single methodology, and the use of that methodology would remain under NRC control. Instead, COLR References lists have grown to include in excess of 40 references in some cases, offering licensees a plethora of options for use in generating core operating limits.

Owing to these concerns, the NRC staff has transmitted a letter to the Technical Specifications Task Force identifying regulatory issues with TSTF-363 and indicating that further requests to implement TSTF-363 will not be approved (Reference 3).

3. OBJECTIVE

The objective of this task order is to develop regulatory guidance for generating cycle-specific Core Operating Limits Reports (COLR), develop a database of COLR data from all operating units for NRC use, and develop guidance for the NRC review of COLRs.

4. SCOPE OF WORK

The Contractor will collect and review COLRs submitted by all licensees from calendar year 2012, 2013, and 2014. Previously submitted COLRs are accessible via the NRC Agencywide Document Access and Management System (ADAMS). The Contractor will extract data from the COLRs in order to develop and maintain a database of important COLR information.

In addition, the Contract will perform an abbreviated review of each COLR submittal to identify any discrepancies from the current NRC regulatory positions. This review will identify significant changes in COLR methodologies from cycle to cycle and verify that all methodologies are applied as intended.

After completing the review of all COLR information for the years 2012-2014, the Contractor will provide suggestions for licensee best practices when assembling future COLRs. In coordination with the NRC technical point of contact, this information may be used to prepare a draft NRC guidance document for the submittal of COLRS.

The database should record the following at a minimum: licensee name, site, docket number, ADAMS ML number, date of review, reactor design, number of references used in the COLR, average approval date of references, and comments for the evaluation of each report by the contractor. Other data fields may be required at the direction of the COR or technical point of contact. The database should be created in a format and style such that custom reports may be developed for NRC use and data can be easily exported to other programs. The database should be accessible to the COR and technical point of contact following the initial setup and will be transferred in full to the COR upon completion of the contract.

5. SPECIFIC TASKS

Task 1 - Attend a kickoff meeting at NRC Headquarters in Rockville, MD. Prior to attending the meeting, become familiar with the regulatory framework, the references provided, and the typical format and content of the COLR submittals. Participate in the meeting to further understand the staff goals for this contract. Following the kickoff meeting submit a trip report via email that summarizes any decisions reached and any understandings or technical direction given by the NRC staff.

Task 2 - Select the suggested program and format for the database. The database must meet the requirements described in Section 3. Using sample data, demonstrate the use and performance of the database to the technical point of contact. Coordinate with the technical point of contact to establish an acceptable design for the database.

Task 3 - Perform a review of all COLR submittals from the calendar years 2012, 2013, and 2014. The review of a COLR submittal includes the following steps. (1) Review the reference list in the COLR and ensure that it matches the reference list in the Technical Specifications (TS). (2) Review the COLR and ensure that where values are generated using an identified method, that method is included in the COLR reference list. (3) Evaluate whether the referenced methods are being applied appropriately. (4) Compare the COLR with the prior COLR submittal for any significant changes. (5) Identify the cause of significant changes in the COLR values and make a determination as to whether the changes are conservative or within the bounds of the referenced methodology. (6) Prepare a summary of the COLR submittal review and identify missing references, methods applied inappropriately, and significant changes in COLR values that are not supported by the methodologies. Assemble the information from these summaries and provide this to the technical point of contact in a regular report.

Task 4 - Recommend best practices for use in preparing COLR submittals. This includes suggestions that would improve the speed of reviews, the ease of finding important information within the COLR submittal, and the format and content of future COLR submittals. Identify vendors or licensees whose reports are the best examples of clarity and organization of content. Identify vendors or licensee whose reports make it difficult to find information, typically have errors,

or lack clarity. Prepare a summary report of the recommendations.

Task 5 - (OPTIONAL) At the direction of the COR, compile the results of the COLR submittal reviews and prepare a draft guidance document for use by licensees or vendors in preparing COLR submittals. The format of this guidance, if required, will be determined by the COR and technical point of contact and provided to the contractor.

6. APPLICABLE DOCUMENTS AND STANDARDS

- 1) Crutchfield, Dennis M., US NRC, "Removal of Cycle-Specific Parameter Limits from Technical Specifications," NRC Generic Letter 1988-016, October 4, 1988, ML031130447.
- 2) Excel Services Corporation, "Revise Topical Report References in ITS 5.6.5, COLR," TSTF Traveler 363, March 3, 2000, ML040630088.
- 3) Rosenberg, Stacy L., US NRC, letter to Technical Specifications Task Force Members, "Technical Specification Task Force Traveler 363, Revision 0, 'Revise Topical Report References in ITS 5.6.5, COLR,'" November 2, 2009, ML092151016.

7. DELIVERABLES AND DELIVERY SCHEDULE/REPORTING REQUIREMENTS

Deliverable Number	Deliverable and Acceptance Criteria	Deliverable Due Date
1	Kick-off Meeting Report. This report summarizes any decisions reached and any understandings or technical direction given by the NRC staff.	One week after the kick-off meeting
2	A copy of the initial database or a summary report detailing the chosen format, design, and key capabilities. The chosen format and design of the database must meet criteria described in Section 3 of the SOW and must address any NRC comments.	One month after submitting Deliverable 1
3	A report identifying the COLR submittals reviewed to date, any issues, and any missing documentation.	Every two months after submitting Deliverable 1
4	Draft Report containing the suggested best practices for assembling COLR submittals. Include examples from previous COLR submittals and a discussion of how the suggested best practices will improve the COLR.	Eight months after submitting Deliverable 1
5	Final Report containing the suggested best practices for assembling COLR submittals, incorporating comments from the technical point of contact.	One month after receiving NRC comments
6	(Optional) Draft guidance document for the creation of COLR submittals by vendors and licensees. The guidance document format must meet the direction of the COR and technical point of contact.	One month after receiving direction to start Task 5

7	(Optional) Final guidance document for the creation of COLR submittals by vendors and licensees. The guidance document format must meet the direction of the COR and technical point of contact.	One month after receiving NRC comments
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*CNWRA considers a milestone to be complete after all NRC comments on it have been satisfactorily dispositioned. In order to minimize paperwork, CNWRA will assume completion, if no comments are received within 30 days of CNWRA submission of a milestone.

The above deliverables shall be submitted electronically to the task order COR and technical point of contact.

8. GOVERNMENT-FURNISHED PROPERTY

N/A

9. PLACE OF PERFORMANCE

Work will be performed at the contractor's site.

10. TRAVEL/MEETINGS

The following travel maybe required under this task order:

One 2 day trip to NRC Headquarters in Rockville, MD, for two people.
All travel requires prior written approval from the COR.

11. 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. Access to non-public information in ADAMS is required.

12. LICENSE FEE RECOVERY

Work performed under this task order is not license fee recoverable.

SECTION D - Packaging and Marking

NRCD020 BRANDING

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 Regulation, under Contract/order number NRC-HQ-50-14-E-0001/ NRC-HQ-20-15-T-0007.

(End of Clause)

NRCD010 PACKAGING AND MARKING

(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

2052.215-71 PROJECT OFFICER AUTHORITY (OCT 1999)

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

Name: Evan Davidson
Mail Stop: OWFN 10 F4
Washington, DC 20555
(301)-415-1342
Evan.Davidson@nrc.gov

Alternate COR:

Name: David Cunanan
Address: Mail Stop: OWFN 10 B3
Washington, DC 20555
301-415-3573
David.Cunanan@nrc.gov

(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 or changes to specific travel identified in the Statement of Work), fills in details, or otherwise serves to accomplish the contractual statement of work.

(2) Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.

(3) Review and, where required by the contract, approve 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 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 that 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 to the instruction or direction 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.

(End of Clause)

SECTION F - Deliveries or Performance

NRCF032 TASK/DELIVERY ORDER PERIOD OF PERFORMANCE (SEP 2013)

This order shall commence on May 1, 2015 and will expire on September 30, 2016.

(End of Clause)

NRCF010 PLACE OF DELIVERY-REPORTS

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

- a. Name: Evan Davidson (1 Electronic Copy)
Contracting Officer's Representative (COR)
Address: Evan.Davidson@nrc.gov
- b. Name: Lisa Kauffman (1 Electronic Copy)
Contract Specialist (CS)
Address: Lisa.Kauffman@nrc.gov

(End of Clause)

SECTION G - Contract Administration Data

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: NRCPayments@nrc.gov.

(End of Clause)

SECTION H - Special Contract Requirements

2052.215-70 KEY PERSONNEL (JAN 1993)

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

<u>Name</u>	<u>Title</u>
Lane Howard	Program Manager
Daniel Speaker	Principal Investigator

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.

(End of Clause)

NRCH480 USE OF AUTOMATED CLEARING HOUSE (ACH) ELECTRONIC PAYMENT/REMITTANCE ADDRESS

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.

(End of Clause)

NRCH470 GREEN PURCHASING (SEP 2013)

(a) In furtherance of the sustainable acquisition goals included in Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," products and services acquired under this contract/order shall be energy-efficient (Energy Star or Federal Energy Management Program (FEMP) designated), water-efficient, biobased, environmentally preferable (e.g., Electronic Product Environmental Assessment Tool (EPEAT) certified), non-ozone depleting, recycled content, and non-toxic or less toxic alternatives, to the maximum extent practicable in meeting NRC contractual requirements.

(b) See NRC's Green Purchasing Plan (GPP) at:
<http://pbadupws.nrc.gov/docs/ML1219/ML12191A130.pdf> and the General Service

Administration's (GSA) Green Procurement Compilation at:
<http://www.gsa.gov/portal/content/198257>.

(c) The contractor shall flow down this clause into all subcontracts and other agreements that relate to performance of this contract/order.

(End of Clause)

NRCH410 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES

(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 entitled: "Your Rights Under the Energy Reorganization Act".

(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.

(End of Clause)

NRCH400 SECURITY REQUIREMENTS RELATING TO THE PRODUCTION OF REPORT(S) OR THE PUBLICATION OF RESULTS UNDER CONTRACTS, AGREEMENTS, AND GRANTS

Review and Approval of Reports

(a) Reporting Requirements. The contractor/grantee shall comply with the terms and conditions of the contract/grant regarding the contents of the draft and final report, summaries, data, and related documents, to include correcting, deleting, editing, revising, modifying, formatting, and supplementing any of the information contained therein, at no additional cost to the NRC. Performance under the contract/grant will not be deemed accepted or completed until it complies with the NRC's directions. The reports, summaries, data, and related documents will be considered draft until approved by the NRC. The contractor/grantee agrees that the direction, determinations, and decisions on approval or disapproval of reports, summaries, data, and related documents created under this contract/grant remain solely within the discretion of the NRC.

(b) Publication of Results. Prior to any dissemination, display, publication, or release of articles, reports, summaries, data, or related documents developed under the contract/grant, the contractor/grantee shall submit them to the NRC for review and approval. The contractor/grantee shall not release, disseminate, display or publish articles, reports, summaries, data, and related documents, or the contents therein, that have not been reviewed and approved by the NRC for release, display, dissemination or publication. The contractor/grantee agrees to conspicuously place any disclaimers, markings or notices, directed by the NRC, on any articles, reports, summaries, data, and related documents that the contractor/grantee intends to release, display, disseminate or publish to other persons, the public, or any other entities. The contractor/grantee agrees, and grants, a royalty-free, nonexclusive, irrevocable worldwide license to the government, to use, reproduce, modify, distribute, prepare derivative works, release, display or disclose the articles, reports, summaries, data, and related documents developed under the contract/grant, for any governmental purpose and to have or authorize others to do so.

(c) Identification/Marking of Sensitive Unclassified Non-Safeguards Information (SUNSI) and Safeguards Information (SGI). The decision, determination, or direction by the NRC that information possessed, formulated or produced by the contractor/grantee constitutes SUNSI or SGI is solely within the authority and discretion of the NRC. In performing the contract/grant, the contractor/grantee shall clearly mark SUNSI and SGI, to include for example, OUO-Allegation Information or OUO-Security Related Information on any reports, documents, designs, data, materials, and written information, as directed by the NRC. In addition to marking the information as directed by the NRC, the contractor shall use the applicable NRC cover sheet (e.g., NRC Form 461 Safeguards Information) in maintaining these records and documents. The contractor/grantee shall ensure that SUNSI and SGI is handled, maintained and protected from unauthorized disclosure, consistent with NRC policies and directions. The contractor/grantee shall comply with the requirements to mark, maintain, and protect all information, including documents, summaries, reports, data, designs, and materials in accordance with the provisions

of Section 147 of the Atomic Energy Act of 1954 as amended, its implementing regulations (10 CFR 73.21), Sensitive Unclassified Non-Safeguards and Safeguards Information policies, and NRC Management Directives and Handbooks 12.5, 12.6 and 12.7.

(d) Remedies. In addition to any civil, criminal, and contractual remedies available under the applicable laws and regulations, failure to comply with the above provisions, and/or NRC directions, may result in suspension, withholding, or offsetting of any payments invoiced or claimed by the contractor/grantee.

(e) Flowdown. If the contractor/grantee intends to enter into any subcontracts or other agreements to perform this contract/grant, the contractor/grantee shall include all of the above provisions in any subcontracts or agreements.

(End of Clause)

SECTION J - List of Documents, Exhibits and Other Attachments

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 System for Award Management (SAM) database and for any liability resulting from the Government's reliance on inaccurate or incomplete SAM 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).

**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 System for Award Management (SAM) database at <http://sam.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>
<u>From</u> <u>To</u>	<u>From</u> <u>To</u>	<u>\$</u>

(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 ___.

(a)	<u>Direct Costs</u>	<u>Amount Billed</u>	
		<u>Current Period</u>	<u>Cumulative</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:
- Total negotiated contract fixed-fee percent ___ and amount \$ _____
 - 85% allowable fee amount \$ _____
 - Cumulative fee billed on prior invoices \$ _____
 - 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 Category</u>	<u>Hours Billed</u>	<u>Rate</u>	<u>Total</u>	<u>Cumulative Hours Billed</u>
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

<u>Labor Category</u>	<u>Salaries</u>	<u>Fringe 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