

ORDER FOR SUPPLIES OR SERVICES						PAGE 1 OF 27	
IMPORTANT Mark all packages and papers with contract and/or order numbers							
1. DATE OF ORDER 07/05/2016		2. CONTRACT NO. (If any) NRC-HQ-50-14-E-0001			6. SHIP TO:		
3. ORDER NO NRC-HQ-20-16-T-0006		4. REQUISITION/REFERENCE NO. NRR-16-0202		a. NAME OF CONSIGNEE US NUCLEAR REGULATORY COMMISSION-			
5. ISSUING OFFICE (Address correspondence to) US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP TWEN-5E03 WASHINGTON DC 20555-0001				b. STREET ADDRESS MAIL PROCESSING CENTER 4930 BOILING BROOK PARKWAY			
				c. CITY ROCKVILLE		d. STATE MD	e. ZIP CODE 20852
7 TO				f. SHIP VIA			
a. NAME OF CONTRACTOR S W R I				8. TYPE OF ORDER			
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR		<input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 6220 CULEBRA RD				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.		Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
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))							12. F.O.B. POINT
<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							
13. PLACE OF			14. GOVERNMENT B/L NO		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS 30
a. INSPECTION Destination		b. ACCEPTANCE Destination					
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)	
	The contractor shall provide services in accordance to the Statement of Work (SOW) entitled "Technical Assistance to Review Actions Related to Post-Fukushima Mitigating Strategies and Compliance with NRC Order EA-12-049 at U.S. Nuclear Power 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						\$0.00	
b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE MAILSTOP 03-E17A						17(i) GRAND TOTAL	
c. CITY ROCKVILLE							
d. STATE MD						e. ZIP CODE 20852-2738	
22. UNITED STATES OF AMERICA BY (Signature) 						23. NAME (Typed) SHARLENE M. MCCUBBIN TITLE CONTRACTING/ORDERING OFFICER	

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 347 (Rev. 2/2012)
Prescribed by GSA/FAR 48 CFR 53.21307

SUNSI REVIEW COMPLETE

TEMPLATE - ADM001

JUL 25 2016

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.

07/05/2016

NRC-HQ-50-14-E-0001

ORDER NO

NRC-HQ-20-16-T-0006

ITEM NO (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Plants"					
	Total Ceiling Amount: \$755,090.00					
	Total Obligated Amount: \$500,000.00					
	Accounting Info:					
	2016-X0200-FEEBASED-20-20D110-11-4-212-1062-252A					

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

\$0.00

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 340 (Rev. 4/2000)
Prescribed by GSA FAR (48 CFR) 53.213(f)

NRC-HQ-50-14-E-0001
NRC-HQ-20-16-T-0006

CONTRACTOR ACCEPTANCE OF TASK ORDER NRC-HQ-20-16-T-0006

Acceptance of Task Order No. NRC-HQ-20-16-T-0006 under contract no. NRC-HQ-50-14-E-0001 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-20-16-T-0006:



Name R. B. Kalmbach

Executive Director, Contracts
Title

July 8, 2016
Date

SECTION B - Supplies or Services/Prices

NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION

- (a) Title: Technical Assistance to Review Actions Related to Post-Fukushima Mitigating Strategies and Compliance with NRC Order EA-12-049 at U.S. Nuclear Power Plants
- (b) Summary work description: The objective of this contract task order is to obtain expert technical assistance to support NRC staff in evaluating plant-specific aspects and actions implemented in response to lessons learned from the nuclear accident at Fukushima Dai-ichi. This will involve reviewing the sequence of events and acceptability of licensee actions and FLEX equipment capabilities regarding mitigating strategies at U.S. nuclear power plants developed in response to NRC Order EA-12-049. Specifically, the objective of this task order is to quickly obtain expert technical support for reactor systems reviews and development of acceptance review inputs and SE inputs regarding licensees' mitigating strategies and final integrated plans (FIPs).

PRICE/COST SCHEDULE

CLIN NO.	DESCRIPTION OF SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL CPFF
00001	Review Actions Related to Post-Fukushima Mitigating Strategies and Compliance with NRC Order EA-12-049 at U.S. Nuclear Power Plants			
Total				\$755,090.00

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 \$755,090.00 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) 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**

C.1 Project Title

Technical Assistance to Review Actions Related to Post-Fukushima Mitigating Strategies and Compliance with NRC Order EA-12-049 at U.S. Nuclear Power Plants

C.2 Background

To address lessons learned from the accident at the Fukushima Dai-ichi Nuclear Power Plant caused by the March 2011 Tohoku earthquake and subsequent tsunami, the Nuclear Regulatory Commission established a Near-Term Task Force (NTTF) to conduct a systematic review of U.S. Nuclear Regulatory Commission (NRC) processes and regulations and to determine if the NRC should make additional improvements to its regulatory framework. The NTTF developed a set of recommendations, documented in SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," dated July 12, 2011, intended to clarify and strengthen the regulatory framework for protection against natural hazards.

NTTF Recommendation 4 focused on strengthening capabilities and developing strategies to mitigate the effects of prolonged station blackout conditions resulting from a beyond-design-basis external event (BDBEE) at U.S. nuclear power plant sites. On February 17, 2012, the NRC staff provided SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami," to the Commission. This paper included a proposal to order licensees to implement enhanced BDBEE mitigation strategies. As directed by Staff Requirements Memorandum SRM-SECY-12-0025, the NRC staff issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" on March 12, 2012.

Order EA-12-049 directed licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool (SFP) cooling capabilities in the event of a BDBEE. Order EA-12-049, Attachment 2, requires that operating power reactor licensees and construction permit holders use a three-phase approach for mitigating BDBEEs. The initial phase requires the use of installed equipment and resources to maintain or restore core cooling, containment and SFP cooling capabilities. The transition phase requires providing sufficient, portable, onsite equipment and consumables to maintain or restore these functions until they can be accomplished with resources brought from off site. The final phase requires obtaining sufficient offsite resources to sustain those functions indefinitely. The timing of when to transition to the next phase is determined by plant-specific analyses. While the initiating event is undefined, it is assumed to result in an extended loss of ac power (ELAP) with loss of normal access to the ultimate heat sink (LUHS). Thus, the ELAP with LUHS is used as a surrogate for a BDBEE.

On August 21, 2012, following several submittals and discussions in public meetings with NRC staff, the Nuclear Energy Institute (NEI) submitted document NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0 to the NRC to provide specifications for an industry-developed methodology for the development, implementation, and maintenance of guidance and strategies in response to the Mitigation Strategies order. The NRC staff reviewed NEI 12-06 and on August 29, 2012, issued Japan Lessons-Learned Directorate (JLD) Interim Staff Guidance (ISG) JLD-ISG-2012-01, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," endorsing NEI 12-06, Revision 0, with comments, as an

acceptable means of meeting the requirements of Order EA-12-049. On December 10, 2015, NEI submitted Revision 2 to NEI 12-06 incorporating a number of lessons learned from licensee implementation of mitigating strategies to date. On January 22, 2016, the NRC staff issued JLD-ISG-2012-01, Revision 1 endorsing NEI 12-06, Revision 2, with comments, as an acceptable means of meeting the requirements of Order EA-12-049. The NRC staff is reviewing licensees' mitigating strategies for compliance with Order EA-12-049 and documenting the results in safety evaluations (SEs) for each site.

C.3 Objective

The objective of this contract task order is to obtain expert technical assistance to support NRC staff in evaluating plant-specific aspects and actions implemented in response to lessons learned from the nuclear accident at Fukushima Dai-ichi. This will involve reviewing the sequence of events and acceptability of licensee actions and FLEX equipment capabilities regarding mitigating strategies at U.S. nuclear power plants developed in response to NRC Order EA-12-049. Specifically, the objective of this task order is to quickly obtain expert technical support for reactor systems reviews and development of acceptance review inputs and SE inputs regarding licensees' mitigating strategies and final integrated plans (FIPs).

C.4 Scope of Work

Provide technical review of the mitigating strategies developed by licensees as required by Order EA-12-049. More specifically, the review is in the reactor systems technical area and covers the sequence of events, the acceptability of licensee actions and timing thereof, and the capabilities of the equipment that supports mitigating strategies. The review covers pressurized water reactors and boiling water reactors, as needed, using methodologies and criteria that have been developed by the NRC staff for this purpose.

C.4.1 Tasks

Task 1: Technical Coordination / Kick-off Meeting

The Contractor's Program Manager and Subject Matter Experts shall participate in a kickoff meeting which will prepare the Contractor for the review and analysis activities of this task order. The kickoff is anticipated to occur within two weeks after award of the task order. The meeting will be held at NRC Headquarters in Rockville, Maryland and will last a maximum of 2 days. The meeting will focus on the NRC methodology for reactor systems review of mitigating strategies. The meeting will provide training and guidance on NRC Order EA-12-049, related industry and NRC guidance documents, applicable licensee submittals, NRC staff reactor systems review methods and tools, desired review and analysis activities (contract tasks), deliverables, communication protocols, technical consultation with appropriate NRC staff, handling sensitive unclassified information, NRC security / badge requirements, standards for safety evaluation review, Microsoft requirements, etc.

Task 2: Acceptance Review Input for Licensee FIPs

The Contractor will conduct an initial review of each assigned licensee's FIP and electronic reading room (e-portal) documents to: (1) determine whether the licensee has provided sufficient information related to the reactor systems subject areas needed for the staff's review and (2) identify whether the staff review is likely to be complex and/or require above average interaction with the licensee. The Contractor will document the results of this acceptance review in a brief report. The specific format of this report will be determined at the kick-off meeting, but will likely be in the form of a Microsoft® Word template / worksheet provided by the NRC staff, in which the reviewer will briefly summarize key information from the licensee's FIP or identify the location of the needed information in the FIP. This task may also include participation in conference calls with the licensee and / or NRC staff to identify or locate needed information in

the FIP or e-portal, or to alert the licensee of the potential need for additional information. The acceptance review report will be due to the applicable NRC project manager and technical branch chief at dates to be determined at the kickoff meeting, or as communicated by the COR in advance, typically within 7 calendar days after receipt of the licensee's FIP. The acceptance review report will be submitted by electronic format, most likely by e-mail, or by posting to the NRC/JLD Sharepoint site, or other mutually agreed shared-access network site. The Contractor will develop acceptance review reports for up to 32 nuclear power plant sites, as assigned by the COR or JLD project manager.

Task 3: Draft SE input preparation for reactor systems SE sections related to Order EA-12-049:

The Contractor shall review the licensee's plant-specific mitigating strategy through applicable licensee submittals and mitigating strategies information (e.g., licensee's FIP, NRC staff's Interim Staff Evaluation, NRC staff audit summary report and SE tracker document, licensee 6-month updates, additional supplemental licensee information or revisions, etc.) as discussed in the kick-off meeting to develop draft SE input for the reactor-systems-related section of the SE for each assigned licensee. This draft SE input will document the reviewer's assessment of the licensee's compliance with Order EA-12-049 with respect to the reactor systems area of review. SE inputs are to be developed on a site basis, covering all power reactors at a particular site. The Contractor shall identify to the NRC staff any technical areas that cannot be resolved from the information available at the earliest opportunity, and in any case, no later than 21 calendar days following receipt of the licensee's FIP. This task may also include conference calls with NRC staff and / or the licensee, as needed, to resolve technical concerns or obtain needed supplemental information. The draft SE input will be due to the applicable NRC project manager and technical branch chief at dates to be determined at the kickoff meeting, or as communicated by the COR in advance, typically within 14 calendar days after receipt of the licensee's FIP and plant-specific SE template. (Note that the FIP will typically be provided 3 to 4 weeks in advance of the plant-specific SE template.) The Draft SE input will be submitted by electronic format, preferably as an update to the shared-access SE file maintained on the NRC/JLD Sharepoint site, or other mutually agreed shared-access network site.

The Contractor will develop draft SE inputs for up to 32 nuclear power plant sites, as assigned by the COR or JLD project manager.

Task 4: Final SE input preparation for reactor systems SE sections related to Order EA-12-049:

The NRC staff will review the Contractor's draft SE input and provide comments by e-mail and/or by conference call for any areas requiring revision, correction, or further information. The Contractor shall resolve all NRC staff comments and submit the necessary revisions in a Final SE input for the reactor-systems-related section of the SE. The Final SE input will be due to the applicable NRC project manager and technical branch chief at dates to be determined at the kickoff meeting, or as communicated by the COR in advance, typically within 7 calendar days after receipt of the NRC staff's comments. The Final SE input will be submitted by electronic format, preferably as an update to the shared-access SE file maintained on the NRC/JLD Sharepoint site, or other mutually agreed shared-access network site. The Contractor will develop Final SE inputs for up to 32 nuclear power plant sites, as assigned by the COR or JLD project manager. If the NRC staff informs the Contractor that it has no comments on the Draft SE input requiring revision, then the Draft SE input will be considered the Final SE input and no further submittal from the Contractor shall be required for that site.

C.5 Reporting Requirements

The contractor shall provide the following reports in Microsoft® Word format, submitted electronically to the Contracting Officer (CO) and the COR.

C.5.1 Monthly Letter Status Report (MLSR)

The contractor shall provide a Monthly Letter Status Report which consists of a technical progress report and financial status report. This report will be used by the Government to assess the adequacy of the resources proposed by the contractor to accomplish the work contained in this SOW and provide status of contractor progress in achieving activities and producing deliverables. The report shall include order summary information, work completed during the specified period, milestone schedule information, problem resolution, travel plans, and staff hour summary.

Technical Progress and Financial Status Report

Reports will be prepared in accordance with the base EWC contract.

NOTE: If no work is done during the current reporting period, a PMPR is not required until work has resumed.

The reports must contain a License Fee Recovery Reporting Section which lists the CAC number(s) for each plant and the associated costs against those CAC numbers for the reporting period.

C.5.2 Final Report

The contractor shall provide a final report summarizing the work performed and the results and conclusions under this order.

C.6 Deliverables and Delivery Schedule

Section #	Deliverable	Due Date	Format	Submit to
C.4.1	Task 1 [Technical Coordination / Kick-off Meeting]	14 calendar days following award of task order	Full participation of Program Manager and Reactor Systems Reviewers	N/A
C.4.1	Task 2 [Acceptance Review Input for Licensee FIPs]	TBD – typically 7 calendar days following receipt of each licensee's FIP, unless specified otherwise by e-mail from the COR, JLD Project Manager, or JLD Technical Branch Chief	Word Document	COR, JLD Project Manager, and JLD Technical Branch Chief
C.4.1	Task 3 [Draft SE input for reactor systems SE sections]	TBD – typically 14 calendar days following receipt of each licensee's plant-specific SE template, unless specified otherwise by e-mail from the COR, JLD Project Manager, or JLD Technical Branch Chief	Word Document	COR, JLD Project Manager, and JLD Technical Branch Chief
C.4.1	Task 4 [Final SE input for reactor systems SE sections]	TBD – typically 7 calendar days following receipt of NRC staff's comments on the corresponding draft SE input, unless specified otherwise by e-mail from the COR, JLD Project Manager, or JLD Technical Branch Chief	Word Document	COR, JLD Project Manager, and JLD Technical Branch Chief
C.5.1 MLSR	Monthly Report	20 th calendar day of the following month	Word Document	CO/COR
C.5.2 Final Report	Final Report	30 calendar days prior to contract expiration	Word Document	COR

The contractor shall provide deliverables in Microsoft® Word format, unless other software is approved in writing by the NRC COR. Deliverables shall be provided in electronic format (and hard copy, if requested). The electronic versions of the deliverables shall be delivered to the NRC COR and the Japan Lessons-Learned Division (JLD) Project Manager assigned to the applicable plant. Unless the contract is otherwise bilaterally modified by the parties, the contractor shall submit deliverables by the draft due dates in the deliverable table. The NRC

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COR will provide a revised schedule of activities, deliverables, and milestones for the project as the project progresses.

Unless otherwise specified below, for all tasks, the contractor shall provide all deliverables as draft products. The NRC COR will review all draft deliverables (and coordinate any internal NRC staff review, if needed) and provide comments back to the contractor. The contractor shall revise the draft deliverable based on the comments provided by the NRC COR, and, within 7 business days, deliver the final version of the deliverable, unless otherwise specified in the deliverable table. When mutually agreed upon between the contractor and the NRC COR, the contractor may submit preliminary or partial drafts to ensure the contractor understands the particular work requirement.

The contractor shall provide all data produced under this contract to the NRC COR at the conclusion of the contract. All data first produced in performance of this contract are subject to FAR clause 52.227-14, Rights in Data—General (Dec 2007), which is hereby incorporated by reference.

C.7 Applicable Documents and Standards

The NRC COR will furnish the following materials to the contractor. Upon request, other background information and reference materials will be provided to the contractor, if available.

- Industry generic analyses methodologies (e.g., topical reports) and the NRC staff's endorsement letters, which typically include conditions and limitations
- NRC staff's review tools
- Plant-specific documentation, including each licensee's Overall Integrated Plan, 6 month updates, and FIP, the NRC staff's Interim Staff Evaluation, audit summary report, SE tracking spreadsheet, and the SE templates (in Word, plant-design-specific).
- Access to plant-specific documentation, including the UFSAR and licensee's e-portal.

C.8 Section 508 – Electronic and Information Technology Standards

N/A

C.9 Place of Performance

Work will be performed at Center for Nuclear Waste Regulatory Analyses (CNWRA) facilities. The kickoff meeting and training will be held at NRC headquarters. Subsequent meetings and review efforts may be performed at NRC headquarters, if desired or as needed, subject to the requirements of section C.10, "Contractor Travel."

C.10 Contractor Travel

2-day kickoff meeting and training at NRC headquarters in Rockville, MD to discuss expectations, establish communication, etc. for three to four staff, within the first 2 weeks after the task order is awarded.

Additional travel may be necessary and will be conducted on an as-needed basis. For example: Follow-up meetings at NRC headquarters for additional training or consistency reviews, as needed

The contractor shall request and obtain approval from the COR before incurring any travel costs.

C.11 Applicable Publications (Current Editions)

The contractor shall comply with the following applicable regulations, publications, manuals, and local policies and procedures:

1. NUREG-1379, NRC Editorial Style Guide.
<http://pbadupws.nrc.gov/docs/ML0932/ML093280744.pdf>

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-20-16-T-0006.

(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

CONTRACTING OFFICER'S REPRESENTATIVE (COR) AUTHORITY

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

Contracting Officer's Representative

Name: Stephen Philpott, NRR/JLD
Mail Stop: OWFN-13C6
Phone: 301-415-2365
E-mail: Stephen.Philpott@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 date of award and will expire on September 29, 2018.

(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. Contracting Officer's Representative (COR) (1 Electronic Copy)
Address: Refer to Section E, subsection CONTRACTING OFFICER'S REPRESENTATIVE (COR) AUTHORITY
- b. Name: Contract Specialist (CS), (1 Electronic Copy)

(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>
Nathan Hall	Principal Investigator, Senior Research Engineer
Daniel Speaker	Nuclear Engineer
John Crosby	Reactor Engineer

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

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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 (JUL 2015)**

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).

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

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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.

**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/Individuals/International-Taxpayers/Taxpayer-Identification-Numbers-\(TIN\)\)](http://www.irs.gov/Individuals/International-Taxpayers/Taxpayer-Identification-Numbers-(TIN)))).
- c. Payee's Name and Address. Show the name of the Payee as it appears in the contract and its correct address. Where the Payee is authorized to assign the proceeds of this contract in accordance with the clause at Federal Acquisition Regulation (FAR) 52.232-23 Assignment of Claims, 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 FAR 52.232-33 Payment by Electronic Funds Transfer-System for Award Management.
- 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. Final invoices must include the name of the NRC Contracting Officer's Representative (COR) and Contracting Officer.

p. 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.

q. **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.

r. **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).

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

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

u. **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)	Direct Costs	Amount Billed	
		Current Period	Cumulative
(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	\$ 500	320
			<u>\$2,400</u>	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>
	<u>\$2,400</u>	<u>\$480</u>

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	= <u>\$ 900</u>
	<u>\$2,000</u>

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.)

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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	= <u>\$20,000</u>
	<u>\$30,000</u>

(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	<u>\$166,802</u>