

ORDER FOR SUPPLIES OR SERVICES						PAGE OF PAGES	
IMPORTANT: Mark all packages and papers with contract and/or order numbers.						1	29
1. DATE OF ORDER 04/15/2016		2. CONTRACT NO. (If any) NRC-HQ-50-14-E-0001		6. SHIP TO:			
3. ORDER NO. NRC-HQ-20-16-T-0004		4. REQUISITION/REFERENCE NO. NRR-16-0148		a. NAME OF CONSIGNEE  BERNARD GRENIER			
5. ISSUING OFFICE (Address correspondence to) US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP TWFN-5E03 WASHINGTON DC 20555-0001				b. STREET ADDRESS US NUCLEAR REGULATORY COMMISSION OFFICE OF NUCLEAR REACTOR REGULATION MAIL STOP OWFN-10C15			
				c. CITY WASHINGTON		d. STATE DC	e. ZIP CODE 20555
7. TO: a. NAME OF CONTRACTOR S W R I				f. SHIP VIA			
b. COMPANY NAME				8. TYPE OF ORDER			
c. STREET ADDRESS 6220 CULEBRA RD				<input type="checkbox"/> a. PURCHASE REFERENCE YOUR:		<input checked="" type="checkbox"/> b. DELIVERY  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 OFFICE OF NUCLEAR MATERIAL			
11. BUSINESS CLASSIFICATION (Check appropriate box(es))						12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" 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	
a. INSPECTION Destination		b. ACCEPTANCE Destination				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)	
	The contractor shall provide services in accordance to the Statement of Work (SOW) entitled "Review of the 10 CFR 50.48(c), NFPA 805 License Amendment Request for the Davis-Besse Nuclear Power Station Unit 1, Transition to National Fire Protection 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							
c. CITY ROCKVILLE						17(i) GRAND TOTAL	
d. STATE MD							
e. ZIP CODE 20852-2738						\$149,341.00	
22. UNITED STATES OF AMERICA BY (Signature)				04/15/2016		23. NAME (Typed) ARACELIS PEREZ-ORTIZ TITLE: CONTRACTING/ORDERING OFFICER	

AUTHORIZED FOR LOCAL REPRODUCTION  
PREVIOUS EDITION NOT USABLE

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

**SUNSI REVIEW COMPLETE**

**MAY 06 2016**

**ADM002**

**TEMPLATE - ADM001**

**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  
04/15/2016

CONTRACT NO.  
NRC-HQ-50-14-E-0001

ORDER NO.  
NRC-HQ-20-16-T-0004

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	<p>Association Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" in the Areas Pertaining to Nuclear Power Plant Fire Modeling."</p> <p>Total Ceiling Amount: \$149,341.00 Total Obligated Amount: \$80,000.00</p> <p>Accounting Info: 2016-X0200-FEEBASED-20-20D007-11-4-149-1034- 253A Period of Performance: 04/15/2016 to 10/12/2017</p>					

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

\$0.00

AUTHORIZED FOR LOCAL REPRODUCTION  
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 348 (Rev. 4/2008)

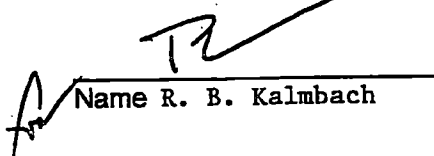
Prescribed by GSA FAR (48 CFR) 53.213(f)

NRC-HQ-50-14-E-0001  
NRC-HQ-20-16-T-0004

**CONTRACTOR ACCEPTANCE OF TASK ORDER NRC-HQ-20-16-T-0004**

Acceptance of Task Order No. NRC-HQ-20-16-T-0004 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-0004:

  
Name R. B. Kalmbach

Executive Director, Contracts  
Title

April 14, 2016  
Date

## SECTION B - Supplies or Services/Prices

### NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION

- (a) Title: *Review of the 10 CFR 50.48(c), NFPA 805 License Amendment Request for the Davis-Besse Nuclear Power Station Unit 1, Transition to National Fire Protection Association Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" in the Areas Pertaining to Nuclear Power Plant Fire Modeling.*
- (b) Summary work description: The objective of this task order is to obtain technical expertise to assist the staff in determining the safety adequacy of the Davis-Besse 10 CFR 50.48 (c) (NFPA 805) LAR in the technical review area of nuclear power plant fire modeling.

### PRICE/COST SCHEDULE

CLIN NO	DESCRIPTION OF SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL CPFF
00001	Review of the 10 CFR 50.48(c), NFPA 805 License Amendment Request for the Davis-Besse Nuclear Power Station Unit 1.			
Total				\$149,341.00

### 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 **\$149,341.00** 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**

Title: *Review of the 10 CFR 50.48(c), NFPA 805 License Amendment Request for the Davis-Besse Nuclear Power Station Unit 1, Transition to National Fire Protection Association Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" in the Areas Pertaining to Nuclear Power Plant Fire Modeling*

Docket No.: 50-346  
CAC Numbers: MF7190 Fee Billable  
Cost Center: 1034

**BACKGROUND**

The Office of Nuclear Reactor Regulation (NRR) is currently implementing a new risk-informed, performance-based (RI/PB) rule under Section 50.48(c) of Title 10 of the *Code of Federal Regulations* (10 CFR 50.48(c)). This rule endorses the National Fire Protection Association Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants."

FirstEnergy Nuclear Operating Company (FENOC) has submitted a license amendment request (LAR) for Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse) to adopt 10 CFR 50.48(c) (NFPA 805) and the Fire Protection (AFPB) and Probabilistic Risk Assessment (PRA) Licensing (APLA) Branches in the Division of Risk Assessment (DRA), NRR, and this project-level statement of work outlines the requirements for technical assistance to be provided by Southwest Research Institute(SwRI)/Center for Nuclear Waste Regulatory Analyses (CNWRA) to the AFBP and APLA Branches in the DRA, NRR, to perform a technical review and develop Safety Evaluation Report (SER) of the proposed amendment in terms of regulatory requirements and the protection of public health and safety and the environment.

**OBJECTIVE**

The objective of this task order is to obtain technical expertise from the CNWRA/SwRI to assist the staff in determining the safety adequacy of the Davis-Besse 10 CFR 50.48 (c) (NFPA 805) LAR in the technical review area of nuclear power plant fire modeling so the NRC staff can make a licensing decision regarding whether or not the LAR is in accordance with 10 CFR 50.48(c), NFPA 805, 2001 edition and the guidance provided in the NUREG-0800, Standard Review Plan (SRP) Section 9.5.1.2.

---

### TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

One senior-level Fire Protection Engineer on an intermittent, part-time basis who is knowledgeable of nuclear power plant fire protection programs and has in-depth experience in fire modeling and fire hazard analysis; has in-depth knowledge and experience in the design and operation of nuclear power plant fire protection systems; and, experience in the application of Appendix R compliance.

The individual should be knowledgeable in the preparation of the Request for Additional Information (RAIs) and Technical Evaluation Report (TER), i.e., input to NRC SER.

The engineer must be able to satisfy the escorted access requirements for the Owner Controlled Area and Protected Area of Davis-Besse site. Davis-Besse site located Carroll Township, Ottawa County, near Oak Harbor, Ohio. The plant consists of one Babcock & Wilcox pressurized-water reactor nuclear steam supply system.

### WORK REQUIREMENTS AND SCHEDULE

#### Tasks

#### Scheduled Completion

- |   |  |
|---|--|
| 1. Based on 10 CFR 50.48(c); NFPA 805, 2001 Edition and the guidance provided in the SRP Section 9.5.1.2., review and evaluate the Davis-Besse, 10 CFR 50.48(c), (NFPA 805) LAR in the areas of nuclear power plant fire modeling and determine the safety adequacy in order to enable the staff to make a licensing decision regarding whether or not the LAR is in accordance with the regulations. Identify areas where any additional information is needed to determine if the LAR is in accordance with the applicable regulatory requirements and develop questions for the licensee i.e., request for additional information (RAIs). Prepare a TER utilizing the template and guidance to be provided by the NRC staff. | Four weeks after authorization of work.  |
| 2. Participate in "go-to meetings, public meetings and telephone conference calls with the staff which may include the licensee to discuss matters of mutual concern relating to CNWRA's evaluation. If requested, prepare a technical letter report.   | Three days after the telephone call or as mutually agreed upon with the staff. |
| 3. a. Prepare for the audit by reviewing the draft TER and RAIs, and prepare a technical letter report consisting of input to the audit plan.   | One week prior to the scheduled audit.   |
| b. Travel to the Davis-Besse site and participate in the audit of the NFPA 805 LAR in accordance with LIC-111, "Regulatory Audits" to review the same areas reviewed Tasks 1 and 2; identify the need for more RAIs. Prepare technical letter reports as follows:   |  |

## WORK REQUIREMENTS AND SCHEDULE

<u>Tasks</u>	<u>Scheduled Completion</u>
(1) Prepare on-site RAIs.	One day prior to the exit meeting.
(2) Prepare a trip report.	One week after the on-site audit.
4. Review and evaluate the RAI responses and determine if the response(s) adequately address the open issues. If the response(s) is not acceptable, discuss the RAI response(s) with the NRC staff who may determine that a conference call is needed to discuss the RAI response(s) with the licensee in which case the PI will be notified and a mutually acceptable date to participate in the conference call will be set. If the response is deemed inadequate, prepare a technical letter report describing the RAI and the bases. If the response is deemed to be adequate, incorporate the results in the TER prepared under Task 1 and submit the updated TER. <sup>1</sup>	Two weeks after receipt of the RAI response(s).
5. Upon notification by the COR and/or receipt of final comments from the COR, update the TER utilizing the template and guidance supplied by the NRC.	Two weeks after notification by the COR.

## PERIOD OF PERFORMANCE

Refer to Section F - Deliveries or Performance, paragraph NRCF032 Task/Delivery Order Period of Performance (Sep 2013).

## DELIVERABLES

### Technical Reporting Requirements

CNWRA is responsible for structuring the deliverable to follow agency standards. The current agency standard is Microsoft Office Suite 2013. The current agency Portable Document Format (PDF) standard is Adobe Acrobat XI Professional. Deliverables must be submitted free of spelling and grammatical errors and conform to requirements stated in this section.

### Technical Reporting Requirements

NOTE: The transmittal letter and cover page shall contain the job code number (JCN), the task order number, and title.

---

<sup>1</sup> Whether or not the responses to the RAIs are acceptable or not, the updated TER is to be included with proposed RAIs.

1. At the completion of Task 1, submit a TER in the format to be provided by the NRC along with a listing of the RAIs along with the bases for those RAIs. See Attachment 1 for guidance in the preparation of RAIs.
2. With respect to Task 2, at the request of the NRC, on significant matters, submit a technical letter report that contains a summary of the issue(s) discussed the resolution, if one was reached and/or a list of the follow-up actions and who has what action to take. If applicable, update the RAI(s).
3. At the completion of Subtask 3.b.(1), submit a technical letter report that contains the RAIs uncovered while performing the audit.
4. At the completion of Subtask 3.b.(2), submit a trip report that contains summary of the activities performed during the audit and a summary of significant highlights, observations, insights, and findings. Include the title and description of any documents, slides, or other materials reviewed on the trip. As appropriate, describe possible resolution of the findings/observations, noting disposition responsibility (if appropriate) of the items presented and reviewed.
5. At the completion of review of each request to evaluate the RAI responses under Task 4 submit the updated TER along with any outstanding/new RAIs which clearly articulates the bases for the need for further information or discussion.
6. At the completion of Task 5, submit the final TER, draft and final as appropriate, that contains the results of the evaluation, findings. **NOTE: This report is to be submitted ONLY to the COR and the Alternate COR.**

#### Project Management Progress Report Requirements

A budget is to be developed for each Task based on the agreed upon allocation of the level of effort among the Tasks. Separate expenditures for each Task will be reported in the MLSR against the budget using the following format:

Authorized Cost Ceiling: \$ _____		Funds Obligated to date: \$ _____		
	Expenditures	Task Expenditures	Percentage	
<u>Tasks</u>	<u>Planned Budget</u>	<u>for the Period</u>	<u>Cumulative</u>	<u>vs. Budget</u>
1.	\$	\$	\$	%
2.	\$	\$	\$	%
3.	\$	\$	\$	%
4.	\$	\$	\$	%
5.	\$	\$	\$	%
6.	\$	\$	\$	%
7.	\$	\$	\$	%
Total	\$ _____	\$ _____	\$ _____	% _____

A monthly expense variance greater than 10 percent must be explained in the "Problem/Resolution," section.



NOTE: Once a variance reaches 15 percent, prior approval is required in writing from the NRC COR, or a Modification is to be processed.

PMPRs 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 PMPRs 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.

Address the PMPR to the COR with copies to the alternate COR, if any, the Chief of APLA, DRA and to the technical reviewer(s).

#### MEETINGS AND TRAVEL

One one-person, five-day on-site audit trip to the Davis-Besse site located Carroll Township, Ottawa County, near Oak Harbor, Ohio.

#### NRC-FURNISHED MATERIALS

The Davis-Besse NFPA 805 LAR ADAMS Accession No. is ML153500A314 and the Supplement is ML16067A195. Both of these documents will be provided under separate correspondence.

NOTE: Some of these documents contain proprietary information and must be safeguarded against unauthorized disclosure. After completion of work, the documents should either be destroyed or returned to NRC. If they are destroyed, please confirm this in an E-mail to the COR and include the date and manner in which the documents were destroyed.

The NRC COR will provide those NRC documents related to licensing activities (for example, any Non-Publicly available safety evaluation reports, audit reports, and related documents) that are readily available. The NRC COR will provide access to pertinent NFPA 805 LAR reviews or other NRC documents and docketed correspondence on related issues. The CNWRA/SwRI staff shall identify any additional NRC documentation that is needed and the COR will determine whether these will be provided by the NRC or obtained directly by the CNWRA/SwRI from ADAMS, NRC public document room or the NRC website at [www.nrc.gov](http://www.nrc.gov).

#### OTHER APPLICABLE INFORMATION

##### License Fee Recovery

The work specified in this SOW is license fee recoverable under CAC No. MF7190.

### Assumptions and Understandings

It is understood that the level of effort for each Task contains sufficient effort to conduct telephone conference calls with the NRC staff. Such phone calls, for example, might be arranged by the NRC COR with the Licensing Project Manager and other NRC staff to discuss the RAIs and to reach an understanding with the licensee. Comments might be provided such that the RAIs may have to be resubmitted.

For Task 1, it is understood that in developing the RAIs, the bases will need to provide justification demonstrating that the results will "fill a hole" in the Technical Evaluation Report. For example the statement can be phrased as the following: *This issue, for which the SER would eventually not be complete, affects section X of the TER and will be included in Section X of the TER.*

For Task 2, it is understood that preparation for the audit includes minimal participation in a conference call ("go-to-meeting") and effort to make travel arrangements.

It is understood that the "on-site" RAIs means RAIs that were developed on site as a result of the audit; they are in addition to from those developed under Task 1.

The level of effort assumption for the audit under Task 3 is based on eight hours for preparation and travel to the site, 40 hours to participate in the audit and return travel and eight hours for documentation.

For Task 4, it is understood that the deliverable consists of the RAIs and the TER, that the NRC will not provide written comments on either the RAIs and/or the TER but that there may be clarification calls from the Technical Reviewers to discuss or otherwise clarify the RAIs. It is understood that the TER is provided for information only, to show the context of where and how the response to the RAI will fill in the missing information needed to complete the SER.

It is understood that the RAI responses under Task 4 will not be received all at once, but intermittently and that draft responses may be available for review. It is further understood that draft RAI responses may be available for review prior to their formal submittal. And, it is understood that the actual time it will take to complete Task 4 may span up to 3 months or longer after receipt of the initial RAIs.

Unless otherwise approved by Letter of Technical Direction or by a Modification, the level of effort among the Tasks cannot be exceeded by more than 15 percent.

It is understood that this project will require coordination between CNWRA/SwRI, Pacific Northwest National Laboratory (PNNL), and the NRC staff since all three will be providing technical expertise and input for the review of the LAR.

It is understood that CNWRA/SwRI has copies of the following documents needed to perform the review:

1. Regulatory Guide 1.205, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants."

Assumptions and Understandings (Continued)

2. NUREG-0800, Standard Review Plan, Section 9.5.1.2, "Risk-Informed, Performance-Based Fire Protection Program."
3. Office of Nuclear Reactor Regulation, Office Instruction, Revision 0 of LIC-111, "Regulatory Audits."
4. Office of Nuclear Reactor Regulation, Office Instruction, Revision 3 of LIC-101, "License Amendment Review Procedures."
5. NEI 04-02, Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program Under 10 CFR 50.48(c), Revision 2, Nuclear Energy Institute, Washington, DC, April 2008.
6. NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, National Fire Protection Association, Quincy MA.
7. NUREG/CR-6850, "EPRI/NRC-RES, Fire PRA Methodology for Nuclear Power Facilities," Volumes 1 and 2, USNRC, September 2005.
8. Regulatory Guide 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," ML070240001 (Clarification to RG 1.200, Revision 1, ML071940235) (Draft Revision 1 was issued as DG-1161, 09/2006, ML062480134) (Revision 0, 02/2004, ML040630078, was issued with SRP Chapter 19.1, ML040630300) (Draft Revision 0 was issued as DG-1122, 11/02, ML023360076)
9. NUREG-1824, "Verification and Validation of Selected Fire Models for Nuclear Power Plant Applications," U.S. Nuclear Regulatory Commission, Washington, DC, May 2007.
10. Regulatory Guide 1.174, Revision 1, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis".
11. NRC NUREG-0800, Standard Review Plan, Chapter 19.2, "Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance," Revision 0, June 2007.
12. NEI 00-01, "Guidance for Post Fire Safe Shutdown Analysis," Revisions 1 & 2, Nuclear Energy Institute, Washington, DC.
13. Templates for development of various technical review related documents including but not limited to Audit Reports, RAIs, Safety Evaluations, Technical Specifications, etc.
14. Other NRC guidance such as Frequently Asked Questions (FAQs), historical documents related to previous 10 CFR 50.48(c) reviews, etc.

Guidance for Preparing Requests for Additional Information

Additional information necessary to resolve open or unresolved items identified during the review of the information associated with the LAR needs to be requested in a manner that is unambiguous, has an adequate basis, and is necessary for the safety review. RAIs should be developed using the following guidance:

1. An RAI should include the appropriate basis for requesting the information. The basis should explain why the information is needed, including how it will be used to help make a reasonable assurance finding.
2. Judgmental language should be avoided.
  - a. Questions should not make adequacy determinations.
  - b. Words like "unacceptable" or "deficient" and "deviation" should be avoided. Likewise, avoid using phrases like "*the staff will require*" since it is premature to require anything when asking questions.
3. Questions should be focused, not open-ended.
  - a. The RAI should be in the form of a question or an imperative to provide what is needed to complete the review. When the reviewer needs specific information or the underlying issue may not be apparent, the RAI should clearly identify the information requested and/or the underlying issue.
  - b. "If ... then" questions (questions that could lead to follow-on questions) should provide both parts of the question.

After the RAIs have been forwarded to the applicable NRC PM, teleconferences and/or public meetings may be held before issuing the RAIs:

- a. These discussions prevent misunderstandings of the intent of the questions.
- b. If a draft RAI is clarified or resolved before issuance, the NRC staff will prepare a documented record of the resolution (i.e., minutes of a public meeting or a teleconference summary).

After the RAIs have been issued, the licensee may request a telephone conference and/or a public meeting:

- a. The teleconferences and/or meetings provide additional clarification of the intent of the RAIs and will help the licensee prepare satisfactory responses.
- b. To ensure that the response appropriately addresses the RAI, the licensee may submit a draft response (which the NRC docket in the ADAMS) and may request a follow-up teleconference and/or meeting.

After receiving RAI response(s) from the licensee, the NRC may hold a teleconference and/or a public meeting:

Guidance for Preparing Requests for Additional Information (Continued)

- a. The purpose of discussing a response with the licensee is to better understand the response and/or clarify areas of disagreement. If the resolution of a response relies on information not submitted to the NRC, the licensee should submit the information on the docket. The submission is not intended to be another RAI or a means to minimize the number of safety evaluation report open items, but frequently reduces the number of SER open items.
- b. If the areas of disagreement remain, the unresolved RAI becomes a safety evaluation report open item.

**NOTE THE REQUIREMENT FOR ANY FOLLOW-UP RAIs:**

For follow-up RAIs, reference the original RAI, the date of the letter in which the licensee responded to the RAI, and the ADAMS Accession Number of the letter.

"In a letter dated \_\_\_\_\_ (ADAMS Accession No. MLXXXXXXXX), the licensee responded to \_\_\_\_\_ RAI \_\_\_\_\_ and stated \_\_\_\_\_."

## **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-0004.

(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: Bernard Grenier  
Mail Stop: OWFN-10C15  
Phone: 301-415-2726  
E-mail: [Bernard.Grenier@nrc.gov](mailto:Bernard.Grenier@nrc.gov)

#### **Alternate Contracting Officer's Representative**

Name: Jay Robinson  
Mail Stop: OWFN-10C15  
Phone: 301-415-2878  
E-mail: [Jay.Robinson@nrc.gov](mailto:Jay.Robinson@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 October 12, 2017.

(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: Aracelis Pérez-Ortiz Contract Specialist (CS), (1 Electronic Copy)  
Address: [Aracelis.Perez-ortiz@nrc.gov](mailto:Aracelis.Perez-ortiz@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](mailto: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>
Dr. Marc Janssens	Principal Investigator, Senior 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)

### 2052.215-78 TRAVEL APPROVALS AND REIMBURSEMENT (OCT 1999) - ALTERNATE I (OCT 1999)

(a) Total expenditure for travel may not exceed **\$2,285.00** without the prior approval of the contracting officer.

(b) All foreign travel must be approved in advance by the NRC on NRC Form 445, Request for Approval of Official Foreign Travel, and must be in compliance with FAR 52.247-63 Preference for U.S. Flag Air Carriers. The contractor shall submit NRC Form 445 to the NRC no later than 30 days prior to the commencement of travel.

(c) The contractor will be reimbursed only for travel costs incurred that are directly related to this contract and are allowable subject to the limitations prescribed in FAR 31.205-46.

(d) It is the responsibility of the contractor to notify the contracting officer in accordance with the FAR Limitations of Cost clause of this contract when, at any time, the contractor learns that travel expenses will cause the contractor to exceed the travel ceiling amount identified in paragraph (a) of this clause.

(e) Reasonable travel costs for research and related activities performed at State and nonprofit institutions, in accordance with Section 12 of Pub. L. 100-679, must be charged in accordance with the contractor's institutional policy to the degree that the limitations of Office of Management and Budget (OMB) guidance are not exceeded. Applicable guidance documents include OMB Circular A-87, Cost Principles for State and Local Governments; OMB Circular A-122, Cost Principles for Nonprofit Organizations; and OMB Circular A-21, Cost Principles for Educational Institutions.

(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 (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](mailto: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

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>
---------------------------------	-------------------------------	-------------	--------------	--

(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)	<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	= <u>\$ 900</u>
	\$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	= <u>\$20,000</u>
	\$30,000

(EX: Subcontracts for Companies A &amp; 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 - \$41,148Overhead @ 40% of Total Direct Costs11) General and Administrative (G&A) Expense - \$22,784G&A @ 20% of Total Costs, excluding subcontracts and consultants12) Fixed-Fee - \$8,218Fixed-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