

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES
1 20

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

1. DATE OF ORDER 05/20/2015		2. CONTRACT NO. (If any) NRC-HQ-50-14-E-0001		6. SHIP TO:	
3. ORDER NO. NRC-HQ-20-15-T-0008		4. REQUISITION/REFERENCE NO. NRR-15-0087		a. NAME OF CONSIGNEE US NUCLEAR REGULATORY COMMISSION-	
5. ISSUING OFFICE (Address correspondence to) US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP TWFN-5E03 WASHINGTON DC 20555-0001				b. STREET ADDRESS MAIL PROCESSING CENTER 4930 BOILING BROOK PARKWAY	
d. CITY ROCKVILLE		d. STATE MD	e. ZIP CODE 20852		
7. TO: a. NAME OF CONTRACTOR S W R I				f. SHIP VIA	
b. COMPANY NAME				8. TYPE OF ORDER	
c. STREET ADDRESS 6220 CULEBRA RD				<input type="checkbox"/> a. PURCHASE <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 OFF OF NUCLEAR REACTOR REGULATION	
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <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					12. F.O.B. POINT
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS 30	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	NRC-HQ-50-14-E-0001/NRC-HQ-20-15-T-0008 (31)					
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						\$111,842.00
b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE MAILSTOP 03-E17A						
c. CITY ROCKVILLE		d. STATE MD	e. ZIP CODE 20852-2738			\$111,842.00
22. UNITED STATES OF AMERICA BY (Signature)		05/21/2015		23. NAME (Typed) HUGO ALCANTARA 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)

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE OCT 22 2015

ADM002

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE NO

2

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

DATE OF ORDER 05/20/2015
CONTRACT NO. NRC-HQ-50-14-E-0001

ORDER NO. NRC-HQ-20-15-T-0008

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
00001	Accounting Info: 2015-X0200-FEEBASED-20-20D008-11-4-149-1128-251A Labor/Fee Estimated Cost \$111,842.00 Incrementally Funded Amount: \$75,000.00 The obligated amount of award: \$75,000.00. The total for this award is shown in box 17(i).				111,842.00	

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

\$111,842.00

CONTRACTOR ACCEPTANCE OF TASK ORDER NRC-HQ-20-15-T-0008(31)

Acceptance of Task Order No: NRC-HQ-20-15-T-0008 (31) should be made by having an official, authorized to bind your organization, execute two copies of this document in the space provided and return one copy to the Contracting Officer. You should retain the other copy for your records.

Accepted Task Order No. NRC-HQ-20-15-T-0008(31):



Name R. B. Kalmbach

Executive Director, Contracts

Title

May 20, 2015

Date

SECTION B - Supplies or Services/Prices

NRCB010 BRIEF PROJECT TITLE AND WORK DESCRIPTION (AUG 2011)

- (a) The title of this project is: "Braidwood Ultimate Heat Sink Technical Assistance"
- (b) Summary work description: The objective of this task order is to provide the technical, safety, and legal basis for the NRC's decision regarding an LAR. To support this objective, the contractor will review the methodology and results described in the LAR for technical adequacy and agreement with applicable NRC guidance.

PRICE/COST SCHEDULE

ITEM NO.	DESCRIPTION OF SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL ESTIMATED CPFF
00001	Braidwood Ultimate Heat Sink Technical Assistance	[REDACTED]	[REDACTED]	[REDACTED]
Total				\$111,842.00

NRCB040A CONSIDERATION AND OBLIGATION—COST-PLUS-FIXED-FEE ALTERNATE I (AUG 2011)

- (a) The total estimated cost to the Government for full performance of this contract is **\$111,842.00** of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] represents the fixed-fee.
- (b) 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.
- (c) This is an incrementally-funded contract and FAR 52.232-22 - "Limitation of Funds" applies.
- (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

1. PROJECT TITLE

Braidwood Ultimate Heat Sink Technical Assistance

2. BACKGROUND

Exelon Generation Company, LLC, (the licensee) submitted a request for amendment to the operating licenses for Braidwood Station Units 1 and 2. The proposed license amendment request (LAR) raises the temperature limit for the Ultimate Heat Sink (UHS) set forth in Technical Specification Surveillance Requirement 3.7.9.2. The change to TS SR 3.7.9.2 is based on revised meteorological data and analysis of the UHS temperature response under the most limiting conditions.

3. SCOPE

The Nuclear Regulatory Commission (NRC) requires technical assistance in performing the review of the LAR. The contractor will perform a review of the LAR in its entirety, with a focus on the technical and regulatory adequacy of the methodology used to support the proposed increase in the UHS temperature limit. This review includes all major portions of the methodology, including the use of revised meteorological data, the thermal performance of the UHS, the potential impacts to equipment credited in accident analyses, and the impacts of increased UHS temperature on affected accident analyses.

4. OBJECTIVE

The objective of the NRC Safety Evaluation is to provide the technical, safety, and legal basis for the NRC's decision regarding an LAR. To support this objective, the contractor will review the methodology and results described in the LAR for technical adequacy and agreement with applicable NRC guidance. Additionally, the contractor will draft a Technical Evaluation Report (TER) describing their review and conclusions on the technical and regulatory adequacy of LAR. If portions of the methodology are not shown to be technically adequate to support the conclusions expressed in the LAR, or if portions of the methodology do not agree with NRC guidance, then the contractor will identify these "gaps" in writing as a request for additional information (RAI) and provide them to the NRC technical point of contact and Contracting Officer's Representative (COR). The NRC technical point of contact and COR will coordinate issuing the RAI to the licensee to address the gaps and obtain responses. The contractor will review responses to the RAI and use those responses to finalize the TER.

5. APPLICABLE DOCUMENTS AND STANDARDS

1. 10 CFR 50.90
2. 10 CFR 50.37
3. 10 CFR 50 Appendix A General Design Criteria
4. SRP 9.2.5, "Ultimate Heat Sink"
5. NUREG-0693 "Analysis of Ultimate Heat Sink Cooling Ponds"
6. Regulatory Guide 1.27 Revision 3, "Ultimate Heat Sink"

7. SRP 15.0.2, "Review of transients and Accident Analysis Methods"
8. Ryan, P.J., and Harleman, D.R.F., Analytical and Experimental Study of Transient Cooling Pond Behavior. Report No. 161, Department of Civil Engineering MIT, January 1973.
9. Brady, D.K., Graves, Jr. W.L., and Geyer, J.C., Cooling Water Studies for Edison Electric Institute. Research Project RP-49, Department of Geography and Environmental Engineering, The Johns Hopkins University, November 1969
10. Effects of Geographical Location on Cooling Pond Requirements and Performance, EPA, Water Quality Office

6. SPECIFIC TASKS

6.1 Kickoff Meeting

6.1.1 Preparation for Kickoff Meeting; become familiar with the LAR and importance references.

6.1.2 Attend Kickoff Meeting

Attend a one-time kick-off meeting (via conference call) to discuss the scope of work, expectations, task order management, and performance requirements of the task order. The kick-off meeting shall be held within twenty (20) working days after the contractor receives the LAR materials.

6.2 Review LAR Submission

6.2.1 Evaluate the LAR Submittal

Review the LAR to determine the technical accuracy and regulatory compliance of the request. Specifically focusing on whether the methodology is consistent with NUREG-0693 and is defensible based on the expected heat transfer from the UHS pond. The evaluation should include a review of: 1) the calculations and computer programs, which form the basis of the LAR, for technical acceptability; 2) the associated design inputs, assumptions, methodology and conclusions; 3) the applicant's selection of meteorological data for design input; 4) the applicant's choice of UHS modeling as it pertains to the actual physical parameters of the UHS and water flow paths; 5) the applicant's use of the analytical methods of NUREG 0693, as it pertains to determining UHS outlet temperature in 3 hour intervals; 6) the suitability of instrumentation and instrument accuracy, and 7) the responses to existing requests for additional information. This review will not include the containment analyses.

Upon notification from the COR, participate in conference calls with the licensee to discuss the LAR materials.

6.2.2 Prepare Draft Technical Evaluation Report

The contractor shall prepare a draft TER that describes the results of the review and evaluation. The TER must contain draft text, tables, and illustrations, as appropriate, suitable for inclusion in NRC staff's safety evaluation. The TER must provide sufficient information to support the conclusions regarding the technical and regulatory adequacy of the LAR. It must be written so that a person with either non-nuclear

technical background or non-technical background can understand the basis for conclusions cited. The draft TER should identify gaps in the technical or regulatory adequacy of the LAR.

The contractor shall prepare a final draft TER that incorporates comments provided by the COR.

6.2.3 Prepare RAIs

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

The contractor shall participate in conference calls with the NRC technical point of contact to discuss the RAI and the need for specific questions.

The contractor shall participate in conference calls with the NRC staff and licensee staff, as necessary, to clarify the intent of specific questions.

6.2.4 Review RAI Responses

The contractor shall review the licensee's response to the RAI and determine whether it adequately resolves the identified gaps.

The contractor shall participate in conference calls with the NRC staff and licensee staff, as necessary, to clarify information provided in the response to the RAI.

6.2.5 Update the TER

The contractor shall update the draft TER prepared under Task 6.2.2 to incorporate licensee's RAI response and revise affected portions of the draft text, tables, and illustrations in the TER.

The contractor shall prepare a final TER that incorporates comments provided by the COR.

6.3 (OPTIONAL) Perform Confirmatory Analysis

Upon approval from the CO, the contractor shall perform an independent confirmatory analysis to evaluate the validity and conservatism of the licensee's calculations. The independent confirmatory analysis will use a combination of available technical models to be mutually agreed upon by the contractor and NRC technical point of contact. The methodology, results, and conclusions of the confirmatory analysis must be described in the TER and the analysis will be used to justify the conclusions of the TER.

7. DELIVERABLES AND DELIVERY SCHEDULE

All deliverables shall include the following identifying information:

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

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

The above deliverables shall be provided electronically and in hard copy (upon request) to the Contracting Officer (CO), COR, and NRC technical point of contact.

The COR will acknowledge receipt and acceptance of the required deliverables by e-mail.

8. REQUIRED LABOR CATEGORIES

Professional Level 3 with extensive background and experience in heat transfer phenomena associated with ponds and lakes, how such phenomena is commonly modeled, and the models, methods, and rationale for the methodology described in NUREG-0693 "Analysis of Ultimate Heat Sink Cooling Ponds". Expertise must also include familiarity with NRC regulations, criteria, or guidelines pertaining to UHS analysis and how such information is documented in a safety evaluation.

Project Manager; the contractor shall provide a project manager to oversee the effort and ensure the timely, accurate, and complete submittal of the required task order deliverables.

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

9. GOVERNMENT-FURNISHED PROPERTY

N/A

10. PLACE OF PERFORMANCE

Primary place of performance will be at the contractor's site. No travel is anticipated in the performance of this task order.

11. PERIOD OF PERFORMANCE

The anticipated period of performance for this task order is (6) six months from task order award date.

12. SECURITY

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

SECTION D - Packaging and Marking

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.

NRCD020 BRANDING

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

Work Supported by the U.S. Nuclear Regulatory Commission (NRC), Office of Nuclear Reactor Regulation, under Contract/order number NRC-HQ-50-14-E-0001/NRC-HQ-20-15-T-0008(31).

SECTION E - Inspection and Acceptance

CONTRACTING OFFICER'S REPRESENTATIVE

(a) The Contracting Officer's authorized representative hereinafter referred to as the Contracting Officer's Representative (COR) for this Task Order is:

Name: Evan Davidson
Address: Mail Stop: OWFN-10F4
Washington, DC 20555
Telephone Number: 301-415-1342

(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.

SECTION F - Deliveries or Performance

NRCF010 PLACE OF DELIVERY-REPORTS

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

- a. Name: Evan Davidson (1 Electronic Copy)
- b. Contracting Officer's Representative (COR)
- c. Address: Evan.Davidson@nrc.gov (1 Electronic Copy)
- d. Name: Hugo Alcantara (1 Electronic Copy)
- e. Contract Specialist (CS)
- f. Address: Hugo.Alcantara@nrc.gov (1 Electronic Copy)

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

This order shall commence on May 22, 2015 and will expire on November 21, 2015.

DELIVERABLES AND DELIVERY SCHEDULE

SOW Task #	Deliverable Title & Remarks	Due Date
6.2.2	Draft TER Report must have the required content and format.	NLT 60 calendar days after award of the Task Order.
6.2.2	Updated Draft TER All comments from the NRC technical point of contact and COR are addressed.	NLT 7 calendar days after receipt of NRC comments.
6.2.3	Draft RAI Questions identify a clear regulatory basis. Questions clearly communicate the information needed in a response. Questions are technically sound.	NLT 60 calendar days after award of the Task Order.
6.2.3	Final RAI All comments from the NRC technical point of contact and COR are addressed.	NLT 7 calendar days after receipt of NRC comments.
6.2.5	Final TER Report contains all required content in the required format. Report clearly discusses the review performed. Report expresses conclusions on the technical and regulatory adequacy of the LAR.	NLT 30 calendar days after receipt of RAI response.
6.2.5	Updated Final TER All comments from the NRC technical point of contact and COR are addressed.	NLT 7 calendar days after receipt of NRC comments.

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-System for Award Management".

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.

SECTION H - Special Contract Requirements

2052.215-70 KEY PERSONNEL (JAN 1993)

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

<u>Name</u>	<u>Title</u>
Lane Howard	Program Manager
Dr. Sitakanta Mohanty	Principal Investigator/Subject Matter Expert

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.

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

(a) Total expenditure for travel may not exceed **\$0.00** 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.

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.

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.

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.

**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.

SECTION I - Contract Clauses

52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within 15 days.

(End of clause)

SECTION J - List of Documents, Exhibits and Other Attachments

Attachment No.

Description

1. Billing Instructions for Cost-Reimbursement Type Contracts