

2. CONTRACT NO. (Proc. Inst. Ident.) NRC-HQ-13-C-42-0051	3. EFFECTIVE DATE <b>SEP 09 2013</b>	4. REQUISITION/PURCHASE REQUEST/PROJECT NO. NRO-13-050 & NRO-13-206 Dtd: 1/22/13 and 7/19/13
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5. ISSUED BY U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Claudia G. Melgar, 301-287-0956 Mail Stop: 3WFN-05-C64MP Washington, DC 20555	CODE 3100	6. ADMINISTERED BY (If other than Item 5) U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop: 3WFN-05-C64MP Washington, DC 20555
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7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP Code)  TAYLOR ENGINEERING, INC  10151 DEERWOOD PARK BLVD STE 300  JACKSONVILLE FL 322565507  DUNS: 181561168 DUNS+4:	8. DELIVERY <input type="checkbox"/> FOB ORIGIN <input type="checkbox"/> OTHER (See below) 9. DISCOUNT FOR PROMPT PAYMENT  10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN
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11. SHIP TO/MARK FOR U.S. Nuclear Regulatory Commission  Washington DC 20555	CODE	FACILITY CODE	12. PAYMENT WILL BE MADE BY NRC Payments, NRCPayments@nrc.gov U.S. Nuclear Regulatory Commission One White Flint North 11555 Rockville Pike, Mailstop O3-E17A Rockville MD 20852-2738 PHONE:      FAX:
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13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)	14. ACCOUNTING AND APPROPRIATION DATA B&P: 2013-25-11-4-212 JC: Q4294 BOC: 252A App. No.: 31X0200 FAIMIS: 132940 DUNS: 181561168 PSC: AZ16 OBLIGATE: \$850,000.00
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15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
	The contractor shall provide the U.S. Nuclear Regulatory Commission: "Technical Assistance with Tsunami and Storm Surge Hazard Assessment at Nuclear Power Plant Sites in the United States" in accordance Section C of the contract and other provisions in this contract.  Contract Type: Labor Hour-Cost Reimbursement Travel  Total Current Obligation Amount: \$850,000.00 Total Contract Ceiling Amount: \$2,826,160.00				

**15G. TOTAL AMOUNT OF CONTRACT**      \$2,826,160.00.

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(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
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**CONTRACTING OFFICER WILL COMPLETE ITEM 17 (SEALED-BID OR NEGOTIATED PROCUREMENT) OR 18 (SEALED-BID PROCUREMENT) AS APPLICABLE**

17. <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)	18. <input type="checkbox"/> SEALED-BID AWARD (Contractor is not required to sign this document.) Your bid on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the terms listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed-bid contract.)
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19A. NAME AND TITLE OF SIGNER (Type or print) <i>James A. Marino, PE, Vice President</i>	20A. NAME OF CONTRACTING OFFICER Donald A. King Contracting Officer
19B. NAME OF CONTRACTOR BY <i>[Signature]</i>	20B. UNITED STATES OF AMERICA BY <i>[Signature]</i>
19C. DATE SIGNED 6 Sep 13	20C. DATE SIGNED 9/9/2013

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PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 BRIEF PROJECT TITLE AND WORK DESCRIPTION (AUG 2011)

- (a) The title of this project is: TECHNICAL ASSISTANCE WITH TSUNAMI AND STORM SURGE HAZARD ASSESSMENT AT NUCLEAR POWER PLANT SITES IN THE UNITED STATES"
- (b) The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform Technical Assistance with Tsunami and Storm Surge Hazard Assessment at Nuclear Power Plant Sites in the United States as defined in this statement of work (SOW), except for those items specified as Government-furnished property and services. The contractor shall perform to the standards in this contract/order.

B.2 PRICE/COST SCHEDULE

Period of Performance -Base Year 1- September 15, 2013 - September 14, 2014				
CLIN	Position/Level	Burdened Labor Rates*	Hours	Total
0001	Project Manager	[REDACTED]	[REDACTED]	[REDACTED]
0002	Subject Matter Expert	[REDACTED]	[REDACTED]	[REDACTED]
0003	Senior Technical Review	[REDACTED]	[REDACTED]	[REDACTED]
0004	Administrative Support	[REDACTED]	[REDACTED]	[REDACTED]
	COST REIMBURSEMENT			
	Subtotal Labor Base Year 1		[REDACTED]	\$912,610.00
*Represents a blended labor rate. The NRC will be billed the actual labor rates.				
0005	Travel (Cost Reimbursable) The government will pay up to the rates specified in the Government Federal Travel Regulations (FTR) for travel destination. NO PAYMENT WILL BE MADE WITHOUT BACKUP DOCUMENTATION/RECEIPTS. All travel must be approved in advance by the NRC Contracting Officer Representative SEE SOW ENTITLED "TRAVEL"			[REDACTED]
	Total Labor Base Year 1 and Travel			\$917,610.00

<b>Period of Performance -- Base Year 2 - September 15, 2014 -- September 14, 2015</b>				
CLIN	Position/Level	Burdened Labor Rates*	Hours	Total
0001	Project Manager	[REDACTED]	[REDACTED]	[REDACTED]
0002	Subject Matter Expert	[REDACTED]	[REDACTED]	[REDACTED]
0003	Senior Technical Review	[REDACTED]	[REDACTED]	[REDACTED]
0004	Administrative Support	[REDACTED]	[REDACTED]	[REDACTED]
	COST REIMBURSEMENT			
	Subtotal Labor Base Year 1		[REDACTED]	\$935,322.00
*Represents a blended labor rate. The NRC will be billed the actual labor rates.				
0005	Travel (Cost Reimbursable) The government will pay up to the rates specified in the Government Federal Travel Regulations (FTR) for travel destination. NO PAYMENT WILL BE MADE WITHOUT BACKUP DOCUMENTATION/RECEIPTS. All travel must be approved in advance by the NRC Contracting Officer Representative SEE SOW ENTITLED "TRAVEL"			NTE [REDACTED]
	Total Labor Base Year 1 and Travel			\$940,322.00

<b>Period of Performance -- Base Year 3 - September 15, 2015 -- September 14, 2016</b>				
CLIN	Position/Level	Burdened Labor Rates*	Hours	Total
0001	Project Manager	[REDACTED]	[REDACTED]	[REDACTED]
0002	Subject Matter Expert	[REDACTED]	[REDACTED]	[REDACTED]
0003	Senior Technical Review	[REDACTED]	[REDACTED]	[REDACTED]
0004	Administrative Support	[REDACTED]	[REDACTED]	[REDACTED]
	COST REIMBURSEMENT			
	Subtotal Labor Base Year 1		[REDACTED]	\$963,228.00
*Represents a blended labor rate. The NRC will be billed the actual labor rates.				
0005	Travel (Cost Reimbursable) The government will pay up to the rates specified in the Government Federal Travel Regulations (FTR) for travel destination. NO PAYMENT WILL BE MADE WITHOUT BACKUP DOCUMENTATION/RECEIPTS. All travel must be approved in advance by the NRC Contracting Officer Representative SEE SOW ENTITLED "TRAVEL"			[REDACTED]
	Total Labor Base Year 3 and Travel			\$968,228.00
<b>TOTAL ESTIMATED BASE YEARS 1 THROUGH 3 PLUS TRAVEL</b>				<b>\$2,826,160.00</b>

\*Represents a blended labor rate. The NRC will be billed the actual labor rates.

**B.3 BRIEF PROJECT TITLE AND WORK DESCRIPTION (AUG 2011)**

(a) The title of this project is: Technical Assistance with Tsunami and Storm Surge Hazard Assessment at Nuclear Power Plant Sites in the United States.

(b) Summary work description: The contractor will conduct independent and confirmatory hydrologic hazard analyses to support NRC hydrology safety reviews of the hazard evaluation submittals for operating nuclear power plants and new reactor applications for Early Site Permit and/or Combined Operating License, as necessary. This will be accomplished using relevant data and acceptable deterministic and probabilistic methods for estimating design-basis tsunami and surge/seiche floods that reflect changes in the state of the art flood estimation since the 1977 publication of its Regulatory Guide 1.59, "Design Basis Floods for Nuclear Power Plants, especially for regions susceptible to severe storm and tsunami events.

**B.4 CONSIDERATION AND OBLIGATION-LABOR-HOUR CONTRACT (AUG 2011)**

(a) The ceiling price to the Government for full performance under this contract is to be determined at time of award \$2,826,160.00.

(b) The contract includes direct labor hours at specified fixed hourly rates, inclusive of wages, fringe, overhead, general and administrative expenses, and profit.

(c) It is estimated that the amount currently obligated will cover performance through December 31, 2013.

(d) This is an incrementally-funded contract and FAR 52.232-22 - "Limitation of Funds" applies.

## **SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

### **C.1 Title of Project**

This is a non-personnel services contract to provide Technical Assistance with Tsunami and Storm Surge Hazard Assessment at Nuclear Power Plant Sites in the United States.

### **C.2 Introduction**

The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform Technical Assistance with Tsunami and Storm Surge Hazard Assessment at Nuclear Power Plant Sites in the United States as defined in this statement of work (SOW), except for those items specified as Government-furnished property and services. The contractor shall perform to the standards in this contract/order.

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC or Commission) issued requests for information in accordance with the provisions of Sections 161.c, 103.b, and 182.a of the Atomic Energy Act of 1954, as amended (the Act); and the NRC regulation in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.54(f) to all operating reactor, construction permit and combined license holders to reevaluate flooding hazards at each site. As part of this reevaluation licensees will perform a tsunami and storm surge hazard assessment. In order to help facilitate these reevaluations and the staff's review of the licensee submittals, technical assistance is required with the development of a suitable model for tsunami and storm surge hazard assessments by developing applicable grid meshes, adequately characterizing the generating sources, and finally developing and running surge and tsunami model simulations. Additionally, technical assistance is required with the review of licensee submittals and potentially new reactor applications.

### **C.3 Background**

In response to the 2004 Sumatra tsunami and 2005 Hurricane Katrina, NRC formed tsunami and storm surge research programs, respectively, that are focused on developing modern hazard, risk informed, assessment techniques and additional guidance through cooperation with the National Oceanic and Atmospheric Administration (NOAA), U.S. Army Corps of Engineers (USACE), and the U.S. Geological Survey (USGS). This has already led to several technical reports and an update to the standard safety review plan (SRP; NUREG-0800). NOAA, USACE, and USGS contractors are also assisting with NRC reviews of tsunami and storm surge hazards as well as updates of regulatory guidance.

Following the accident at the Fukushima Dai-ichi nuclear power plant resulting from the March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami, the Consolidated Appropriations Act, Public Law 112-074, was signed into law on December 23, 2011. Section 402 of the law also requires a reevaluation of licensees' design basis for external hazards, and expands the scope to include other external events, as described below:

The U.S. Nuclear Regulatory Commission shall require reactor licensees to re-evaluate the seismic, tsunami, flooding, and other external hazards at their sites against current applicable Commission requirements and guidance for such licensees as expeditiously as possible, and thereafter when appropriate, as determined by the Commission, and require each licensee to respond to the Commission that the design basis for each reactor meets the requirements of its license, current applicable Commission requirements and guidance for such license. Based upon the evaluations conducted pursuant to this section and other information it deems relevant, the Commission shall require licensees to update the design basis for each reactor, if necessary.

Letters were issued to existing nuclear power plant operators, construction permit and combined license holders in accordance with the provisions of Sections 161.c, 103.b, and 182.a of the Atomic Energy Act of 1954, as amended (the Act), and the Commission regulation in 10 CFR Part 50, Section 50.54(f). Pursuant to these provisions of the Act or this regulation, existing nuclear power plant operators are required to provide further information to support the evaluation of the NRC staff recommendations for the Near-Term Task Force (NTTF) review of the accident at the Fukushima Dai-ichi nuclear facility. The review will enable the NRC staff to determine whether the nuclear plant licenses under their responsibility should be modified, suspended, or revoked.

The following sections provide a brief technical background on the specific hazards to be addressed by the work under this contract, including how these hazards have been considered by licensees in the past, what methods are currently used by applicants for Early Site Permit (ESP) and Combined Operating License (COL), and what methods the staff uses to review these hazards.

### **Storm Surge and Seiche**

As a result of the Gulf of Mexico storms of 2005, the USACE established and led a team, the Interagency Performance Evaluation Task Force (IPET) that included the Federal Emergency Management Agency (FEMA), NOAA, private sector, and academic researchers. Through the work of IPET, the following requirements for accurate simulations were recognized: inclusion of numerically simulated wave set-up, use of detailed grids to capture high-resolution bathymetric effects, and the application of improved near-coast meteorological models for hurricane evolution and wind-field behavior.

In 2009, the USACE, Engineer Research and Development Center/Coastal and Hydraulics Laboratory (ERDC CHL) was tasked by the NRC's Office of Nuclear Regulatory Research (RES) to review the NOAA Technical Report NWS 23, "Meteorological Criteria for Standard Project Hurricane and Probable Maximum Hurricane Wind fields, Gulf and East Coasts of the United States" and the NRC Regulatory Guide 1.59, "Design Basis Floods for Nuclear Power Plants". They found several assumptions in the PMH described in NWS 23 that are now known to be invalid and recommended that the PMH concept be updated in accordance with current theoretical concepts (e.g., Maximum Possible Intensity) and data (e.g., JPM method, estimation storm size as a conditional probability function of storm intensity in simulations and the range of uncertainty that is inherent in the storm wind fields).

The ERDC CHL review also found that the ocean model recommended in RG 1.59 is extremely limited by restrictions and simplifications made in order to make the problem computationally tractable given the computer resources available in the early to mid 1970's. The model assumptions and simplifications reduce the applicability and accuracy of the model. Thus the



NRC recommends using the current method of a modern coupled system of wind, wave, and coastal circulation models that properly define the physical system and include an appropriate non-linear coupling of the relevant processes be adopted. Based upon the USACE hurricane modeling system, it combines various wind models, the WAM offshore and STW AVE nearshore wave models, and the ADCIRC (Advanced CIRCulation Model For Oceanic, Coastal And Estuarine Waters) basin to channel scale unstructured grid circulation model. The modeling system is well validated and, in addition to being applied for USACE projects, has also been adopted by several FEMA regional offices for flood mapping and the NRC for estimating probable maximum floods due to storm surge from extreme events along the southern coast of the United States (NRC Office of Research, 2008-2012).

## **Tsunami**

Several tsunami computational models are currently used in the National Tsunami Hazard Mitigation Program, sponsored by NOAA, to produce tsunami inundation and evacuation maps for Alaska, California, Hawaii, Oregon, and Washington. The computational models include MOST (Method Of Splitting Tsunami), developed originally by researchers at the University of Southern California (1998); COMCOT (Cornell Multi-grid Coupled Tsunami Model), developed at Cornell University (1995); and TSUNAMI2, developed at Tohoku University in Japan (1996). All three models solve the same depth-integrated and 2D horizontal (2HD) non-linear shallow-water (NSW) equations with different finite-difference algorithms. There are a number of other tsunami models as well, including the finite element model ADCIRC (1995).

The shallow-water equation models have been shown to be reasonably accurate throughout the evolution of a tsunami, and are in widespread use today. However, they lack the capability of simulating dispersive waves, which could be the dominating features in landslide-generated tsunamis and for tsunamis traveling a long distance. Several high-order depth-integrated wave hydrodynamics models (Boussinesq models) are now available for simulating non-linear and weakly dispersive waves, such as COULWAVE (Cornell University Long and Intermediate Wave Modeling Package) (2002) and FUNWAVE (Fully Nonlinear Boussinesq Wave Model) (2000). The major difference between the two is their treatment of moving shoreline boundaries. In 2003, COULWAVE was applied to the 1998 tsunami with the landslide source; the results agreed well with field survey data. Recently, several finite element models also have been developed based on Boussinesq-type equations.

### **C.4 Objective**

The objective of this project is to provide the NRC with a technical basis for reviewing tsunami and storm surge/seiche site characteristics per the letters issued to existing nuclear power plant operators in accordance with the provisions of Sections 161.c, 103.b, and 182.a of the Atomic Energy Act of 1954, as amended (the Act), and the Commission regulation in 10 CFR Part 50, Section 50.54(f). The contractor will conduct independent and confirmatory hydrologic hazard analyses to support NRC hydrology safety reviews of the hazard evaluation submittals for operating nuclear power plants and new reactor applications for ESPs and/or COLs, as necessary. This will be accomplished using relevant data and acceptable deterministic and probabilistic methods for estimating design-basis tsunami and surge/seiche floods that reflect changes in the state of the art flood estimation since the 1977 publication of its Regulatory Guide 1.59, "Design Basis Floods for Nuclear Power Plants, especially for regions susceptible to severe storm and tsunami events.

## C.5 Scope of Work

### **C.5.1 Task 1: Kick-off Meeting and Review of Current Regulatory Guidance and Supporting Documents:**

Participate in an orientation/kick-off meeting with the NRC staff to discuss the scope of work, expectations, schedule, and contract management. The contract management discussion will include status/budget reporting requirements and technical documentation. Note that these requirements are subject to change throughout the contract performance period based on the needs of the NRC staff.

Review applicable regulatory guidance documents and supporting technical and regulatory materials to include, but not limited to:

- 10 CFR Part 100, specifically for identifying and evaluating hydrologic features of the site. 10 CFR 100.20(c), regarding requirements to consider physical site characteristics in site evaluations. 10 CFR 52.79(a)(1)(iii), for evaluation of the hydrologic characteristics of the proposed site with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated RG 1.102, "Flood Protection for Nuclear Power Plants," RG 1.59, "Design Basis Floods for Nuclear Power Plants."
- NUREG/CR 7046, "Design-Basis Flood Estimation for Site Characterization at Nuclear Power Plants in the United States of America"
- NUREG/CR 7134, "The Estimation of Very-Low Probability Hurricane storm Surges for Design and Licensing of Nuclear Power Plants in Coastal Areas"
- NUREG/CR 6966, "Tsunami Hazard Assessment at Nuclear Power Plant Sites in the United States of America"
- NUREG 0800, "U.S. Nuclear Regulatory Commission Standard Review Plan," Section 2.4 "Hydrology"
- "American National Standard for Determining Design Basis Flooding at Power Reactor Sites", ANSI/ANS-2.8, 1992. "Evaluation of Tsunami Sources with the Potential to Impact the U.S. Atlantic and Gulf Coasts: An Updated Report to the Nuclear Regulatory Commission", USGS, 2008.
- "Identification of Tsunami Deposits in the Geologic Record: Developing Criteria Using Recent Tsunami Deposits", Robert Peters and Bruce E. Jaffe, USGS, 2010
- "Database of Recent Tsunami Deposits". Robert Peters and Bruce E. Jaffe, USGS, 2010
- Scientific and Technical Issues in Tsunami Hazard Assessment of Nuclear Power Plant Sites", NOAA Technical Memorandum OAR PMEL-136, 2007

Prepare and submit an e-mail that includes: (1) confirmation that the current regulatory guidance and supporting technical documents have been reviewed; (2) a list of any documents reviewed beyond those listed above; (3) discussion of any issues the contractor may have encountered with obtaining or reviewing these documents; and (4) discussion of any points requiring further clarification or guidance from the staff.

STANDARD: Confirm that familiarization with the current regulatory guidance documents and supporting materials is complete. This confirmation includes, at a minimum, the attributes listed in Task 1.

Tasks 2 through 5 will be performed for each nuclear power plant site as required by the Contracting Officer's Representative (COR). Nuclear power plant sites may include, but are not limited to, those sites identified in Table 1 of this section.

### ***C.5.2 Task 2: Development of Storm Surge and Tsunami Grid Meshes***

- a. Develop ADCIRC Storm Surge and Tsunami Model Grid Meshes. This task involves development of the meshes, obtaining/interpolating LIDAR and topographic information onto the meshes, and running a series of test simulations for model stability. This will require leveraging work done on existing FEMA Region 2 and 3 projects and USGS new reactor safety reviews.
- b. Develop Nodal Attributes. Modeling potential storm surge and tsunami inundation will require the development of spatially-variable land characteristics because of the potential for land areas to become flooded. This task will require obtaining USGS land use coverage maps for any sites of interest, including but not limited to those sites listed in Table 1 at the end of this section, and developing spatially-variable friction, surface roughness, and surface canopy coefficient fields for each ADCIRC and tsunami model computational node.
- c. Develop Regional Wave Model Grid. For storm surge modeling, develop regional wave model grids over regions of the U.S. coast: (1) northern U.S. Atlantic coast; (2) southern U.S. Atlantic coast; (3) Gulf of Mexico; (4) California; and (5) Great Lakes (Michigan, Lake Erie and Lake Ontario).
- d. Develop and Test Coastal Grid. High resolution grids will be developed in the vicinity of each of the required nuclear power plant sites. This task will involve grid development and testing with a series of simulations to check model stability as well as simulations to validate with wave measurements.
- e. Update and Revise Grid Meshes. As necessary, update and revise the grid meshes based on new technical information or observations from the simulations or quality assurance/quality control (QA/QC) in Task 4, throughout the remainder of the contract.

As necessary, support periodic teleconferences with NRC staff and provide e-mails that describe task progress.

STANDARD: Progress reporting includes required information that follows the NRC guidance/template without deviation.

### **C.5.3 Task 3: Source Characterization**

- a. Select Surge Storm. This task will involve querying storm databases for historical events. Depending on the region, tropical and/or extra-tropical storms are considered in the selection process. The approach for the Gulf Coast and the southern Atlantic coast has been established as part of NRC's ongoing safety reviews of new reactor applications. The approach may need modifications for nor'easters on the northern Atlantic coast and a methodology will need to be developed for the Great Lakes and Pacific coasts (See NRC Public Website for new reactor ESP and COL applications).
- b. Develop and Validate Production Winds (tropical, extratropical, nor'easters, Great Lakes). This task will involve the application of a Planetary Boundary Layer (PBL) wind model to generate wind and pressure fields.
- c. Tsunami Source Characterization. This task will leverage prior USGS tsunami safety review projects in the Gulf of Mexico and southern Atlantic. For the Pacific Coast, need to investigate a wide range of tsunamigenic sources (e.g., farfield/nearfield earthquakes and submarine landslides).
- d. Update and Revise Source Characterizations. As necessary, update and revise the source characterizations based on new technical information or observations from the simulations or QA/QC in Task 4 throughout the remainder of the contract

As necessary, support periodic teleconferences with NRC staff and provide e-mails that describe task progress.

STANDARD: Progress reporting includes required information that follows the NRC guidance/template without deviation.

### **C.5.4 Task 4: Surge Model and Tsunami Model Simulations and QA/QC**

- a. Conduct Regional wave model, ADCIRC and coastal wave model simulations. Simulations will be made for all production simulations. This task involves setting up all model input parameter files, simulating the storm, performing a series of quality control checks on the model results, and archiving the data for future use.
- b. Conduct Tsunami model simulations. This task involves setting up all model input parameter files, simulating the tsunami wave, performing a series of quality control checks on the model results, and archiving the data for future use.

Data: In cases where the flood level exceeds the site grade elevation, surge, seiche and tsunami model current velocity, wave and wind data should be retained for an appropriate time period that will allow a detailed analysis of the impacts of wave runup, hydrostatic/hydrodynamic forces, debris and water-borne projectiles, and effects of sediment erosion and deposition on safety related structures.

- c. QA/QC. This task involves the summary of the model simulations and results obtained from the simulations; (2) additional discussion of the QA/QC metrics used in the development of the model and simulations run; and (3) additional information not stated here but critical to the development and successful simulation of the model including any technical issues identified and how they were addressed and any other items or issues of interest noted during the model simulations or QA/QC.
- d. Update and Revise Model Simulations. As necessary, update and revise the model simulations based on updates made to grid meshes (Task 2) and source characterizations (Task 3) throughout the remainder of the contract.

As necessary, support periodic teleconferences with NRC staff and provide e-mails that describe task progress. Prepare and submit a draft technical evaluation report (TER) per site following the guidance in Attachment 4 that documents work performed in Tasks 1-4.

STANDARD: Progress reporting and draft TER includes required information that follows the NRC guidance/template without deviation.

#### **C.5.5 Task 5: Independent/Confirmatory Analysis and Review Licensee Submittals**

Utilizing the model developed in Tasks 1 through 4 listed above review operating reactor submittal report and/or application for ESPs or COLs to determine that the design basis meets the requirements of its license or current applicable Commission requirements, etc., Determine outstanding issues and prepare Request for Additional Information (RAI). Review the RAI responses to determine if they adequately resolve the outstanding issues at the request of the staff. Participate in conference calls with the staff and licensee or applicant, as necessary, to clarify any technical issues.

Prepare and submit an updated draft TER per site following the guidance in Attachment 4. This involves documenting the findings in Tasks 1- 5 for each site in Table 1 and other sites of interest as identified by the staff. The report should include any RAIs identified by the contractor. Prepare a final TER that incorporates the resolution of RAIs as necessary.

STANDARD: TER that follows the NRC provided template without deviation. One round of comment incorporation is acceptable.

#### **C.5.6 Task 6: Support Meeting with Licensee/Applicant**

As necessary, prepare for and travel to the licensee/applicant's office or NRC offices and participate in an NRC review team to evaluate and discuss the licensee/applicant's responses to the unresolved issues identified in Task 5 to determine if the outstanding issues are adequately resolved.

Prepare a trip report to summarize the meeting discussions in a format to be provided in the Task 1 kick-off meeting.

STANDARD: Trip Report contains all required content. One round of comment incorporation is acceptable.

### **C.5.7 Task 7: ACRS Meetings and Hearings Proceedings Support**

As needed and requested by the staff, provide technical support to the staff during related Advisory Committee on Reactor Safety (ACRS) meetings and hearing proceedings related to discussing the results of the review of the licensee submittals as follows:

- a. Prepare presentation slides that address the issues to be presented to the ACRS or Atomic Safety and Licensing Board Panel (ASLBP).
- b. Participate in ACRS Meetings or Hearing. Assist COR in responding to questions or comments during the meetings or as follow up to the meetings.

**STANDARD:** Ensure presentation materials are reviewed and approved by the COR. Input to response, questions or comments from ACRS or Hearing are in a format approved by the COR.

Table 1: List of included sites of interest

<b>Site Name</b>	<b>Docket</b>
Brunswick	05000325, 05000324
Crystal River	05000302
DC Cook	05000315, 05000316
Davis-Besse	05000346
Diablo Canyon	05000323, 05000275
Ginna	05000244
Kewaunee	05000305
Millstone	05000336, 05000423
Oyster Creek	05000219
Palisades	05000255
Perry	05000440
Pilgrim	05000293
Point Beach	05000266, 05000301
Saint Lucie	05000335, 05000389
SanOnofre	05000361, 05000362
Seabrook	05000443

Surry	05000280, 05000281
Waterford	05000382
Turkey Point	05000250, 05000251
Grand Gulf	05000416
Fermi	05000341
Hope Creek	05000354, 05000366
FitzPatrick	05000333
Nine Mile Point	05000220, 05000410
Salem	05000272, 05000311
South Texas Project	05000498, 05000499
Indian Point	05000247, 05000286
Calvert Cliffs	05000317, 05000318
Calvert Cliffs COL	52-016
South Texas COL	52-012 and 52-013
Turkey Point COL	52-040 and 52-041
Levy County COL	52-029 and 52-030
PSEG ESP	52-043
Fermi COL	52-033
Nine Mile Point COL	52-038
Grand Gulf COL	52-024

**C.6 List Services/Deliverables**

**SCHEDULE AND DELIVERABLES**

<b>Task</b>	<b>Scheduled Completion</b>	<b>Deliverables</b>
<b>1</b> (Kick-off and Familiarization)	Three (3) weeks after award of contract.	Documentation on references reviewed as described in Section C.5
<b>2</b> (Model Grid Development)	One (1) month prior to contract expiration.	Progress reporting, teleconferences and meetings as required by COR.
<b>3</b> (Source Characterization)	One (1) month prior to contract expiration.	Progress reporting, teleconferences and meetings as required by COR.
<b>4</b> (Model Simulations)	One (1) month prior to contract expiration.	Progress reporting, teleconferences and meetings as required by COR.  Draft TER (for each site)
<b>5</b> (Licensee Submittal Review )	Two (2) months after receipt of licensee submittal or application.  One (1) month after receipt of final RAI responses.	Updated Draft TER and applicable RAIs (for each site).  Final TER that incorporates the resolution of RAIs (for each site).
<b>6</b> (Meeting with Licensee/Applicant)	Two (2) weeks after the trip.	Trip Report for each site, if required.



Task	Scheduled Completion	Deliverables
7 (ACRS Meetings/Hearing Proceedings Support)	<p>Four (4) weeks before the scheduled ACRS Meeting or Hearing.</p> <p>ACRS Meeting or Hearing Date To be determined.</p> <p>Four (4) weeks after completion of ACRS Meeting or Hearing, or as required by COR to meet due date set by ACRS or ASLBP.</p>	<p>Presentation Materials.</p> <p>Attend Meetings, if required.</p> <p>Input to Responses to Questions and Comments from ACRS meeting or Hearing.</p>
Monthly Letter Status Report (in accordance with Section C.9 of this SOW)	20 <sup>th</sup> of each month throughout the contract period.	Monthly Letter Status Report.

\*These Work Schedules are subject to change by the NRC Contracting Officer (CO) to support the needs of the NRC Licensing Program Plan.

Any modifications to the scope of work, cost or period of performance of this contract must be issued by the CO and will be coordinated with the NRO COR.

#### Assumptions and Understanding

The level of effort for Task 1 is based on the assumption that the contractor is familiar with the review procedures of SRP Sections 2.4.5 (Surge and Seiche) and 2.4.6 (Tsunami Hazard). The kick-off meeting will involve local travel or be held via teleconference, therefore, no effort for travel is required.

The level of effort for Task 2 is based on the initial grid development per site. It is also assumed that based on new technical information or the model simulations and QA/QC in Task 4, these grid meshes will be continuously updated for the life of the contract as technically appropriate.

The level of effort for Task 3 is based on the initial development per site. It is also assumed that based on new technical information or the model simulations and QA/QC in Task 4, these source characterizations will be continuously updated for the life of the contract as technically appropriate.

The level of effort for Task 4 is based on the initial development per site. It is also assumed that the model simulations and QA/QC will be continuously updated based on updates made to the grid meshes or source characterizations for the life of the contract, as technically appropriate.

The level of effort for Task 5 is based on the assumption that the contractor will be asked to assist in the review of approximately 21 submittals.

It is assumed that the contractor has access to the NRC furnished material that is publicly available on the Internet.

It is understood that the scope of the review consists of conference calls with the NRC staff, and with the NRC staff and the applicant, to discuss unresolved issues in an attempt to obtain additional information or reach resolution.

For Task 5, the primary deliverable, or output of these regulatory reviews (per site), shall be the Technical Evaluation Reports (TER). These TERs will serve as input to the NRC staff's Safety Evaluation Report (SER) which will document the NRC's technical, safety, and legal basis for determining whether the nuclear plant licenses should be modified, suspended, or revoked. The TER must provide sufficient information to adequately explain the NRC staff's rationale for why there is *reasonable assurance* that public health and safety is protected. The TER, and ultimately the SER, should be written in a manner whereby a person with a technical (non-nuclear) background and unfamiliar with the applicant's request could understand the basis for the staff's conclusions. The TER format is described in Attachment 2 to the contract.

#### **C.8 Other Direct Costs (Travel)**

The following travel may be required to complete the effort described in this SOW:

- \*Two, 2-person, 5-day (including travel) working meeting with Applicant (Task 6)
- \*Two, 2-person, 3-day meetings (including travel), for two ACRS meetings and/or Hearing Proceedings (Task 7)
- \*At the discretion of the NRC COR, meeting may be conducted via telephone or video conference.

Contractor will be authorized travel expenses consistent with the substantive provisions of the Federal Travel Regulation (FTR) and the limitation of funds specified in this contract/order. All travel requires written Government approval from the CO, unless otherwise delegated to the COR.

Travel will be reimbursed in accordance with FAR 31.205-46, "Travel costs" and the General Services Administration's Federal Travel Regulations at: <http://www.gsa.gov/portal/content/104790>.

#### **C.9 Reporting Requirements**

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

The contractor shall provide the deliverables as described below and in Sections C.5 and C.6 of this SOW in hard copy (upon request) and electronic formats. The electronic format shall be provided in MS Word or other word processing software approved by the COR. For each deliverable listed in Section C.6, the contractor shall provide one hard copy (upon request) and electronic copy to the COR and CO. The schedule for deliverables shall be contained in the approved project plan for this effort.

In all correspondence, include identifying information: JCN No.: Q-\_\_\_\_; Technical Assignment Control No. (TAC), if applicable, \_\_\_\_\_ Contract No.: \_\_; the licensee: \_\_\_\_\_; and, the site: \_\_.

#### Monthly Status Report

A technical progress report and financial status report shall be provided by the contractor on the 20<sup>th</sup> of each month in accordance with the template in Attachment 5. This report will be used by the Government to assess the adequacy of the resources proposed by the contractor to accomplish the work contained in this SOW and provide status of contractor progress in achieving tasks and producing deliverables. The report shall include contract/order summary information, and for each assigned site: work completed during the specified period, milestone schedule information, problem resolution, travel plans, plans for next reporting period, staff hour summary and summary of license fee costs.

#### **C.10 Government-Furnished Information**

The following NRC furnished materials will be provided to the contractor together with SOW after award of contract:

- a. CD-ROM containing relevant Sections of the Site Technical Report for the applicable nuclear power plants.
- b. CD-ROM containing the Final Safety Evaluation Report or the DCD, as appropriate.

The above listed items may be furnished to the contractors for the sites listed in Table 1 on an as-needed basis depending on the level of review assistance required of the contractor by the staff.

#### **C.11 Access to Government Property and Facilities**

The contractor is permitted access to the Government's facilities on an escort basis.

#### **C.12 Place of Performance**

The work to be performed under this contract will be primarily performed at the contractor's facility. The contractor may be required to perform at the licensee's office or site and NRC Headquarters to support meeting(s) with the NRC staff and/or licensee/applicant.

#### **C.13 Security Requirements**

All work under this contract is expected to be unclassified.

#### **C.14 Postaward Orientation (kickoff) or Periodic Progress Meetings**

The contractor agrees to attend any post-award conference convened by the contracting activity or contract administration office in accordance with FAR Subpart 42.5.

The CO, COR, and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the CO will apprise the contractor of how the government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues.

The contractor may be required to meet with the COR and CO at the beginning of contract performance. Meetings will be scheduled as needed. The contractor may request meetings whenever a discrepancy exists and no mutual resolution is apparent. The written minutes of these meetings shall be signed by the contractor's manager, CO, and COR. If the contractor does not concur with the minutes, he/she shall state any areas of non-concurrence within seven days of receipt of the signed minutes.

#### **C.15 Key Personnel Qualification Requirements**

The contractor shall provide individuals who have the required educational background and work experience to meet the objectives of the work specified in this contract. Specific technical qualifications for this effort include:

- Surge and Seiche  
Senior Civil/Hydraulic Engineers and/or Physical Oceanographer with work experience in performing site characterization, statistical surge and seiche analysis, and safety analysis of nuclear power plants using advanced surface water hydrology methods. At least a doctoral degree in the engineering/science discipline; professional engineering certification or license as applicable; knowledge of risk assessments, power plant operations and systems, and severe accidents is required.
- Tsunami  
Senior Civil/Hydraulic Engineers and/or Physical Oceanographers and geologist/geophysicist with work experience in performing site characterization, tsunami source characterization, and safety analysis of nuclear power plants using advanced surface water hydrology methods. A doctoral degree in the engineering/science discipline; professional engineering certification or license as applicable is required; knowledge of risk assessments, power plant operations and systems, and severe accidents is required.

The contractor shall assign provide a project manager (PM) or contract manager, , to oversee the effort and ensure the timely submittal of quality deliverables so that all information is accurate and complete. This individual shall serve as primary contact. The PM shall possess, at a minimum, a Bachelor's Degree in Engineering or Science and a minimum of 10 years of project management experience. If subcontractors are proposed, the PM shall have significant subcontract management experience.

The NRC will rely on representations made by the contractor concerning the qualifications of the personnel assigned to this contract, 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 contract (principal investigators, technical staff, employees, consultants, specialists or subcontractors) shall describe that individual's experience in applying his or her area of technical specialization to work in the proposed area. The use of particular personnel on this contract is subject to approval by NRC COR. This includes any proposed changes to key personnel during the life of the contract.

## **SECTION D - PACKAGING AND MARKING**

### **D.1 PACKAGING AND MARKING (AUG 2011)**

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

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

(c) Additional packaging and/or marking requirements are as follows:

### **D.2 BRANDING (AUG 2012)**

The Contractor is required to include 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 (NRO), under Contract/order number.

**SECTION E - INSPECTION AND ACCEPTANCE****E.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE**

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

NUMBER	TITLE	DATE
52.246-6	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) INSPECTION--TIME-AND-MATERIALS AND LABOR-HOUR	MAY 2001

**SECTION F - DELIVERIES OR PERFORMANCE****F.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE**

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

NUMBER DATE	TITLE	
52.242-15	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) STOP-WORK ORDER ALTERNATE I (APR 1984)	AUG 1989
52.247-34	F.O.B. DESTINATION	NOV 1991
52.247-48	F.O.B. DESTINATION--EVIDENCE OF SHIPMENT	FEB 1999

**F.2 2052.211-72 FINANCIAL STATUS REPORT (OCT 1999)**

The contractor shall provide a monthly Financial Status Report (FSR) to the project officer and the contracting officer. The FSR shall include the acquisition of, or changes in the status of, contractor-held property acquired with government funds valued at the time of purchase at \$50,000 or more. Whenever these types of property changes occur, the contractor shall send a copy of the report to the Chief, Property and Acquisition Oversight Branch, Office of Administration. The report is due on the 20<sup>th</sup> of each month and must identify the title of the project, the contract number, the appropriate financial tracking code (e.g., Job Code Number or JCN) specified by the NRC Project Officer, project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task:

- (a) Total estimated contract amount.
- (b) Total funds obligated to date.
- (c) Total costs incurred this reporting period.
- (d) Total costs incurred to date.
- (e) Detail of all direct and indirect costs incurred during the reporting period for the entire contract or each task, if it is a task ordering contract.
- (f) Balance of obligations remaining.
- (g) Balance of funds required to complete contract/task order.
- (h) Contractor Spending Plan (CSP) status: A revised CSP is required with the Financial Status Report whenever the contractor or the contracting officer has reason to believe that the



total cost for performance of this contract will be either greater or substantially less than what had been previously estimated.

(1) Projected percentage of completion cumulative through the report period for the project/task order as reflected in the current CSP.

(2) Indicate significant changes in the original CSP projection in either dollars or percentage of completion. Identify the change, the reasons for the change, whether there is any projected overrun, and when additional funds would be required. If there have been no changes to the original NRC-approved CSP projections, a written statement to that effect is sufficient in lieu of submitting a detailed response to item "h".

(i) Property status:

(1) List property acquired for the project during the month with an acquisition cost between \$500 and \$49,999. Give the item number for the specific piece of equipment.

(2) Provide a separate list of property acquired for the project during the month with an acquisition cost of \$50,000 or more. Provide the following information for each item of property: item description or nomenclature, manufacturer, model number, serial number, acquisition cost, and receipt date. If no property was acquired during the month, include a statement to that effect. The same information must be provided for any component or peripheral equipment which is part of a "system or system unit."

(3) For multi-year projects, in the September monthly financial status report provide a cumulative listing of property with an acquisition cost of \$50,000 or more showing the information specified in paragraph (i)(2) of this clause.

(4) In the final financial status report provide a closeout property report containing the same elements as described above for the monthly financial status reports, for all property purchased with NRC funds regardless of value unless title has been vested in the contractor. If no property was acquired under the contract, provide a statement to that effect. The report should note any property requiring special handling for security, health, safety, or other reasons as part of the report.

(j) Travel status: List the starting and ending dates for each trip, the starting point and destination, and the traveler(s) for each trip.

(k) If the data in this report indicates a need for additional funding beyond that already obligated, this information may only be used as support to the official request for funding required in accordance with the Limitation of Cost (LOC) Clause (FAR 52.232-20) or the Limitation of Funds (LOF) Clause FAR 52.232-22.

**F.3 PLACE OF DELIVERY--REPORTS (AUG 2011)**

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

a. Name: Henry Jones (1 hard copy)  
Contracting Officer's Representative (COR)  
U.S. Nuclear Regulatory Commission  
Mail Stop: TWFN-7C26  
Washington, DC 20555

b. Electronic copies to:

Name: Claudia G. Melgar (1 hard copy)  
Contracting Officer (CO)  
U.S. Nuclear Regulatory Commission  
Div. of Contracts  
Mail Stop: 3WFN-05-C64MP  
Washington, DC 20555

**SECTION G - CONTRACT ADMINISTRATION DATA****G.1 2052.215-71 PROJECT OFFICER AUTHORITY (NOVEMBER 2006)**

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

Name: **Henry Jones**

Contracting Officer's Representative (COR)  
U.S. Nuclear Regulatory Commission  
Mail Stop: TWFN-7C26  
Washington, DC 20555

Telephone Number: 301-415-1463

(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 (SOW) or changes to specific travel identified in the SOW), fills in details, or otherwise serves to accomplish the contractual SOW.

(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, approval of 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 as defined in paragraph (c) of this section, the contractor may not proceed but shall notify the contracting officer in writing within five (5) working days after the receipt of any instruction or direction and shall request the contracting officer to modify the contract accordingly. Upon receiving the notification from the contractor, the contracting officer shall issue an appropriate contract modification or advise the contractor in writing that, in the contracting officer's opinion, the technical direction is within the scope of this article and does not constitute a change under the "Changes" clause.

(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 thereto 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.

(4) Assist the contractor in obtaining the badges for the contractor personnel.

(5) Immediately notify the Security Branch, Division of Facilities and Security (SB/DFS) (via e-mail) when a contractor employee no longer requires access authorization and return of any NRC issued badge to SB/DFS within three days after their termination.

(6) Ensure that all contractor employees that require access to classified Restricted Data or National Security Information or matter, access to sensitive unclassified information (Safeguards, Official Use Only, and Proprietary information) access to sensitive IT systems or data, unescorted access to NRC controlled buildings/space, or unescorted access to protected and vital areas of nuclear power plants receive approval of SB/DFS prior to access in accordance with Management Directive and Handbook 12.3.

(7) For contracts for the design, development, maintenance or operation of Privacy Act Systems of Records, obtain from the contractor as part of closeout procedures, written certification that the contractor has returned to NRC, transferred to the successor contractor, or destroyed at the end of the contract in accordance with instructions provided by the NRC Systems

Manager for Privacy Act Systems of Records, all records (electronic or paper) which were created, compiled, obtained or maintained under the contract.

### **G.2 2052.215-77 TRAVEL APPROVALS AND REIMBURSEMENT (OCT 1999)**

(a) 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 before beginning travel.

(b) The contractor must receive written approval from the NRC Project Officer before taking travel that 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).

(c) The contractor will be reimbursed only for those 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 Limitations of Cost clause of this contract when, at any time, the contractor learns that travel expenses will cause the contractor to exceed the estimated costs specified in the Schedule.

(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, shall 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.

### **G.3 ELECTRONIC PAYMENT (JUN 2013)**

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

To receive payment, the contractor shall prepare invoices in accordance with NRC's Billing Instructions. Claims shall be submitted on the payee's letterhead, invoice, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other than Personal," and Standard Form 1035, "Public Voucher for Purchases Other than Personal - Continuation Sheet." The preferred method of submitting invoices is electronically to the Nuclear Regulatory Commission at [NRCPayments@nrc.gov](mailto:NRCPayments@nrc.gov). If the contractor submits a hard copy of the invoice, it shall be submitted to the following address:

NRC Payments  
U.S. Nuclear Regulatory Commission  
One White Flint North  
Mailstop O3-E17A  
11555 Rockville Pike  
Rockville, MD 20852-2738

**SECTION H - SPECIAL CONTRACT REQUIREMENTS****H.1 2052.209-72 CONTRACTOR ORGANIZATIONAL CONFLICTS OF INTEREST (JAN 1993)**

(a) Purpose. The primary purpose of this clause is to aid in ensuring that the contractor:

(1) Is not placed in a conflicting role because of current or planned interests (financial, contractual, organizational, or otherwise) which relate to the work under this contract; and

(2) Does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.

(b) Scope. The restrictions described apply to performance or participation by the contractor, as defined in 48 CFR 2009.570-2 in the activities covered by this clause.

(c) Work for others.

(1) Notwithstanding any other provision of this contract, during the term of this contract, the contractor agrees to forego entering into consulting or other contractual arrangements with any firm or organization the result of which may give rise to a conflict of interest with respect to the work being performed under this contract. The contractor shall ensure that all employees under this contract abide by the provision of this clause. If the contractor has reason to believe, with respect to itself or any employee, that any proposed consultant or other contractual arrangement with any firm or organization may involve a potential conflict of interest, the contractor shall obtain the written approval of the contracting officer before the execution of such contractual arrangement.

(2) The contractor may not represent, assist, or otherwise support an NRC licensee or applicant undergoing an NRC audit, inspection, or review where the activities that are the subject of the audit, inspection, or review are the same as or substantially similar to the services within the scope of this contract (or task order as appropriate) except where the NRC licensee or applicant requires the contractor's support to explain or defend the contractor's prior work for the utility or other entity which NRC questions.

(3) When the contractor performs work for the NRC under this contract at any NRC licensee or applicant site, the contractor shall neither solicit nor perform work in the same or similar technical area for that licensee or applicant organization for a period commencing with the award of the task order or beginning of work on the site (if not a task order contract) and ending one year after completion of all work under the associated task order, or last time at the site (if not a task order contract).

(4) When the contractor performs work for the NRC under this contract at any NRC licensee or applicant site,

(i) The contractor may not solicit work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate.

(ii) The contractor may not perform work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate, and for one year thereafter.

(iii) Notwithstanding the foregoing, the contracting officer may authorize the contractor to solicit or perform this type of work (except work in the same or similar technical area) if the contracting officer determines that the situation will not pose a potential for technical bias or unfair competitive advantage.

(d) Disclosure after award.

(1) The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in this contract, that it does not have any organizational conflicts of interest as defined in 48 CFR 2009.570-2.

(2) The contractor agrees that if, after award, it discovers organizational conflicts of interest with respect to this contract, it shall make an immediate and full disclosure in writing to the contracting officer. This statement must include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. The NRC may, however, terminate the contract if termination is in the best interest of the Government.

(3) It is recognized that the scope of work of a task-order-type contract necessarily encompasses a broad spectrum of activities. Consequently, if this is a task-order-type contract, the contractor agrees that it will disclose all proposed new work involving NRC licensees or applicants which comes within the scope of work of the underlying contract. Further, if this contract involves work at a licensee or applicant site, the contractor agrees to exercise diligence to discover and disclose any new work at that licensee or applicant site. This disclosure must be made before the submission of a bid or proposal to the utility or other regulated entity and must be received by the NRC at least 15 days before the proposed award date in any event, unless a written justification demonstrating urgency and due diligence to discover and disclose is provided by the contractor and approved by the contracting officer. The disclosure must include the statement of work, the dollar value of the proposed contract, and any other documents that are needed to fully describe the proposed work for the regulated utility or other regulated entity. NRC may deny approval of the disclosed work only when the NRC has issued a task order which includes the technical area and, if site-specific, the site, or has plans to issue a task order which includes the technical area and, if site-specific, the site, or when the work violates paragraphs (c)(2), (c)(3) or (c)(4) of this section.

(e) Access to and use of information.

(1) If in the performance of this contract, the contractor obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. Section 552a (1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), the contractor agrees not to:

(i) Use this information for any private purpose until the information has been released to the public;

(ii) Compete for work for the Commission based on the information for a period of six months after either the completion of this contract or the release of the information to the public, whichever is first;

(iii) Submit an unsolicited proposal to the Government based on the information until one year after the release of the information to the public; or

(iv) Release the information without prior written approval by the contracting officer unless the information has previously been released to the public by the NRC.

(2) In addition, the contractor agrees that, to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. Section 552a (1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), or other confidential or privileged technical, business, or financial information under this contract, the contractor shall treat the information in accordance with restrictions placed on use of the information.

(3) Subject to patent and security provisions of this contract, the contractor shall have the right to use technical data it produces under this contract for private purposes provided that all requirements of this contract have been met.

(f) Subcontracts. Except as provided in 48 CFR 2009.570-2, the contractor shall include this clause, including this paragraph, in subcontracts of any tier. The terms contract, contractor, and contracting officer, must be appropriately modified to preserve the Government's rights.

(g) Remedies. For breach of any of the above restrictions, or for intentional nondisclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations that necessarily imply bad faith, the Government may terminate the contract for default, disqualify the contractor from subsequent contractual efforts, and pursue other remedies permitted by law or this contract.

(h) Waiver. A request for waiver under this clause must be directed in writing to the contracting officer in accordance with the procedures outlined in 48 CFR 2009.570-9.

(i) Follow-on effort. The contractor shall be ineligible to participate in NRC contracts, subcontracts, or proposals therefor (solicited or unsolicited), which stem directly from the contractor's performance of work under this contract. Furthermore, unless so directed in writing by the contracting officer, the contractor may not perform any technical consulting or management support services work or evaluation activities under this contract on any of its products or services or the products or services of another firm if the contractor has been substantially involved in the development or marketing of the products or services.

(1) If the contractor, under this contract, prepares a complete or essentially complete statement of work or specifications, the contractor is not eligible to perform or participate in the initial contractual effort which is based on the statement of work or specifications. The contractor may not incorporate its products or services in the statement of work or specifications unless so directed in writing by the contracting officer, in which case the restrictions in this paragraph do not apply.

(2) Nothing in this paragraph precludes the contractor from offering or selling its standard commercial items to the Government.



**H.2 2052.215-70 KEY PERSONNEL (JAN 1993)**

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

Key Personnel Name	Title
R. (Bruce) Taylor, Ph.D., P.E.	Senior Technical Reviewer
James Marino, P.E., D.CE	Project Manager
Christopher Bender, Ph.D., P.E., D.CE	Project Manager, Subject Matter Expert
Patrick Lynett, Ph.D.	Subject Matter Expert
James Houston, Ph.D.	Senior Technical Reviewer
Robert Weiss, Ph.D.	Subject Matter Expert
William Miller, Ph.D., P.E.	Subject Matter Expert
Michael Kabiling, Ph.D., P.E., CFM	Subject Matter Expert
Donald Resio, Ph.D.	Subject Matter Expert, Senior Technical Reviewer
William Dally, Ph.D.	Subject Matter Expert
Peter Bacopoulos, Ph.D., E.I.	Subject Matter Expert
Vincent Cardone, Ph.D.	Subject Matter Expert
Andrew Cox	Subject Matter Expert
Andrew Blystra, P.E.	Subject Matter Expert
Myron Fliegel, Ph.D.	Subject Matter Expert, Senior Technical Reviewer
James Scherrer	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.

### **H.3 2052.242-70 RESOLVING NRC CONTRACTOR DIFFERING PROFESSIONAL OPINIONS (AUG 2007)**

(a) The Nuclear Regulatory Commission's (NRC) policy is to support the contractor's expression of professional health and safety related concerns associated with the contractor's work for NRC that may differ from a prevailing NRC staff view, disagree with an NRC decision or policy position, or take issue with proposed or established agency practices. An occasion may arise when an NRC contractor, contractor's personnel, or subcontractor personnel believes that a conscientious expression of a competent judgment is required to document such concerns on matters directly associated with its performance of the contract. The NRC's policy is to support these instances as Differing Professional Opinions (DPOs).

(b) The procedure that will be used provides for the expression and resolution of differing professional opinions (DPOs) of health and safety-related concerns associated with the mission of the agency by NRC contractors, contractor personnel or subcontractor personnel on matters directly associated with its performance of the contract. This procedure is found in Clause 2052.242 71 of this document. The contractor shall provide a copy of the NRC DPO procedure to all of its employees performing under this contract and to all subcontractors who shall, in turn, provide a copy of the procedure to its employees. The prime contractor or subcontractor shall submit all DPOs received but need not endorse them.

### **H.4 2052.242-71 PROCEDURES FOR RESOLVING NRC CONTRACTOR DIFFERING PROFESSIONAL OPINIONS (OCT 1999)**

(a) The following procedure provides for the expression and resolution of differing professional opinions (DPOs) of health and safety-related concerns of NRC contractors and contractor personnel on matters connected to the subject of the contract. Subcontractor DPOs must be submitted through the prime contractor. The prime contractor or subcontractor shall submit all DPOs received but need not endorse them.

(b) The NRC may authorize up to ten reimbursable hours for the contractor to document, in writing, and discuss, with the DPO panel, a DPO by the contractor, the contractor's personnel, or subcontractor personnel. The contractor shall not be entitled to any compensation for effort on a DPO which exceeds the specified ten hour limit.

(c) The contractor shall notify the contracting officer before incurring costs to document a DPO. The contractor shall not begin any work on the DPO before receiving a modification to the contract from the NRC contracting officer.

The contractor shall first determine whether there are sufficient funds obligated under the contract which are available to cover the costs of writing a DPO. If there are insufficient obligated funds under the contract, the contractor shall request additional funding from the NRC contracting officer to cover the costs of preparing the DPO. If there are sufficient obligated funds under the contract, the contractor shall notify the contracting officer so that a modification can be issued that specifies the amount of funding required for the DPO.

(d) Contract funds shall not be authorized to document a differing perspective in the following examples where the use of this NRC contractor DPO process is inappropriate:

(1) Issues involving allegations of wrongdoing that should be appropriately addressed directly to the NRC Office of the Inspector General (OIG);

(2) Issues submitted anonymously. However, safety significant issues that are submitted anonymously should be addressed under NRC's Allegation Program which can be found at: [http://www.nrc.gov/about\\_nrc/regulatory/allegations\\_resp.html](http://www.nrc.gov/about_nrc/regulatory/allegations_resp.html)

(3) Issues that are deemed to be frivolous or otherwise not in accordance with the guidance included in NRC Management Directive (MD) 10.159, "The NRC Differing Professional Opinions Program," which can be found at: [http://www.nrc.gov/reading\\_rm/doc\\_collections/management\\_directives/volumes/vol\\_10.html](http://www.nrc.gov/reading_rm/doc_collections/management_directives/volumes/vol_10.html)

(4) Issues that have already been considered, addressed, or rejected by the NRC under these procedures, absent significant new information;

(5) Issues that are considered premature because they are still under staff review by the NRC.

(e) This procedure does not provide anonymity, nor does it provide for confidential submittal (as addressed in MD 10.159). Individuals desiring anonymity or confidentiality should contact the NRC OIG or submit the information under NRC's Allegation Program, as appropriate.

(f) Prior to submitting a DPO, the contractor or the contractor's employees are encouraged to engage in informal discussions with appropriate NRC personnel (which may include NRC staff directly involved with the issues that are the subject of concerns and the NRC Project Officer.) The contractor hereby agrees that the contractor authorizes its employees to engage in informal discussions with the appropriate NRC personnel for purposes of this clause. If the informal discussions do not resolve the contractor or the contractor's employees' concerns, the contractor shall notify the contracting officer so that a modification to the contract can be issued that authorizes the expenditure of funds for the DPO.

The contractor may initiate the DPO process by submitting a written statement directly to the NRC Differing Professional Opinions Program Manager (DPOPM), Office of Enforcement, with a copy to the Contracting Officer, Division of Contracts, Office of Administration. Each DPO submitted will be evaluated on its own merits. (Refer to (c) above before incurring any costs to initiate the DPO process.)

(g) The DPO, while being brief, must contain the following as it relates to the subject matter of the contract:

(1) A summary of the prevailing NRC view, existing NRC decision or stated position, or the proposed or established NRC practice.

(2) A description of the submitter's views and how they differ from any of the above items.

(3) The rationale for the submitter's views, including an assessment of the consequences should the submitter's position not be adopted by NRC.

(4) References to, or copies of, relevant documents.

(h) The DPOPM will screen the DPO and notify the submitter and the contractor if the DPO is accepted. Returned DPOs will identify the reason for return.

(i) The DPOPM will forward the DPO to the Office Director or Regional Administrator responsible for the contract for disposition.

(j) The Office Director or Regional Administrator will establish an ad hoc panel of NRC employees to review the DPO.

(k) The panel will interview the submitter to ensure that the panel understands the issues and to define the scope of the review. The panel will gather information, review documents, and conduct interviews to support a thorough review. The panel will provide a written report of its findings to the Office Director or Regional Administrator and to the Contracting Officer, which includes a recommended course of action.

(l) The Office Director or Regional Administrator will consider the DPO panel's report, make a decision on the DPO and provide a written decision to the contractor and the Contracting Officer. The DPO is considered final and closed when the DPO Decision is issued.

(m) A summary of the issue and its disposition will be included in the NRC Weekly Information Report.

(n) DPOs will be dispositioned in accordance with the time frames identified in MD 10.159.

(o) The DPOPM will track follow up actions and notify the contractor of any schedule revisions.

(p) The availability of DPO records will reflect the submitter's wishes (e.g., whether the records should or should not be made public and whether the submitter's identity is redacted) and be consistent with NRC practices for making records available to the public.

(q) For purposes of the contract, the DPO shall be considered a deliverable under the contract.

#### **H.5 DENIAL OF FEDERAL BENEFITS TO INDIVIDUALS CONVICTED OF DRUG TRAFFICKING OR POSSESSION (AUG 2011)**

In the event that an award is made to an individual, Section 5301 of the Anti-Drug Abuse Act of 1988 (P.L. 100-690), codified at 21 U.S.C. 862, authorizes denial of Federal benefits such as grants, contracts, purchase orders, financial aid, and business and professional licenses to individuals convicted of drug trafficking or possession.

#### **H.6 ANNUAL AND FINAL CONTRACTOR PERFORMANCE EVALUATIONS (AUG 2011)**

Annual and final evaluations of contractor performance under this contract will be prepared in accordance with FAR Subpart 42.15, "Contractor Performance Information," normally at or near the time the contractor is notified of the NRC's intent to exercise the contract option. If the multi-year contract does not have option years, then an annual evaluation will be prepared (state time for annual evaluation). Final evaluations of contractor performance will be prepared at the expiration of the contract during the contract closeout process.

The Contracting Officer will transmit the NRC Contracting Officer's Representative's (COR) annual and final contractor performance evaluations to the contractor's Project Manager, unless otherwise instructed by the contractor. The contractor will be permitted thirty days to review the document and submit comments, rebutting statements, or additional information.

Where a contractor concurs with, or takes no exception to an annual performance evaluation, the Contracting Officer will consider such evaluation final and releasable for source selection purposes. Disagreements between the parties regarding a performance evaluation will be referred to an individual one level above the Contracting Officer, whose decision will be final.

The Contracting Officer will send a copy of the completed evaluation report, marked "Source Selection Information", to the contractor's Project Manager for their records as soon as practicable after it has been finalized. The completed evaluation report also will be used as a tool to improve communications between the NRC and the contractor and to improve contract performance.

The completed annual performance evaluation will be used to support future award decisions in accordance with FAR 42.1502 and 42.1503. During the period the information is being used to provide source selection information, the completed annual performance evaluation will be released to only two parties - the Federal government personnel performing the source selection evaluation and the contractor under evaluation if the contractor does not have a copy of the report already.

## **H.7 COMPLIANCE WITH U.S. IMMIGRATION LAWS AND REGULATIONS (AUG 2011)**

NRC contractors are responsible to ensure that their alien personnel are not in violation of United States immigration laws and regulations, including employment authorization documents and visa requirements. Each alien employee of the Contractor must be lawfully admitted for permanent residence as evidenced by Permanent Resident Form I-551 (Green Card), or must present other evidence from the U.S. Department of Homeland Security/U.S. Citizenship and Immigration Services that employment will not affect his/her immigration status. The U.S. Citizenship and Immigration Services provides information to contractors to help them understand the employment eligibility verification process for non-US citizens. This information can be found on their website, <http://www.uscis.gov/portal/site/uscis>.

The NRC reserves the right to deny or withdraw Contractor use or access to NRC facilities or its equipment/services, and/or take any number of contract administrative actions (e.g., disallow costs, terminate for cause) should the Contractor violate the Contractor's responsibility under this clause.

## **H.8 SECURITY REQUIREMENTS RELATING TO THE PRODUCTION OF REPORT(S) OR THE PUBLICATION OF RESULTS UNDER CONTRACTS, AGREEMENTS, AND GRANTS (AUG 2011)**

### **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, OOU-Allegation Information or OOU-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.

#### **H.9 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES (AUG 2011)**

(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.

**H.10 GREEN PURCHASING (JUN 2011)**

(a) In furtherance of the sustainable acquisition goals of Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance" products and services provided 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, contain recycled content, or are non-toxic or less toxic alternatives, where such products and services meet agency performance requirements.  
<http://www.fedcenter.gov/programs/eo13514/>

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

**H.11 USE OF AUTOMATED CLEARING HOUSE (ACH) ELECTRONIC PAYMENT/REMITTANCE ADDRESS (AUG 2011)**

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

**H.12 AWARD NOTIFICATION AND COMMITMENT OF PUBLIC FUNDS (AUG 2011)**

(a) All offerors will receive preaward and postaward notices in accordance with FAR 15.503.

(b) It is also brought to your attention that the contracting officer is the only individual who can legally obligate funds or commit the NRC to the expenditure of public funds in connection with this procurement. This means that unless provided in a contract document or specifically authorized by the contracting officer, NRC technical personnel may not issue contract modifications, give formal contractual commitments, or otherwise bind, commit, or obligate the NRC contractually. Informal unauthorized commitments, which do not obligate the NRC and do not entitle the contractor to payment, may include:

- (1) Encouraging a potential contractor to incur costs prior to receiving a contract;
- (2) Requesting or requiring a contractor to make changes under a contract without formal contract modifications;
- (3) Encouraging a contractor to incur costs under a cost-reimbursable contract in excess of those costs contractually allowable; and
- (4) Committing the Government to a course of action with regard to a potential contract, contract change, claim, or dispute.



**PART II - CONTRACT CLAUSES****SECTION I - CONTRACT CLAUSES****I.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE**

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

NUMBER	TITLE	DATE
	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)	
52.202-1	DEFINITIONS	JAN 2012
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	APR 1984
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	SEP 2006
52.203-7	ANTI-KICKBACK PROCEDURES	OCT 2010
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	OCT 2010
52.203-13	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT	APR 2010
52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER	MAY 2011
52.204-10	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS	AUG 2012
52.204-13	CENTRAL CONTRACTOR REGISTRATION MAINTENANCE	DEC 2012
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	DEC 2010
52.210-1	MARKET RESEARCH	APR 2011
52.215-2	AUDIT AND RECORDS--NEGOTIATION	OCT 2010
52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT 1997
52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT 1997
52.216-29	TIME-AND-MATERIALS/LABOR-HOUR PROPOSAL REQUIREMENTS--NON-COMMERCIAL ITEM ACQUISITION WITH ADEQUATE PRICE COMPETITION	FEB 2007
52.217-2	CANCELLATION UNDER MULTIYEAR CONTRACTS	OCT 1997

52.217-8	OPTION TO EXTEND SERVICES	NOV 1999
52.219-6	NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE	NOV 2011
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	JAN 2011
52.219-14	LIMITATIONS ON SUBCONTRACTING	NOV 2011
52.222-3	CONVICT LABOR	JUN 2003
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-29	NOTIFICATION OF VISA DENIAL	JUN 2003
52.222-26	EQUAL OPPORTUNITY	MAR 2007
52.222-35	EQUAL OPPORTUNITY FOR VETERANS	SEP 2010
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	OCT 2010
52.222-37	EMPLOYMENT REPORTS ON VETERANS	SEP 2010
52.222-50	COMBATING TRAFFICKING IN PERSONS	FEB 2009
52.222-54	EMPLOYMENT ELIGIBILITY VERIFICATION	JUL 2012
52.223-5	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION	MAY 2011
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.223-18	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING	AUG 2011
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN 2008
52.227-1	AUTHORIZATION AND CONSENT	DEC 2007
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC 2007
52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR 1996
52.232-7	PAYMENTS UNDER TIME-AND-MATERIALS AND LABOR-HOUR CONTRACTS	
52.232-17	INTEREST	OCT 2010
52.232-18	AVAILABILITY OF FUNDS	APR 1984
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT ALTERNATE I (FEB 2002)	OCT 2008
52.232-33	PAYMENT BY ELECTRONIC FUNDS--CENTRAL CONTRACTOR REGISTRATION	OCT 2003
52.233-1	DISPUTES	JUL 2002
52.233-3	PROTEST AFTER AWARD ALTERNATE I (JUN 1985)	AUG 1996
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.237-2	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION	APR 1984
52.237-11	ACCEPTING AND DISPENSING OF \$1 COIN	SEP 2008
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-2	PRODUCTION PROGRESS REPORTS	APR 1991
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY 2001
52.242-4	CERTIFICATION OF FINAL INDIRECT COSTS	JAN 1997
52.242-13	BANKRUPTCY	JUL 1995
52.243-3	CHANGES--TIME-AND-MATERIALS OR LABOR-HOURS	SEP 2000
52.244-2	SUBCONTRACTS	OCT 2010

	ALTERNATE I (JUNE 2007)	
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	DEC 2010
52.245-1	GOVERNMENT PROPERTY	APR 2012
52.245-9	USE AND CHARGES	APR 2012
52.246-25	LIMITATION OF LIABILITY--SERVICES	FEB 1997
52.248-1	VALUE ENGINEERING	OCT 2010
52.249-2	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)	APR 2012
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

**I.2 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING  
RESPONSIBILITY MATTERS (FEB 2012)**

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database via <https://www.acquisition.gov>.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments--

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by--

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIS is automatically transferred after a waiting period of 14 calendar days, except for--

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the nonpublic segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

### **1.3 52.215-23 LIMITATIONS ON PASS-THROUGH CHARGES (OCT 2009)**

(a) Definitions. As used in this clause--

"Added value" means that the Contractor performs subcontract management functions that the Contracting Officer determines are a benefit to the Government (e.g., processing orders of parts or services, maintaining inventory, reducing delivery lead times, managing multiple sources for contract requirements, coordinating deliveries, performing quality assurance functions).

"Excessive pass-through charge," with respect to a Contractor or subcontractor that adds no or negligible value to a contract or subcontract, means a charge to the Government by the Contractor or subcontractor that is for indirect costs or profit/fee on work performed by a subcontractor (other than charges for the costs of managing subcontracts and any applicable indirect costs and associated profit/fee based on such costs).

"No or negligible value means" the Contractor or subcontractor cannot demonstrate to the Contracting Officer that its effort added value to the contract or subcontract in accomplishing the work performed under the contract (including task or delivery orders).

"Subcontract" means any contract, as defined in FAR 2.101, entered into by a subcontractor to furnish supplies or services for performance of the contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

"Subcontractor," as defined in FAR 44.101, means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Contractor or another subcontractor.

(b) General. The Government will not pay excessive pass-through charges. The Contracting Officer shall determine if excessive pass-through charges exist.

(c) Reporting. Required reporting of performance of work by the Contractor or a subcontractor. The Contractor shall notify the Contracting Officer in writing if--

(1) The Contractor changes the amount of subcontract effort after award such that it exceeds 70 percent of the total cost of work to be performed under the contract, task order, or delivery order. The notification shall identify the revised cost of the subcontract effort and shall include verification that the Contractor will provide added value; or

(2) Any subcontractor changes the amount of lower-tier subcontractor effort after award such that it exceeds 70 percent of the total cost of the work to be performed under its subcontract. The notification shall identify the revised cost of the subcontract effort and shall include verification that the subcontractor will provide added value as related to the work to be performed by the lower-tier subcontractor(s).

(d) Recovery of excessive pass-through charges. If the Contracting Officer determines that excessive pass-through charges exist;

(1) For other than fixed-price contracts, the excessive pass-through charges are unallowable in accordance with the provisions in FAR subpart 31.2; and

(2) For applicable DoD fixed-price contracts, as identified in 15.408(n)(2)(i)(B), the Government shall be entitled to a price reduction for the amount of excessive pass-through charges included in the contract price.

(e) Access to records.

(1) The Contracting Officer, or authorized representative, shall have the right to examine and audit all the Contractor's records (as defined at FAR 52.215-2(a)) necessary to determine whether the Contractor proposed, billed, or claimed excessive pass-through charges.

(2) For those subcontracts to which paragraph (f) of this clause applies, the Contracting Officer, or authorized representative, shall have the right to examine and audit all the subcontractor's records (as defined at FAR 52.215-2(a)) necessary to determine whether the subcontractor proposed, billed, or claimed excessive pass-through charges.

(f) Flowdown. The Contractor shall insert the substance of this clause, including this paragraph (f), in all cost-reimbursement subcontracts under this contract that exceed the simplified acquisition threshold, except if the contract is with DoD, then insert in all cost-reimbursement subcontracts and fixed-price subcontracts, except those identified in 15.408(n)(2)(i)(B)(2), that exceed the threshold for obtaining cost or pricing data in accordance with FAR 15.403-4.

#### **I.4 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (APR 2012)**

(a) Definitions. As used in this clause-

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern means a concern, including its affiliates that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or

control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts-

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at <http://www.sba.gov/content/table-small-business-size-standards>.

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the rerepresentation required by paragraph (b) of this clause by validating or updating all its representations in the Online Representations and Certifications Application and its data in the Central Contractor Registration, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in ORCA, or does not have a representation in ORCA for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it [ ] is, [ ] is not a small business concern under NAICS Code assigned to contract number .

[Contractor to sign and date and insert authorized signer's name and title].

**I.5 52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (DEC 2010)**

(a) During the term of this contract, the Contractor shall post an employee notice, of such size and in such form, and containing such content as prescribed by the Secretary of Labor, in conspicuous places in and about its plants and offices where employees covered by the National Labor Relations Act engage in activities relating to the performance of the contract, including all places where notices to employees are customarily posted both physically and electronically, in the languages employees speak, in accordance with 29 CFR 471.2(d) and (f).

(1) Physical posting of the employee notice shall be in conspicuous places in and about the Contractor's plants and offices so that the notice is prominent and readily seen by employees who are covered by the National Labor Relations Act and engage in activities related to the performance of the contract.

(2) If the Contractor customarily posts notices to employees electronically, then the Contractor shall also post the required notice electronically by displaying prominently, on any Web site that is maintained by the Contractor and is customarily used for notices to employees about terms and conditions of employment, a link to the Department of Labor's Web site that contains the full text of the poster. The link to the Department's Web site, as referenced in (b)(3) of this section, must read, "Important Notice about Employee Rights to Organize and Bargain Collectively with Their Employers."

(b) This required employee notice, printed by the Department of Labor, may be-

(1) Obtained from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW., Room N-5609, Washington, DC 20210, (202) 693-0123, or from any field office of the Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Provided by the Federal contracting agency if requested;

(3) Downloaded from the Office of Labor-Management Standards Web site at <http://www.dol.gov/olms/regs/compliance/EO13496.htm>; or

(4) Reproduced and used as exact duplicate copies of the Department of Labor's official poster.

(c) The required text of the employee notice referred to in this clause is located at Appendix A, Subpart A, 29 CFR Part 471.

(d) The Contractor shall comply with all provisions of the employee notice and related rules, regulations, and orders of the Secretary of Labor.

(e) In the event that the Contractor does not comply with the requirements set forth in paragraphs (a) through (d) of this clause, this contract may be terminated or suspended in whole or in part, and the Contractor may be suspended or debarred in accordance with 29 CFR 471.14

and subpart 9.4. Such other sanctions or remedies may be imposed as are provided by 29 CFR part 471, which implements Executive Order 13496 or as otherwise provided by law.

(f) Subcontracts.

(1) The Contractor shall include the substance of this clause, including this paragraph (f), in every subcontract that exceeds \$10,000 and will be performed wholly or partially in the United States, unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 3 of Executive Order 13496 of January 30, 2009, so that such provisions will be binding upon each subcontractor.

(2) The Contractor shall not procure supplies or services in a way designed to avoid the applicability of Executive Order 13496 or this clause.

(3) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance.

(4) However, if the Contractor becomes involved in litigation with a subcontractor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

**1.6 52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR (APR 1984)**

Funds are not presently available for performance under this contract beyond \$850,000.00. The Government's obligation for performance of this contract beyond that date is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract beyond \$850,000.00, until funds are made available to the Contracting Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing by the Contracting Officer.

**1.7 52.232-99 PROVIDING ACCELERATED PAYMENT TO SMALL BUSINESS SUBCONTRACTORS (DEVIATION) (AUG 2012)**

This clause implements the temporary policy provided by OMB Policy Memorandum M-12-16, Providing Prompt Payment to Small Business Subcontractors, dated July 11, 2012.

(a) Upon receipt of accelerated payments from the Government, the contractor is required to make accelerated payments to small business subcontractors to the maximum extent practicable after receipt of a proper invoice and all proper documentation from the small business subcontractor.

(b) Include the substance of this clause, including this paragraph (b), in all subcontracts with small business concerns.

(c) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.



**I.8 52.249-14 EXCUSABLE DELAYS (APR 1984)**

(a) Except for defaults of subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. "Default" includes failure to make progress in the work so as to endanger performance.

(b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless--

(1) The subcontracted supplies or services were obtainable from other sources;

(2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and

(3) The Contractor failed to comply reasonably with this order.

(c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure. If the Contracting Officer determines that any failure to perform results from one or more of the causes above, the delivery schedule shall be revised, subject to the rights of the Government under the termination clause of this contract.

**I.9 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)**

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<https://www.acquisition.gov/far/>

## PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

## SECTION J - LIST OF ATTACHMENTS

ATTACHMENT  
NO.                      TITLE

*DAK*  
Nb. of Pages

- |    |                                                                                  |           |
|----|----------------------------------------------------------------------------------|-----------|
| 1. | Subpart 2009.5 Organizational Conflicts of Interest                              | - 8 pages |
| 2. | Billing instructions for Labor Hour/Time and Materials type Contracts (May 2013) | - 8 pages |
| 3. | Standard Definitions & Acronyms                                                  | - 3 pages |
| 4. | Outline, format, and sample for the TER (draft SER input)                        | - 1 page  |
| 5. | Monthly Letter Status Report (MLSR)                                              | - 3 pages |

**Subpart 2009.5 Organizational Conflicts of Interest****§2009.500 Scope of subpart.**

In accordance with 42 U.S.C. 2210a., NRC acquisitions are processed in accordance with §2009.570, which takes precedence over FAR 9.5 with respect to organizational conflicts of interest. Where non-conflicting guidance appears in FAR 9.5, that guidance must be followed.

**§2009.570 NRC organizational conflicts of interest.****§2009.570-1 Scope of policy.**

(a) It is the policy of NRC to avoid, eliminate, or neutralize contractor organizational conflicts of interest. The NRC achieves this objective by requiring all prospective contractors to submit information describing relationships, if any, with organizations or persons (including those regulated by the NRC) which may give rise to actual or potential conflicts of interest in the event of contract award.

(b) Contractor conflict of interest determinations cannot be made automatically or routinely. The application of sound judgment on virtually a case-by-case basis is necessary if the policy is to be applied to satisfy the overall public interest. It is not possible to prescribe in advance a specific method or set of criteria which would serve to identify and resolve all of the contractor conflict of interest situations that might arise. However, examples are provided in these regulations to guide application of this policy guidance. The ultimate test is as follows: Might the contractor, if awarded the contract, be placed in a position where its judgment may be biased, or where it may have an unfair competitive advantage?

(c) The conflict of interest rule contained in this subpart applies to contractors and offerors only. Individuals or firms who have other relationships with the NRC (e.g., parties to a licensing proceeding) are not covered by this regulation. This rule does not apply to the acquisition of consulting services through the personnel appointment process, NRC agreements with other Government agencies, international organizations, or state, local, or foreign Governments. Separate procedures for avoiding conflicts of interest will be employed in these agreements, as appropriate.

**§2009.570-2 Definitions.**

Affiliates means business concerns which are affiliates of each other when either directly or indirectly one concern or individual controls or has the power to control another, or when a third party controls or has the power to control both.

Contract means any contractual agreement or other arrangement with the NRC except as provided in §2009.570-1(c).

Contractor means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, affiliates thereof, or their successors in interest, including their chief executives, directors, key personnel (identified in the contract), proposed consultants or

subcontractors, which are a party to a contract with the NRC. Evaluation activities means any effort involving the appraisal of a technology, process, product, or policy.

Offeror or prospective contractor means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, or their affiliates or successors in interest, including their chief executives, directors, key personnel, proposed consultants, or subcontractors, submitting a bid or proposal, solicited or unsolicited, to the NRC to obtain a contract.

Organizational conflicts of interest means that a relationship exists whereby a contractor or prospective contractor has present or planned interests related to the work to be performed under an NRC contract which:

(1) May diminish its capacity to give impartial, technically sound, objective assistance and advice, or may otherwise result in a biased work product; or

(2) May result in its being given an unfair competitive advantage.

Potential conflict of interest means that a factual situation exists that suggests that an actual conflict of interest may arise from award of a proposed contract. The term potential conflict of interest is used to signify those situations that

(1) Merit investigation before contract award to ascertain whether award would give rise to an actual conflict; or

(2) Must be reported to the contracting officer for investigation if they arise during contract performance.

Research means any scientific or technical work involving theoretical analysis, exploration, or experimentation.

Subcontractor means any subcontractor of any tier who performs work under a contract with the NRC except subcontracts for supplies and subcontracts in amounts not exceeding \$10,000.

Technical consulting and management support services means internal assistance to a component of the NRC in the formulation or administration of its programs, projects, or policies which normally require that the contractor be given access to proprietary information or to information that has not been made available to the public. These services typically include assistance in the preparation of program plans, preliminary designs, specifications, or statements of work.

**§2009.570-3 Criteria for recognizing contractor organizational conflicts of interest.**

(a) General.

(1) Two questions will be asked in determining whether actual or potential organizational conflicts of interest exist:

(i) Are there conflicting roles which might bias an offeror's or contractor's judgment in relation to its work for the NRC?

(ii) May the offeror or contractor be given an unfair competitive advantage based on the performance of the contract?

(2) NRC's ultimate determination that organizational conflicts of interest exist will be made in light of common sense and good business judgment based upon the relevant facts. While it is difficult to identify and to prescribe in advance a specific method for avoiding all of the various situations or relationships that might involve potential organizational conflicts of interest, NRC personnel will pay particular attention to proposed contractual requirements that call for the rendering of advice, consultation or evaluation activities, or similar activities that directly lay the groundwork for the NRC's decisions on regulatory activities, future procurements, and research programs. Any work performed at an applicant or licensee site will also be closely scrutinized by the NRC staff.

(b) Situations or relationships. The following situations or relationships may give rise to organizational conflicts of interest:

(1) The offeror or contractor shall disclose information that may give rise to organizational conflicts of interest under the following circumstances. The information may include the scope of work or specification for the requirement being performed, the period of performance, and the name and telephone number for a point of contact at the organization knowledgeable about the commercial contract.

(i) Where the offeror or contractor provides advice and recommendations to the NRC in the same technical area where it is also providing consulting assistance to any organization regulated by the NRC.

(ii) Where the offeror or contractor provides advice to the NRC on the same or similar matter on which it is also providing assistance to any organization regulated by the NRC.

(iii) Where the offeror or contractor evaluates its own products or services, or has been substantially involved in the development or marketing of the products or services of another entity.

(iv) Where the award of a contract would result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC, or would result in an unfair competitive advantage for the offeror or contractor.

(v) Where the offeror or contractor solicits or performs work at an applicant or licensee site while performing work in the same technical area for the NRC at the same site.

(2) The contracting officer may request specific information from an offeror or contractor or may require special contract clauses such as provided in §2009.570-5(b) in the following circumstances:

(i) Where the offeror or contractor prepares specifications that are to be used in competitive procurements of products or services covered by the specifications.

(ii) Where the offeror or contractor prepares plans for specific approaches or methodologies that are to be incorporated into competitive procurements using the approaches or methodologies.

(iii) Where the offeror or contractor is granted access to information not available to the public concerning NRC plans, policies, or programs that could form the basis for a later procurement action.

(iv) Where the offeror or contractor is granted access to proprietary information of its competitors.

(v) Where the award of a contract might result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC or might result in an unfair competitive advantage for the offeror or contractor.

(c) Policy application guidance. The following examples are illustrative only and are not intended to identify and resolve all contractor organizational conflict of interest situations.

(1)(i) Example. The ABC Corp., in response to a Request For Proposal (RFP), proposes to undertake certain analyses of a reactor component as called for in the RFP. The ABC Corp. is one of several companies considered to be technically well qualified. In response to the inquiry in the RFP, the ABC Corp. advises that it is currently performing similar analyses for the reactor manufacturer.

(ii) Guidance. An NRC contract for that particular work normally would not be awarded to the ABC Corp. because the company would be placed in a position in which its judgment could be biased in relationship to its work for the NRC. Because there are other well-qualified companies available, there would be no reason for considering a waiver of the policy.

(2)(i) Example. The ABC Corp., in response to an RFP, proposes to perform certain analyses of a reactor component that is unique to one type of advanced reactor. As is the case with other technically qualified companies responding to the RFP, the ABC Corp. is performing various projects for several different utility clients. None of the ABC Corp. projects have any relationship to the work called for in the RFP. Based on the NRC evaluation, the ABC Corp. is considered to be the best qualified company to perform the work outlined in the RFP.

(ii) Guidance. An NRC contract normally could be awarded to the ABC Corp. because no conflict of interest exists which could motivate bias with respect to the work. An appropriate clause would be included in the contract to preclude the ABC Corp. from subsequently contracting for work with the private sector that could create a conflict during the performance of the NRC contract. For example, ABC Corp. would be precluded from the performance of similar work for the company developing the advanced reactor mentioned in the example.

(3)(i) Example. The ABC Corp., in response to a competitive RFP, submits a proposal to assist the NRC in revising NRC's guidance documents on the respiratory protection requirements of 10 CFR Part 20. ABC Corp. is the only firm determined to be technically acceptable. ABC Corp. has performed substantial work for regulated utilities in the past and is expected to continue similar efforts in the future. The work has and will cover the writing, implementation, and administration of compliance respiratory protection programs for nuclear power plants.

(ii) Guidance. This situation would place the firm in a role where its judgment could be biased in relationship to its work for the NRC. Because the nature of the required work is vitally important in terms of the NRC's responsibilities and no reasonable alternative exists, a waiver of the policy, in accordance with §2009.570-9 may be warranted. Any waiver must be fully documented in

accordance with the waiver provisions of this policy with particular attention to the establishment of protective mechanisms to guard against bias.

(4)(i) Example. The ABC Corp. submits a proposal for a new system to evaluate a specific reactor component's performance for the purpose of developing standards that are important to the NRC program. The ABC Corp. has advised the NRC that it intends to sell the new system to industry once its practicability has been demonstrated. Other companies in this business are using older systems for evaluation of the specific reactor component.

(ii) Guidance. A contract could be awarded to the ABC Corp. if the contract stipulates that no information produced under the contract will be used in the contractor's private activities unless this information has been reported to the NRC. Data on how the reactor component performs, which is reported to the NRC by contractors, will normally be disseminated by the NRC to others to preclude an unfair competitive advantage. When the NRC furnishes information about the reactor component to the contractor for the performance of contracted work, the information may not be used in the contractor's private activities unless the information is generally available to others. Further, the contract will stipulate that the contractor will inform the NRC contracting officer of all situations in which the information, developed about the performance of the reactor component under the contract, is proposed to be used.

(5)(i) Example. The ABC Corp., in response to a RFP, proposes to assemble a map showing certain seismological features of the Appalachian fold belt. In accordance with the representation in the RFP and §2009.570-3(b)(1)(i), ABC Corp. informs the NRC that it is presently doing seismological studies for several utilities in the eastern United States, but none of the sites are within the geographic area contemplated by the NRC study.

(ii) Guidance. The contracting officer would normally conclude that award of a contract would not place ABC Corp. in a conflicting role where its judgment might be biased. Section 2052.209-72(c) Work for Others, would preclude ABC Corp. from accepting work which could create a conflict of interest during the term of the NRC contract.

(6)(i) Example. AD Division of ABC Corp., in response to a RFP, submits a proposal to assist the NRC in the safety and environmental review of applications for licenses for the construction, operation, and decommissioning of fuel cycle facilities. ABC Corp. is divided into two separate and distinct divisions, AD and BC. The BC Division performs the same or similar services for industry. The BC Division is currently providing the same or similar services required under the NRC's contract for an applicant or licensee.

(ii) Guidance. An NRC contract for that particular work would not be awarded to the ABC Corp. The AD Division could be placed in a position to pass judgment on work performed by the BC Division, which could bias its work for NRC. Further, the Conflict of Interest provisions apply to ABC Corp. and not to separate or distinct divisions within the company. If no reasonable alternative exists, a waiver of the policy could be sought in accordance with §2009.570-9.

(7)(i) Example. The ABC Corp. completes an analysis for NRC of steam generator tube leaks at one of a utility's six sites. Three months later, ABC Corp. is asked by this utility to perform the same analysis at another of its sites.

(ii) Guidance. Section 2052.290-72(c)(3) would prohibit the contractor from beginning this work for the utility until one year after completion of the NRC work at the first site.

(8)(i) Example. ABC Corp. is assisting NRC in a major on-site analysis of a utility's redesign of the common areas between its twin reactors. The contract is for two years with an estimated value of \$5 million. Near the completion of the NRC work, ABC Corp. requests authority to solicit for a \$100K contract with the same utility to transport spent fuel to a disposal site. ABC Corp. is performing no other work for the utility.

(ii) Guidance. The Contracting Officer would allow the contractor to proceed with the solicitation because it is not in the same technical area as the NRC work; and the potential for technical bias by the contractor because of financial ties to the utility is slight due to the relative value of the two contracts.

(9)(i) Example. The ABC Corp. is constructing a turbine building and installing new turbines at a reactor site. The contract with the utility is for five years and has a total value of \$100 million. ABC Corp. has responded to an NRC Request For Proposal requiring the contractor to participate in a major team inspection unrelated to the turbine work at the same site. The estimated value of the contract is \$75K.

(ii) Guidance. An NRC contract would not normally be awarded to ABC Corp. because these factors create the potential for financial loyalty to the utility that may bias the technical judgment of the contractor.

(d) Other considerations.

(1) The fact that the NRC can identify and later avoid, eliminate, or neutralize any potential organizational conflicts arising from the performance of a contract is not relevant to a determination of the existence of conflicts prior to the award of a contract.

(2) It is not relevant that the contractor has the professional reputation of being able to resist temptations which arise from organizational conflicts of interest, or that a follow-on procurement is not involved, or that a contract is awarded on a competitive or a sole source basis.

#### **§2009.570-4 Representation.**

(a) The following procedures are designed to assist the NRC contracting officer in determining whether situations or relationships exist which may constitute organizational conflicts of interest with respect to a particular offeror or contractor. The procedures apply to small purchases meeting the criteria stated in the following paragraph (b) of this section.

(b) The organizational conflicts of interest representation provision at §2052.209-71 must be included in solicitations and contracts resulting from unsolicited proposals. The contracting officer must also include this provision for task orders and contract modifications for new work for:

- (1) Evaluation services or activities;
- (2) Technical consulting and management support services;
- (3) Research; and



(4) Other contractual situations where special organizational conflicts of interest provisions are noted in the solicitation and would be included in the resulting contract. This representation requirement also applies to all modifications for additional effort under the contract except those issued under the "Changes" clause. Where, however, a statement of the type required by the organizational conflicts of interest representation provisions has previously been submitted with regard to the contract being modified, only an updating of the statement is required.

(c) The offeror may, because of actual or potential organizational conflicts of interest, propose to exclude specific kinds of work contained in a RFP unless the RFP specifically prohibits the exclusion. Any such proposed exclusion by an offeror will be considered by the NRC in the evaluation of proposals. If the NRC considers the proposed excluded work to be an essential or integral part of the required work and its exclusion would be to the detriment of the competitive posture of the other offerors, the NRC shall reject the proposal as unacceptable.

(d) The offeror's failure to execute the representation required by paragraph (b) of this section with respect to an invitation for bids is considered to be a minor informality. The offeror will be permitted to correct the omission.

#### **§2009.570-5 Contract clauses.**

(a) General contract clause. All contracts and simplified acquisitions of the types set forth in §2009.570-4(b) must include the clause entitled, "Contractor Organizational Conflicts of Interest," set forth in §2052.209-72.

(b) Other special contract clauses. If it is determined from the nature of the proposed contract that an organizational conflict of interest exists, the contracting officer may determine that the conflict can be avoided, or, after obtaining a waiver in accordance with §2009.570-9, neutralized through the use of an appropriate special contract clause. If appropriate, the offeror may negotiate the terms and conditions of these clauses, including the extent and time period of any restriction. These clauses include but are not limited to:

(1) Hardware exclusion clauses which prohibit the acceptance of production contracts following a related non-production contract previously performed by the contractor;

(2) Software exclusion clauses;

(3) Clauses which require the contractor (and certain of its key personnel) to avoid certain organizational conflicts of interest; and

(4) Clauses which provide for protection of confidential data and guard against its unauthorized use.

#### **§2009.570-6 Evaluation, findings, and contract award.**

The contracting officer shall evaluate all relevant facts submitted by an offeror and other relevant information. After evaluating this information against the criteria of §2009.570-3, the contracting officer shall make a finding of whether organizational conflicts of interest exist with respect to a particular offeror. If it has been determined that real or potential conflicts of interest exist, the contracting officer shall:

- (a) Disqualify the offeror from award;
- (b) Avoid or eliminate such conflicts by appropriate measures; or
- (c) Award the contract under the waiver provision of §2009.570-9.

**§2009.570-7 Conflicts identified after award.**

If potential organizational conflicts of interest are identified after award with respect to a particular contractor and the contracting officer determines that conflicts do exist and that it would not be in the best interest of the Government to terminate the contract, as provided in the clauses required by §2009.570-5, the contracting officer shall take every reasonable action to avoid, eliminate, or, after obtaining a waiver in accordance with §2009.570-9, neutralize the effects of the identified conflict.

**§2009.570-8 Subcontracts.**

The contracting officer shall require offerors and contractors to submit a representation statement from all subcontractors (other than a supply subcontractor) and consultants performing services in excess of \$10,000 in accordance with §2009.570-4(b). The contracting officer shall require the contractor to include contract clauses in accordance with §2009.570-5 in consultant agreements or subcontracts involving performance of work under a prime contract.

**§2009.570-9 Waiver.**

(a) The contracting officer determines the need to seek a waiver for specific contract awards with the advice and concurrence of the program office director and legal counsel. Upon the recommendation of the Senior Procurement Executive, and after consultation with legal counsel, the Executive Director for Operations may waive the policy in specific cases if he determines that it is in the best interest of the United States to do so.

(b) Waiver action is strictly limited to those situations in which:

- (1) The work to be performed under contract is vital to the NRC program;
  - (2) The work cannot be satisfactorily performed except by a contractor whose interests give rise to a question of conflict of interest.
  - (3) Contractual and/or technical review and surveillance methods can be employed by the NRC to neutralize the conflict.
- (c) The justification and approval documents for any waivers must be placed in the NRC Public Document Room.

**§2009.570-10 Remedies.**

In addition to other remedies permitted by law or contract for a breach of the restrictions in this subpart or for any intentional misrepresentation or intentional nondisclosure of any relevant interest required to be provided for this section, the NRC may debar the contractor from subsequent NRC contracts.

**BILLING INSTRUCTIONS FOR  
TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

**General:** During performance and through final payment of this contract, the contractor is responsible for the accuracy and completeness of data within the System for Award Management (SAM) database and for any liability resulting from the Government's reliance on inaccurate or incomplete SAM data.

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

**Standard Forms:** Claims 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 vouchers/invoices 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) 13.1, IV, C – "Reporting Requirements" (revised 2/16/2011).

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

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

**BILLING INSTRUCTIONS FOR  
TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

**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 (q) 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 claimed 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 Time-and-Materials/Labor-Hour Type Contracts (July 2011).

**BILLING INSTRUCTIONS FOR  
TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

**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. Payee's Name and Address. Show the name of the Payee as it appears in the contract and its correct address. If the Payee assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Payee shall require as a condition of any such assignment, that the assignee shall register separately in the System for Award Management (SAM) database at <http://sam.gov> and shall be paid by EFT in accordance with the terms of this contract. See Federal Acquisition Regulation (FAR) 52.232-33(g) Payment by Electronic Funds Transfer - Central Contractor Registration (October 2003).
- c. Taxpayer Identification Number. The Payee shall include the Payee's taxpayer identification number (TIN) used by the Internal Revenue Service (IRS) in the administration of tax laws. (See IRS Web site: [http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Employer-ID-Numbers-\(EINs\)](http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Employer-ID-Numbers-(EINs)))).
- 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.

**BILLING INSTRUCTIONS FOR  
 TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

- 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. Labor Hours Expended. Provide a general summary description of the services performed and associated labor hours utilized during the invoice period. Specify the Contract Line Item Number (CLIN) or SubCLIN, as applicable, and information pertaining to the contract's labor categories/positions, and corresponding authorized hours.
- j. Property. For contractor acquired property, list each item with an initial acquisition cost of \$50,000 or more and provide: (1) an item description, (2) manufacturer, (3) model number, (4) serial number, (5) acquisition cost, (6) date of purchase, and (7) a copy of the purchasing document.
- k. Shipping. Insert weight and zone of shipment, if shipped by parcel post.
- l. Charges for freight or express shipments. Attach prepaid bill if shipped by freight or express.
- m. Instructions. Include instructions to consignee to notify the Contracting Officer of receipt of shipment.
- n. For Indefinite Delivery contracts, the final invoice/voucher shall be marked "FINAL INVOICE" or "FINAL VOUCHER".
- o. Direct Costs. Insert the amount billed for the following cost elements, adjustments, suspensions, and total amounts, for both the current billing period and for the cumulative period (from contract inception to end date of this billing period).

(1) Direct (Burdened) Labor. This consists of salaries and wages paid (or accrued) for direct performance of the contract itemized, including a burden (or load) for indirect costs (i.e., fringe, overhead, General and Administrative, as applicable), and profit component, as follows:

<u>Labor</u> <u>Category</u>	<u>Hours</u> <u>Billed</u>	<u>Burdened</u> <u>Hourly Rate</u>	<u>Total</u>	<u>Cumulative</u> <u>Hours Billed</u>
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(2) 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.

**BILLING INSTRUCTIONS FOR  
 TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

(3) Contractor-acquired property (under \$50,000), Materials, and Supplies. These are equipment other than that described in (2) 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.

(4) Materials Handling Fee. Indirect costs allocated to direct materials in accordance the contractor's usual accounting procedures.

(5) 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).

(6) 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.)

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

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

q. Adjustments. Insert columns for any adjustments, including outstanding suspensions for unsupported or unauthorized hours or costs, for the current and cumulative periods.

r. Grand Totals.

**BILLING INSTRUCTIONS FOR  
 TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

**3. Sample Invoice/Voucher Information**

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

This invoice/voucher represents reimbursable costs for the billing period from \_\_\_\_\_ through \_\_\_\_\_

		<u>Amount Billed</u>	
		<u>Current Period</u>	<u>Cumulative</u>
<b>(a)</b>	<b><u>Direct Costs</u></b>		
	(1) Direct burdened labor	\$ _____	\$ _____
	(2) Government property (\$50,000 or more)	\$ _____	\$ _____
	(3) Government property, Materials, and Supplies (under \$50,000 per item)	\$ _____	\$ _____
	(4) Materials Handling Fee	\$ _____	\$ _____
	(5) Consultants Fee	\$ _____	\$ _____
	(6) Travel	\$ _____	\$ _____
	(7) Subcontracts	\$ _____	\$ _____
	Total Direct Costs:	\$ _____	\$ _____
<b>(b)</b>	<b>Total Amount Billed</b>	\$ _____	\$ _____
<b>(c)</b>	<b>Adjustments (+/-)</b>	\$ _____	\$ _____
<b>(d)</b>	<b>Grand Total</b>	\$ _____	\$ _____

(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 Burdened Labor - \$4,800

<u>Labor Category</u>	<u>Hours Billed</u>	<u>Burdened Rate</u>	<u>Total</u>	<u>Cumulative Hours Billed</u>
Senior Engineer I	100	\$28.00	\$2,800	975
Engineer	50	\$20.00	\$1,000	465
Computer Analyst	100	\$10.00	\$1,000	320





**BILLING INSTRUCTIONS FOR  
TIME-AND-MATERIALS/LABOR-HOUR TYPE CONTRACTS (MAY 2013)**

**4. Definitions**

*Material handling costs.* When included as part of material costs, material handling costs shall include only costs clearly excluded from the labor-hour rate. Material handling costs may include all appropriate indirect costs allocated to direct materials in accordance with the contractor's usual accounting procedures.

## STANDARD DEFINITIONS & ACRONYMS

This section includes all appropriate terms and phrases for this SOW.

### DEFINITIONS AND ACRONYMS:

#### DEFINITIONS:

**CONTRACT LINE ITEM NUMBER (CLIN).** CLINs are used to identify, organize and track work requirements throughout the project life cycle. They provide a unit price or lump sum price for each contract deliverable or set of deliverables.

**CONTRACT SPECIALIST.** A person who assists the contracting officer with day-to-day procurement functions. At the NRC, this person handles preaward, postaward and close-out activities.

**CONTRACTOR.** A supplier or vendor awarded a contract to provide specific supplies or service to the Government. The term used in this contract refers to the prime.

**CONTRACTING OFFICER (CO).** A person with delegated authority to enter into, administer, and terminate Government contracts. Note: This is the only individual who can legally bind the Government.

**CONTRACTING OFFICER'S REPRESENTATIVE (COR).** An employee of the Government delegated by the CO to administer the contract. Such appointment shall be in writing (i.e., Delegation and Appointment Memorandum) and shall state the scope of authority and limitations. This individual has authority to provide technical direction to the contractor as long as that direction is within the scope of the contract, does not constitute a change, and has no funding implications. This individual does NOT have authority to change the terms and conditions of the contract.

**DELIVERABLE.** Something required by the Government under the contract to be produced or achieved by the contractor.

**GOVERNMENT PROPERTY.** All property owned or leased to the Government or acquired by the contractor under the terms of the contract where the Government retains title (i.e., contractor-acquired equipment).

**KEY PERSONNEL.** Contractor personnel expected to play a key role in the performance and success of the contract. Key personnel are generally evaluated as part of the Source Evaluation Panel (SEP) proposal review process. Key Personnel are listed in the SOW.

**NONPERSONAL SERVICES CONTRACT.** A contract under which the personnel rendering the services are not subject, either by the contract's terms or by the manner of its administration, to the supervision and control usually prevailing in relationships between the Government and its employees.

**PERSONAL SERVICE CONTRACT.** Is characterized by the employer-employee relationship it creates between the Government and the contractor's personnel. The Government is normally

required to obtain its employees by direct hire under competitive appointment or other procedures required by the civil service laws. . Obtaining personal services by contract, rather than by direct hire, circumvents those laws unless Congress has specifically authorized acquisition of the services by contract.

**PHYSICAL SECURITY.** Actions that prevent the loss or damage of Government property.

**SUBCONTRACTOR.** One that enters into a contract with a prime contractor in performance of the Government contract. However, the Government does not have privity of contract with the subcontractor and therefore does not directly interact with the subcontractor(s).

**ACRONYMS:**

Define any acronyms the Government uses for this initiative; give both the acronym and the words represented by the acronym.

2HD	2-dimensional horizontal
ADCIRC	Advanced CIRCulation Model for Oceanic, Coastal and Estuarine Waters
CFR	Code of Federal Regulations
CLIN	Contract Line Item Number
COL	Combined License
COMCOT	Cornell Multi-grid Coupled Tsunami Model
COR	Contracting Officer's Representative
COTS	Commercial-Off-the-Shelf
COULWAVE	Cornell University Long and Intermediate Wave Modeling Package
DSS	Defense Security Service
ERDC-CHL	Engineer Research and Development Center – Coastal and Hydraulics Laboratory
ESP	Early Site Permit
FAR	Federal Acquisition Regulation
FEMA	Federal Emergency Management Agency
FTR	Federal Travel Regulation
FUNWAVE	Fully Nonlinear Boussinesq Wave Model
HIPAA	Health Insurance Portability and Accountability Act of 1996
IPET	Interagency Performance Evaluation Task Force
JPM-OS	Joint Probability Method with Optional Sampling
LiDAR	Light Detection and Ranging
MOST	Method of Splitting Tsunami
NOAA	National Oceanic and Atmospheric Administration
NRCAR	U.S. Nuclear Regulatory Commission Acquisition Regulation
NSW	Nonlinear Shallow-water
NTTF	Near-Term Task Force
OCI	Organizational Conflict of Interest
ODC	Other Direct Costs
PBL	Planetary Boundary Layer
PIPO	Phase In/Phase Out
PMH	Probable Maximum Hurricane
POC	Point of Contact
RAI	Request for Additional Information
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey

**Outline, format, and sample for the TER (draft SER input)**  
**(Subject to change. Topic for discussion in Task 1 kick-off meeting)**

**X.Y.Z Title of Section**

X.Y.Z.1 Regulatory Criteria

Develop an outline that follows the format and topics presented in the AREAS OF REVIEW section of the appropriate SRP section. This information will correspond to the SRP sections that are the subject of this contract. For each unique SRP review area contained in the TER, the contractor should specify the acceptance criteria that were used for its review. Summarize the applicable regulations and other regulatory references, including regulatory guides, generic letters, or NRC staff positions, that are relevant to this topic.

Technical reviewers are encouraged to use the descriptions of acceptance criteria from previously issued Safety Evaluation Reports for completed design certifications (e.g., NUREG-1793 for the AP1000 Final Safety Evaluation Report) when applicable.

X.Y.Z.2 Summary of Technical Information

Describe the key technical points that were made in the application. It is not necessary to restate the application verbatim or to address all the details in the application.

X.Y.Z.3 Technical Evaluation

Document the contractor's evaluation of the application against the relevant regulatory criteria. The evaluation should support the contractor's conclusions as to whether the regulations are met. State what the contractor did to evaluate the applicant's submittal. The contractor's evaluation may include verification that the applicant followed applicable regulatory guidance, performance of independent calculations, and validation that the appropriate assumptions were made. The contractor may state that certain information provided by the applicant was not considered essential to the contractor's review and was not reviewed by the contractor. While the contractor may summarize the information offered by the applicant in support of its application, the contractor should clearly articulate the bases for its conclusions.

Contractor should provide a clear and concise description of any request for additional information (RAIs). The description should include a justification of the requested information that the requested information is not provided in the application and is absolutely needed to determine or confirm whether the relevant regulatory requirements (articulate specific requirements) have been met. The contractor should discuss its technical evaluation of the licensee's response to the RAIs and determine whether it is acceptable. The contractor should clearly articulate the bases for its acceptance or rejection. If the RAI response is not acceptable, it will be classified as an 'open item'. All open items will be resolved in Phase 3.

X.Y.Z.4 Conclusions

Summarize the contractor's conclusions regarding the application, including words such as the following. As set forth above in Sections X.Y.Z.2 and X.Y.Z.3 of this report, [provide specific bases for conclusions that follow]. Accordingly, the staff concludes that the application meets [or, if applicable, does not meet] the relevant requirements of 10 CFR Part XX and is [or, if applicable, is not] acceptable.

X.Y.Z.5 List of References

**MONTHLY LETTER STATUS REPORT (MLSR)**

**PROJECT TITLE:** [Project Title]

**CONTRACT NO.:** [Contract No.]

**A. CONTRACT IDENTIFICATION AND FINANCIAL SUMMARY INFORMATION**

**CONTRACT TITLE:** [Contract Title]

**JOB CODE NO. (JCN):** [JCN#]

**TECHNICAL ASSIGNMENT CONTROL NUMBER (TAC):** [TAC#]

**PERIOD OF PERFORMANCE:** [Start date to Finish date]

**PERIOD COVERED:** [Month 1<sup>st</sup> to Month 31<sup>st</sup>]

**NRC COR :** [Name of COR]

**CONTRACTOR PROJ. MANAGER:** [Contractor Project Manager]

**CONTRACTING ORGANIZATION:** [Contractor Business Name]

1.	Contract Amount:	\$
2.	Funds Obligated to Date:	\$

		Cost This Period	Cumulative Cost to Date
3.	Total Direct Costs Invoiced	\$	\$
4.	Total Indirect Costs Invoiced	\$	\$
5.	Fee Invoiced	\$	\$
6.	Total Cost Invoiced [Item3+Item4+Item5]	\$	
7.	Percent Expended (%) [Item6/Item2]		\$
8.	Balance of Obligation Funds Remaining based on Invoiced Cost [Item2-Item6]		\$
9.	Total Actual Costs ( Invoiced Cost and Cost Not Yet Invoiced (e.g., Pending/Outstanding Subcontractor /Consultant Costs)		\$
10.	Balance of Obligated Funds Remaining based on Actual Cost [Item2-Item9]		\$
11.	Balance of Funds Required for Completion (Item 1 – Item 10)		\$

**Spending Plan:**

Month/Year	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13
Planned (\$)												
Revised (\$)												
Actual (\$)												

Month/Year	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13
Planned (\$)												
Revised (\$)												
Actual (\$)												

Month/Year	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13
Planned (\$)												
Revised (\$)												
Actual (\$)												

Plan Total: \$ [Sum of planned(\$)]  
 Revised Total: \$ [Sum of Revised(\$)]  
 Actual Total: \$ [Sum of Actual(\$)]

**B. SCHEDULE MILESTONE INFORMATION**

Description	Planned Completion Date	Revised Completion Date	Actual Completion Date
1. Kick-off and Familiarization			
2. Model Grid Development			
3. Source Characterization			
1. Model Simulations			
2. Licensee Submittal Review			
3. Audit			
4. ACRS Meetings/Hearings			

**C. WORK PERFORMED/ DESCRIPTION**

**D. PROBLEM(S) / RESOLUTION(S)**



**E. TRAVEL FOR THIS PERIOD**

Staff	Start Date	End Date	Destination/ Activity

Print out from contractor's data collection program is acceptable if equivalent to above table.

**F. PLANS FOR NEXT PERIOD**

**G. STAFF HOURS SUMMARY**

Subtask/ Phase	Staff Assigned	Hours Budgeted	Hours Expended This Period	Total Cumulative Hours Expended	Note(s)

Print out from contractor's data collection program is acceptable if equivalent to above table.

**LICENSE FEE RECOVERY COST STATUS  
(Sample)**

Contract No./Job Code:

Title:

Period:

Licensee/ Applicant	Facility Name	Docket TAC Number	Period Number	Cumulative Costs	Cost

If no license fee recoverable costs were incurred during the reporting period this should be stated.

\_\_\_\_\_