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0093 NRC-42-07-036 T93 0700100235						b. STREET ADDRESS								
5. ISSUING OFFICE (Address correspondence to)  U.S. Nuclear Regulatory Commission Div. of Contracts						Attn: Min Lee Mail Stop: T9-F29								
Attn: Jeffrey R. Mitchell, 301-492-3639 Mail Stop T-7-I-2					c. CITY	c. CITY d. STATE e. ZIP CODE Washington DC 20555								
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#### NRC-42-07-036 0093

# TASK ORDER TERMS AND CONDITIONS

# NOT SPECIFIED IN THE CONTRACT

# A.1 2052.216-71 INDIRECT COST RATES (JAN 1993)

(a) Pending the establishment of final indirect rates which must be negotiated based on audit of actual costs, the contractor shall be reimbursed for allowable indirect costs as follows:

# APPLIES ONLY TO TASK ORDER NO. 93, UNDER NRC-42-07-036

INDIRECT COST POOL	RATE	BASE	PERIOD
Fringe Benefits	47%	Direct Labor Direct Labor Total Value Added Cost Input Materials and Subcontractor Costs	Task Order 93 Period of Performance
Overhead	44%		Task Order 93 Period of Performance
G&A	26%		Task Order 93 Period of Performance
Material Handling	5%		Task Order 93 Period of Performance

<sup>(</sup>b) The contracting officer may adjust these rates as appropriate during the term of the contract upon acceptance of any revisions proposed by the contractor. It is the contractor's responsibility to notify the contracting officer in accordance with FAR 52.232-20, Limitation of Cost, or FAR 52.232-22, Limitation of Funds, as applicable, if these changes affect performance of work within the established cost or funding limitations.

#### NRC-42-07-036 0093

In accordance with Section G.4, Task Order Procedures, of Contract No. NRC-42-07-036, this definitizes Task Order No. 93. The effort shall be performed in accordance with the attached Statement of Work.

Task Order No. 93 shall be in effect from Day of Award through September 30, 2012, with a cost ceiling of \$371,375.00. The amount of \$355,569.00 represents the estimated reimbursable costs, and the amount of \$15,806.00 represents the fixed fee.

The amount obligated by the Government with respect to this task order is \$80,000.00, of which \$76,595.00 represents the estimated reimbursable costs, and the amount of \$3,405.00 represents the fixed fee.

The issuance of this task order does not amend any terms or conditions of the subject contract.

Your contacts during the course of this task order are:

Technical Matter:

Min Lee

**Project Officer** 301-415-0502

Contractual Matters: Jeffrey R. Mitchell

Contract Specialist

301-492-3639

Acceptance of Task Order No. 93 should be made by having an official, authorized to bind your organization, execute three copies of this document in the space provided and return two copies to the Contract Specialist at the address identified in Block No. 5 of the OF 347. You should retain the third copy for your records.

ACCEPTANCE:	
NAME V ?	
TITLE	
Z/17/2000	

#### TASK ORDER STATEMENT OF WORK

JCN	Contractor	Task Order No.		
Q4235	ISL	NRC 42-07-036 TASK 93		
Applicant	Design/Site	Docket No.		
N/A	N/A	NA		
Title/Description				
Vendor Inspections to Suppo	ort New Reactor Licensing			
TAC No. B&R Number SRP or ESRP Section(s)				
N/A	025-15-171-192	N/A		
NRC Task Order Project Officer (PC	D)	1,		
Min Lee	301-415-0502	Min.lee@nrc.gov		
NRC Technical Monitor (TM)				
Yanely Malave-Velez	301-415-1519	Yanely.Malave@nrc.gov		

#### 1.0 BACKGROUND

Vendor Inspections are conducted pursuant to Part 50, Domestic Licensing of Production and Utilization Facilities, and Part 21, Reporting of Defects and Non-compliance, of Title 10 of the Code of Federal Regulations.

The NRC staff has prepared an Inspection Manual (Manual Chapter 2507) to establish the inspection program for vendors providing safety-related components, equipments, and services in support of new reactor construction and to provide requirements and guidance to NRC inspectors in conducting inspections at vendor facilities.

The NRC staff also has prepared Inspection Procedures (IP) for Routine and Reactive Inspections of Nuclear Facilities (IP 43002 and 43003, respectively), Inspection of 10 CFR Part 21 and 50.55(e) Programs for reporting Defects and Nonconformance (IP 36100) and Inspection of Commercial-Grade Dedication Programs (IP43004). The IPs provide guidance to the inspectors to verify that vendors are effectively implementing procedures, policies, instructions, and plans in accordance with a QA program that complies with the requirements of Appendix B to 10 CFR Part 50.

The NRC staff develops a non-publicly available inspection plan for each vendor inspection.

The NRC staff publishes the inspection results in a report that is available on the NRC website.

The NRC Office of New Reactors (NRO) currently conducts 10 to 15, both domestic and international, vendor inspections per fiscal year.

# 2.0 OBJECTIVE

The objective of this task order is to obtain technical expertise contractors to assist the NRC staff in conducting vendor inspections to verify that vendors comply with the appropriate regulatory requirements. Specifically, technical assistance is required to conduct vendor inspections at a time when suppliers to the nuclear industry are in critical demand due to the projected increase in the construction of new nuclear power plants. Our main objective is to protect public health and safety and the environment and through these inspections the NRC staff can provide *reasonable assurance* that vendors are complying with all applicable

regulatory requirements. The deliverable is an inspection report input in which the findings/observations are documented.

# 3.0 WORK REQUIREMENTS, SCHEDULE AND DELIVERABLES

	Tasks/Standards	Scheduled Completion	Deliverables
1.	REQUIREMENT: Become familiar with Inspection Manual Chapter 2507, Inspection Procedures 43002, 43003, 43004 and 36100 and applicable industry codes and standards.  STANDARD: Written confirmation that familiarization is complete.	15 days after authorization of work	Documentation that assigned personnel has reviewed and understood applicable manual chapters, inspection procedures and applicable industry codes and standards.
2.	REQUIREMENT: Participate in inspection planning kick-off meeting to discuss the scope of the work, expectations and inspection activities.	TBD weeks after authorization of work	N/A
	STANDARD: Effective and timely participation by individuals designated by NRC (inspection Team Leader).		
	At least 1 month advance notification shall be provided to contractor		
3.	REQUIREMENT: Review and understand the inspection plan.  STANDARD: Depth and breath of	_1_ week after inspection planning meeting	N/A
	technical expertise needed for scope of work is commensurate with knowledge and experience of the technical specialist(s).		
4.	REQUIREMENT: Prepare for and travel to the vendor's site and participate as a technical specialist in an NRC inspection team.	1 week before inspection	N/A
	STANDARD: Provide effective and timely technical support during the inspection.		

	Tasks/Standards	Scheduled Completion	Deliverables
5.	REQUIREMENT: Evaluate the adequacy of vendor's program to determine their compliance with regulatory and technical requirements.	As defined in inspection plan	N/A
	STANDARD: Technical expertise is applied to verify the vendor's programs and processes comply with regulatory requirements.		
6.	REQUIREMENT: Document inspection findings/observations in accordance to Manual Chapter 0617, "Vendor Inspection Reports"	_1_ week after completion of inspection	Draft inspection report input
	STANDARD: Submit the inspection findings/observations (write-up) to NRC Team Leader within 1 week after completion of inspection.		
7.	REQUIREMENT: Review, on an as- needed basis, the adequacy of the corrective actions implemented to address the inspection team's findings.	3 days after receipt of corrective action documents	Inspection report closeout
STANDARD: Submit a review of the corrective actions implemented to address the inspection team's findings to the NRC Team Leader.			

<sup>\*</sup> These Work Schedules are subject to change by the NRC Contracting Officer (CO) to support the needs of the NRC Vendor Inspection Program.

The Technical Monitor may issue technical instructions from time to time throughout the duration of this task order. Technical instructions must be within the general statement of work delineated in the task order and shall not constitute new assignments of work or changes of such a nature as to justify an adjustment in cost or period of performance. The contractor shall refer to Section G.1 of the base contract for further information and guidance on any technical directions issued under this task order.

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

# 4.0 TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

As specified in the base contract, the contractor shall provide individuals who have the required educational background and work experience to meet the objectives of the work specified in this task order. Generally

Manual Chapter 0617. The report shall contain a summary of documents reviewed, findings/observations and their significance, and the basis for the conclusions.

### 6.0 MEETINGS AND TRAVEL\*

The following travel assumptions should be considered in planning the work effort. The actual travel contingent will be determined by the NRC TM.

Twice per year, two persons 5 days inspection at the vendor site or a location, which can be domestic or overseas, determined by the team leader to perform the vendor inspection.

\*At the discretion of the NRC TM, meetings may be conducted via telephone or video conference.

#### 7.0 NRC FURNISHED MATERIAL

It is assumed that the contractor has access to the NRC furnished material, like Inspection Manual Chapter and Inspection Procedures obtained directly form ADAMS, NRC public document room or the NRC website at <a href="https://www.nrc.gov">www.nrc.gov</a>. The NRC staff inspection plan will be provided to the contractor.

# 8.0 PERIOD OF PERFORMANCE

The period of performance is from Day of Award through 9/30/2012.

#### 9.0. OTHER APPLICABLE INFORMATION

### a. License Fee Recovery

All work under this task order is not fee recoverable and must be charged to the appropriate Inspection Report number(s).

#### b. Assumptions and Understandings:

The primary deliverable is the inspection report input, which will provide NRC's technical, safety, and legal basis to adequately explain the rationale for why there is *reasonable assurance* that public health and safety is protected.

applicable to structural, seismic and civil engineering is a must.

Senior Electrical Engineer with demonstrated, extensive knowledge of, and experience as a recognized expert in the design and implementation of projects involving high and medium voltage power transmission, load control centers, substations, distribution systems and design/operation of onsite power sources (e.g., diesel generators, batteries) or other "novel" onsite AC power sources like gas turbines. Demonstrated knowledge of the various codes, standards, and regulations related to nuclear power plants applicable to the design and installation of electrical power systems is a must.

The contractor shall provide a contract project manager (PM) to oversee the effort and ensure the timely submittal of quality deliverables so that all information is accurate and complete as defined in the base contract.

The NRC will rely on representations made by the contractor concerning the qualifications of the personnel assigned to this task order, including assurance that all information contained in the technical and cost proposals, including resumes, is accurate and truthful. The resume for each professional proposed to work under this task order (contractor, subcontractor, or consultant) shall describe the individual's experience in applying his or her area of engineering specialization to work in the proposed area. The use of particular personnel on this contract is subject to the NRC technical monitor's (TM's) approval. This includes any proposed changes to key personnel during the life of the task order.

# 5.0 REPORTING REQUIREMENTS

#### **Task Order Progress Report**

The contractor shall provide a bi-weekly progress report summarizing accomplishments, expenditures, contractor staff hours expended, percent completed for each task under this task order, and any problems encountered by the contractor. The report shall be sent via e-mail to the NRC TM, Task Order Project Officer (PO) and CO.

Please refer to Section F of the basic contract award document for contract reporting requirements.

# Technical reporting requirements

Unless otherwise specified above, the contractor shall provide all deliverables as draft products. The NRC TM 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 TM, and then deliver the final version of the deliverable. When mutually agreed upon between the contractor and the TM, the contractor may submit preliminary or partial drafts to help gauge the contractor's understanding of the particular work requirement.

The contractor shall provide deliverables in hard copy and electronic format. The electronic format shall be provided in MS Word or other word processing software approved by the TM. The contractor shall provide one hard copy and electronic copy to both the Lead Inspector and the TM. The schedule for deliverable shall be contained in the approved project plan for the task order effort.

In the correspondence	, include ide	entifying information:	: JCN No.: <u>Q-</u>	; Technical Assignment	Control No.
(TAC), if applicable,	N/A Tas	k Order No; and tl	he inspection title:	:	

1. At the completion of the vendor inspection, the contractor will have <u>7</u> days to submit a draft inspection report input to NRC Lead Inspector. The format of this input shall be in accordance with

these educational background and work experience requirements are met by having a bachelor's or higher degree in a relevant professional engineering discipline (e.g., nuclear, electrical, mechanical, metallurgical, structural, chemical) from a school of engineering with at least one professional engineering curriculum accredited by the Accreditation Board for Engineering and Technology (ABET). Specific qualifications for this effort include:

Welding Specialist with demonstrated, extensive knowledge of, and experience as a recognized expert in, ferrous and nonferrous metallurgy, welding and joining techniques, and special processes such as weld overlays, weld inlays, and cladding. Extensive knowledge and working experience of ASME BPVC Section IX and Section III, and the American Welding Society (AWS) Code related to the qualification of welding procedures and welder/welding operators; and the fabrication and installation of nuclear components and nuclear power piping. Specifically, qualification of welding procedure specifications, the requirements for procedure qualification record documents, and the types of testing and examinations used for welding procedure or performance qualification. In addition, the welding specialist should be intimately familiar with the specific welding techniques used in nuclear applications, the selection of welding variables for those techniques, and the effect of those variables on the properties of welds. The welding specialist should also possess in-depth knowledge of industry operating experience related to the degradation and failure of welded components and piping in nuclear power plants and how various fabrication processes and fabrication flaws/defects can affect those failures (i.e., materials behavior, environmental effects, corrosion, and/or structural and fracture mechanics, particularly as applied to commercial nuclear power plants). .

Nondestructive Examination (NDE) Specialists with demonstrated, extensive knowledge of, and experience as a recognized expert in nondestructive examination of nuclear components, piping, welds, cladding, and tubing. Extensive knowledge and working experience with the requirements of ASME BPVC Sections III and V as they relate to nondestructive examination, acceptance criteria, flaw evaluation, and the training, qualifications and certification of nondestructive examination personnel, and the qualification of written NDE procedures for nuclear components. In addition, the NDE Specialist must possess in-depth knowledge of the following volumetric, surface and visual NDE techniques: radiography, ultrasonic examinations, eddy current examinations, magnetic particle examinations, and liquid penetrant examinations.

Digital Instrumentation and Control (I&C) Specialist with demonstrated, extensive knowledge of, and experience as a recognized expert in hardware and software design for I&C systems, including all areas of the product lifecycle from specification, design, documentation, procurement, manufacturing, assembly, testing, delivery, training and installation support. The I&C Specialist must also possess extensive experience with low level uP (microprocessor) programming and PLC programming (e.g., Ladder logic) in control and data acquisition systems. Previous experience in nuclear industry Digital I&C is a plus but is not mandatory.

Senior Mechanical Engineer with demonstrated, extensive knowledge of, and experience as a recognized expert in pumps and valves, nuclear power plant systems design and engineering. Demonstrated knowledge of NRC regulations, the ASME design code, regulatory guides, and engineering design concepts applicable to the nuclear industry is a must.

Senior Civil/Structural Engineer with demonstrated, extensive knowledge of, and experience as a recognized expert in nuclear power plant engineering and design. The candidate must possess demonstrated knowledge and experience in the field of structural or civil engineering or applied mechanics, particularly as applied to structural design or stress/dynamic analyses of reactor facilities. Demonstrated knowledge of NRC regulations, regulatory guides, and industry codes and standards