

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1 8

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

BPA NO. DR-03-07-040

1. DATE OF ORDER 5/25/2007		2. CONTRACT NO. (If any) GS23F0113L		6. SHIP TO:	
3. ORDER NO. T001		MODIFICATION NO.		a. NAME OF CONSIGNEE U.S. Nuclear Regulatory Commission	
5. ISSUING OFFICE (Address correspondence to) U.S. Nuclear Regulatory Commission Div of Contracts Two White Flint North - MS T-7-I-2 Attn: Jennifer A. DeFino, (301) 415-6714 Washington, DC 20555		4. REQUISITION/REFERENCE NO. NRC-03-07-040		b. STREET ADDRESS Attn: Matt Johnson, 301-415-2267 M/S: O5-H4	
7. TO:		c. CITY Washington		d. STATE DC	e. ZIP CODE 20555
a. NAME OF CONTRACTOR ARES CORPORATION ARES GOVERNMENT SERVICES		b. COMPANY NAME		f. SHIP VIA	
c. STREET ADDRESS 1440 CHAPIN AVE STE 390		d. CITY BURLINGAME		e. STATE CA	f. ZIP CODE 940104058
9. ACCOUNTING AND APPROPRIATION DATA B&R: 720-15-111-104 Job Code: J-4043 BOC: 252A Apprn. No. 31X020.720 Obligate: \$50,000.00 Contractor DUNS No. 807721980		10. REQUISITIONING OFFICE NRR		8. TYPE OF ORDER	
11. BUSINESS CLASSIFICATION (Check appropriate box(es))		12. F.O.B. POINT N/A		REFERENCE YOUR	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone		<input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> f. EMERGING SMALL BUSINESS		<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
a. INSPECTION		b. ACCEPTANCE		16. DISCOUNT TERMS N/A	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	ISSUANCE OF TASK ORDER NO. 001 TITLE: RESOLUTION OF GENERIC SAFETY ISSUE (GSI)-191, ASSESSMENT OF DEBRIS ACCUMULATION ON PWR SUMP PERFORMANCE, IN THE PROGRAM AREA OF FIVE PLANT AUDITS OF LICENSEE RESPONSES TO GENERIC LETTER (GL) 2004-02 TOTAL ESTIMATED COST: \$183,920.25 PERIOD OF PERFORMANCE: 05/25/2007 - 04/30/2008 CONTRACTOR SIGNATURE REQUIRED ON PAGE 2 OF 2					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.	
21. MAIL INVOICE TO:					
a. NAME U.S. Nuclear Regulatory Commission Division of Contracts					
b. STREET ADDRESS (or P.O. Box) Mail Stop: T-7-I-2 ATTN: DR-03-07-040 T1					
c. CITY Washington		d. STATE DC	e. ZIP CODE 20555		\$50,000.00
17(h) TOTAL (Cont. pages)					
17(i) GRAND TOTAL					

22. UNITED STATES OF AMERICA BY (Signature) 		23. NAME (Typed) Donald A. King Contracting Officer TITLE: CONTRACTING/ORDERING OFFICER	
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In accordance with Section A.10, Task Order Procedures, of blanket purchase agreement number DR-03-07-040, this definitizes verbal authorization given on May 25, 2007, for Task Order No. 001. The effort shall be performed in accordance with the enclosed Statement of Work.

Task Order No. 001 shall be in effect from May 25, 2007 through April 30, 2008, with a cost ceiling of \$183,920.25.

The following individual is considered to be essential to the successful performance for work hereunder: [REDACTED] The Contractor agrees that such personnel shall not be removed from the effort under the task order without compliance with Contract Clause A.8, Key Personnel.

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 Matters: Matt Johnson
Project Officer
(301) 415-2267

Contractual Matters: Jennifer DeFino
Contract Specialist
(301) 415-6714

Acceptance of Task Order No. 001 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. You should retain the third copy for your records.

ACCEPTED: Task Order No. 001

Kathryn Naassan

KATHRYN NAASSAN

NAME

Senior Vice President

Senior Vice President

TITLE

4/20/07

4/20/07

DATE

TASK ORDER TERMS AND CONDITIONS

NOT SPECIFIED IN THE CONTRACT

A.1 NRC Acquisition Clauses - (NRCAR) 48 CFR Ch. 20

A.2 Other Applicable Clauses

See Addendum for the following in full text (if checked)

52.216-18, Ordering

52.216-19, Order Limitations

52.216-22, Indefinite Quantity

52.217-6, Option for Increased Quantity

52.217-7, Option for Increased Quantity Separately Priced Line Item

52.217-8, Option to Extend Services

52.217-9, Option to Extend the Term of the Contract

A.3 SEAT BELTS

Contractors, subcontractors, and grantees, are encouraged to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented, or personally owned vehicles.

Statement of Work for
Task Order 1 under DR-03-07-040

Title: Resolution of Generic Safety Issue (GSI)-191, Assessment of Debris Accumulation on PWR Sump Performance, in the Program Area of Five Plant Audits of Licensee Responses to Generic Letter (GL) 2004-02

Technical Monitors:

Ralph Architzel, office: 301/415-2804; E-mail: rea@nrc.gov for plants:
North Anna Units 1 and 2, Indian Point Units 2 and 3

Leon Whitney, office: 301/415-5253; E-mail: lew1@nrc.gov for plants:
Waterford 3, Salem Units 1 and 2, and St. Lucie Units 1 and 2

Plant Names, TAC Numbers, and Onsite Audit Weeks:

Waterford 3, MC4729, week of June 4, 2007

North Anna Units 1 and 2, MC4696, MC4697, week of July 16, 2007

Salem Units 1 and 2, MC4712, MC4713, week of October 1, 2007

Indian Point Units 2 and 3, MC4689, MC4690, week of December 3, 2007

St. Lucie Units 1 and 2, MC4710, MC4711, week of January 14, 2008

BACKGROUND

In June, 2003, the NRC identified Generic Safety Issue (GSI)-191, involving the potential for clogging of recirculation sump screens in pressurized water reactors (PWRs). Based on the findings of the GSI-191 (Assessment of Debris Accumulation on PWR Sump Performance) study conducted by the NRC Office of Nuclear Regulatory Research on ECCS suction/containment sump clogging in PWRs, the NRC staff issued a Safety Evaluation (SE) and a Generic Letter (GL) 2004-02 pertaining to the PWR sump design guideline report developed by the Nuclear Energy Institute (NEI) in conjunction with the PWR Owners group. Through this GL and using the guidance approved by the SE, licensees are requested to proceed to resolve the GSI-191 issue for each PWR plant. The NRC staff, through audit of licensees' responses to GL-2004-02, is reviewing implementation of the GL, specifically of the new sump designs in accordance with NRC requirements.

NRC staff has decided to audit the five plants listed above to verify and confirm that their new sump strainer performance is in compliance with the 10 CFR 50.46.

OBJECTIVE

The objective of this task order is to obtain engineering expertise from ARES Corporation to assist the staff in determining the technical adequacy of the GSI-191 Sump Clogging Issue analysis of the audited nuclear power plants.

TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

One senior level mechanical engineer with extensive experience on PWR LOCA analyses and containment analysis. This includes areas such as LOCA break selection, debris generation,

debris characteristics, debris transport (including the emerging area of sump and containment pool, near-field effects), recirculation water hold-up volumes, strainer design and performance, strainer head-loss and vortexing and emergency core cooling system (ECCS) and containment spray pump net-positive suction head (NPSH).

WORK REQUIREMENTS

The following are work requirements which shall be performed on each of the five (5) specified audits.

<u>Tasks</u>	<u>Completion Schedule</u>
<p>1. Prepare for audit.</p> <p>a. Based on the guidance in the NRC Safety Evaluation for GSI-191 and NRC Regulatory Guide 1.82, Revision 3, review the plant's proposed design based on the available documents and identify deficiencies and the need for additional or clarifying information to be obtained from the licensee. Participate by telephone in any pre-audit briefings held by the licensee. Discuss the results of the preparation phase by telephone with the Technical Monitor. Coordinate the review activity with other members through the Technical Monitor.</p> <p>b. Prepare a brief summary for the MBLR.</p>	<p>Two days prior to the audit.</p> <p>In the next reporting period.</p>
<p>2. Travel to the plant site (currently planned first day onsite is the first Monday of the above listed week for each plant) to assist the NRC in the conduct of an audit of the new strainer design in the areas of debris generation, transport, characterization, strainer testing and head loss and associated analyses; identify any open items. Prepare a preliminary audit summary including outline of report and Open Items.</p> <p>a. Preliminary draft.</p> <p>b. Incorporate NRC comments and prepare the final Open Item input.</p>	<p>One week after completion of the on site audit.</p> <p>One week after receipt of NRC comments.</p>

<p>3. Based on NRC guidance documents referenced above and any further review guidance provided by the NRC and information gathered during the audit provided by NRC, review and evaluate the licensee's responses to the open items. Participate in telephone conference calls to assist in resolving the open items. Prepare a technical letter report.</p> <p>a. Draft</p> <p>b. Incorporate NRC comments and prepare the final report.</p>	<p>Three weeks after completion of the audit or after receipt of the last response from the licensee.</p> <p>One week after receipt of NRC comments.</p>
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LEVEL OF EFFORT

The estimated level of effort in professional staff hours are apportioned among the tasks as follows:

<u>Tasks</u>	<u>Level of Effort (hours)</u>
1.	56.0
2.	76.0
3.	<u>68.0</u>
Total	200.0

PERIOD OF PERFORMANCE

The period of performance is from May 25, 2007 through April 30, 2008.

DELIVERABLES

Technical Reporting Requirements

NOTE: All reports are to be prepared using WordPerfect X3 (Font Arial regular 11 point) or Microsoft Word 2003 and submitted electronically to the Technical Monitor with a copy provided to the Project Officer. In all correspondence, include the following information: the JCN No., the task order number, the vendor, the TAC number and the NRC/NRR Branch: Safety Issue Resolution Branch (SSIB).

1. For each plant, at the completion of Task 1, inform the Technical Monitor via telephone of specific technical areas to be targeted during the audit and provide any team coordination issues within the assigned scope of review. Provide a summary containing the work performed and results attained in the Monthly Business Letter Report under the "Work Performed during the Period" section.

2. For each plant, at the completion of Task 2, submit a technical letter report, draft and final as appropriate, that contains an outline draft of the planned report input and a list of any outstanding issues (Open Items), with the basis or bases clearly articulated, including the significance of these outstanding issues relative to a conclusion of licensee GL 2004-02 corrective action adequacy identified during the audit. Include a short description of the issue and associated basis.
3. For each plant, at the completion of Task 3, submit a technical letter report, draft and final, that contains a detailed technical adequacy evaluation of the licensee's new ECCS, containment spray, sump and strainer design (Generic Letter 2004-02 corrective actions), including the bases for the conclusions. Include a list of any outstanding issues (Open Items) with the basis or bases clearly articulated, including the significance of these outstanding issues relative to a conclusion of licensee GL 2004-02 corrective action adequacy.

MEETINGS AND TRAVEL

One one-person, five and a half day trip to the plant site for each of the five audits.

NRC-FURNISHED MATERIALS

A CD of the licensee's documents related to the GSI-191 modifications and analyses and the audit plan will be provided to the Principal Investigator at least two weeks before the first day on site for that plant (dates listed above).

If a pre-briefing is held by the licensee for audit team familiarization, the presentation material will be provided to the Principal Investigator with the timing coincident with the briefing.

The NRC Safety Evaluation Report, GSI-191 SE, Revision 0, "Pressurized Water Reactor Containment Sump Evaluation Methodology" dated December 6, 2004, and GL-2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated September 13, 2004, can be found at the following web site:

<http://www.nrc.gov/reactors/operating/ops-experience/pwr-sump-performance.html>

NOTE: Some of these documents contain licensee or vendor information which is provided for audit purposes, may be proprietary, and they must be safeguarded against unauthorized disclosure. After completion of work, such licensee/vendor document(s) should either be destroyed or returned to NRC. If they are destroyed, please confirm this in an E-mail to the Technical Monitor with a copy to the Project Officer and include the date and manner in which the document(s) was destroyed.

OTHER APPLICABLE INFORMATION

License Fee Recovery

The work to be performed under this task order is not licensee fee recoverable.

Assumptions and Understandings

The level of effort assumption for Task 1 is based on NRC's judgment of what it should take to perform a thorough review of the available documentation, at the time, prior to the audit.

The level of effort assumption for Task 2 is based on one-half day for travel to the site, five days for the audit and return trip from the site and four days for documentation.

The level of effort assumption for Task 3 is based on NRC's judgment of what it should take to complete the evaluation, participate in telephone conference calls to assist in resolving open items, writing the report and addressing NRC comments.