

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

BPA NO.

1. CONTRACT ID CODE

PAGE 1

OF PAGE 6

2. AMENDMENT/MODIFICATION NO.
M001

3. EFFECTIVE DATE
See Block 16C.

4. REQUISITION/PURCHASE REQ. NO.
DR-03-06-046T003M001

5. PROJECT NO. (If applicable)

6. ISSUED BY
U.S. Nuclear Regulatory Commission
Div. of Contracts
Attn: Nicole A. Pratt 301-415-0236
Mail Stop T-7-I-2
Washington, DC 20555

CODE
3100

7. ADMINISTERED BY (If other than Item 6)
U.S. Nuclear Regulatory Commission
Div. of Contracts
Mail Stop T-7-I-2
Washington, DC 20555

CODE
3100

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

ARES CORPORATION
ARES GOVERNMENT SERVICES

1440 CHAPIN AVE STE 390
BURLINGAME CA 940104058

(X)

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

10A. MODIFICATION OF CONTRACT/ORDER NO.
DR-03-06-046 T003

10B. DATED (SEE ITEM 13)
09-22-2006

CODE 807721980

FACILITY CODE

X

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

X D. OTHER (Specify type of modification and authority) **Bilateral Mutual Agreement of Both Parties**

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Please see page 2 for task order modification language.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Steve Pool
Contracting Officer

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

BY *Steve Pool*
(Signature of Contracting Officer)

1/12/07

TEMPLATE ADMOO

SUNSI REVIEW COMPLETE

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA - FPMR (48 CFR) 53.243

ADMOO

The purposes of this modification are to replace the task order Period of Performance, Site Name and Statement of Work (attached).

Accordingly, the following changes are hereby made:

Task Order No. 003 shall be in effect from 01/15/2007 through 03/31/2007 with a total cost amount not to exceed \$37,745.09.

Delete block 17(B), lines 2-3 "TITLE: TECHNICAL ASSISTANCE IN SUPPORT OF THE RESOLUTION OF GENERIC SAFETY ISSUE (GSI) 191 FOR INDIAN POINT

Replace block 17(B), lines 2-3 "TITLE: TECHNICAL ASSISTANCE IN SUPPORT OF THE RESOLUTION OF GENERIC SAFETY ISSUE (GSI) 191 FOR Millstone 2

The attached Statement of Work shall replace in its entirety the previous statement of work issued under the basic order.

ALL OTHER TERMS AND CONIDITIONS OF THE SUBJECT TASK ORDER REMAIN THE SAME.

SOW Modification 1 to
Task Order 3 (J-3304) under Contract No. DR-03-06-046

Title: Evaluation of the Technical Adequacy of New PWR Sump Design of the Millstone 2
Response to Generic Letter (GL) 2004-02

Technical Monitor: Leon Whitney, Office: 301/415-2869; E-mail: lew1@nrc.gov

TAC Number: MC4694

PURPOSE AND NEED FOR THE MODIFICATION

The original task order called for the evaluation/audit of the technical adequacy of the new PWR sump design at Indian Point 2 consisting of the examination of the plant's technical approach/solution to the emerging problem of chemical debris in the sump. The licensee decided to reassess the entire technical approach due to emerging chemical effect issues and will not have a decision on a revised technical approach to their corrective actions for Generic Letter 2004-02 until the beginning of December 2006. This decision conflicts with the scheduled December audit and, therefore, the NRC is unable to proceed with the scheduled work. Instead, the Millstone 2 plant is being substituted and is thus the reason for this modification.

Because of the numerous changes to the Statement of Work: technical focus, level of effort, scheduled milestones, period of performance, travel requirements, etc., a new Statement of Work has been prepared.

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) of a PWR sump design guideline report developed by the Nuclear Energy Institute (NEI) in conjunction with the PWR Owners group, and also issued Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors." In response to the GL, and using the guidance approved in the SE, licensees are proceeding to resolve the GSI-191 issue for each PWR plant. The NRC staff, through audit of licensee corrective actions in response to GL-2004-02, is reviewing the new sump strainer designs and their performance.

NRC staff has decided to audit the Millstone 2 Nuclear Power Station 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 Millstone 2 Nuclear Generating Plant.

TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

One senior level mechanical engineer with extensive experience on PWR LOCA analyses and containment analysis. This includes “baseline” analytical areas such as LOCA break selection, debris generation, debris characteristics, debris transport (including the emerging area of sump and containment pool “near-field effect”), recirculation water hold-up volumes, strainer design and performance, strainer head-loss and vortexing, and ECCS and containment spray pump net-positive suction head (NPSH).

WORK REQUIREMENTS

Tasks

Completion Schedule

- | | |
|---|--|
| <p>1. Travel to NRC Headquarters or the Millstone 2 site near New London, Connecticut for a one day pre-audit meeting with the licensee to become familiar with the licensee’s new strainer design and approach. Prepare a trip report.</p> | <p>Two days after the meeting.</p> |
| <p>2. Based on the requirements defined in NRC Safety Evaluation Report for GSI-191, review the new Millstone 2 sump strainer baseline analyses. Identify any apparent analytical deficiencies and any need for additional information for review during the audit. Submit a technical letter report.</p> | <p>One week prior to the audit week trip scheduled for January 22, 2007.</p> |
| <p>3. Prepare for and travel to the Millstone 2 Nuclear Power Station to assist the NRC in the conduct of an audit of the assigned “baseline” technical areas. Based on NRC requirements referenced above, and information gathered during the audit, prepare a technical letter report.</p> | |
| <p>a. Draft.</p> | <p>Two weeks after the audit week trip.</p> |
| <p>b. Incorporate NRC comments and prepare the final report.</p> | <p>One week after receipt of NRC comments.</p> |

LEVEL OF EFFORT

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

<u>Tasks</u>	<u>Level of Effort (days)</u>
1.	3.0
2.	3.5
3.	<u>17.5</u>

Total 24.0

PERIOD OF PERFORMANCE

The projected longest period of performance is three months from authorization to start work.

DELIVERABLES

Technical Reporting Requirements

NOTE: All reports are to be submitted electronically using WordPerfect X3 (Font Arial regular 11 point) or compatible software program to the Technical Monitor with a copy provided to the Project Officer. In all correspondence, include the following information: JCN No., Task No., the applicant, the facility, TAC No., and NRC/NRR Branch.

1. At the completion of Task 1., submit a technical letter report that contains a brief description of the purpose of the trip and any major observations.
2. At the completion of Task 2, submit a technical letter report that identifies any analytical deficiencies in the areas of the new Millstone 2 sump strainer baseline analyses and the need for additional information for review during the audit week.
3. At the completion of Task 3., submit a technical letter report, draft and final as appropriate, that contains a detailed technical adequacy evaluation of the licensee's new sump clogging analysis (corrective actions in response to GL 2004-02), including "baseline" analytical areas such as LOCA break selection, debris generation, debris characteristics, debris transport (including the emerging area of sump and containment pool "near-field effect"), recirculation water hold-up volumes, strainer design and performance, strainer head-loss and vortexing, and ECCS and containment spray pump net-positive suction head (NPSH). Provide 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, three day trip to either NRC Headquarters or the Millstone 2 reactor site near New London, Connecticut; assume New London for purposes of preparing a cost estimate.

One one-person, six day trip to the Millstone 2 reactor site near New London, Connecticut.

NRC-FURNISHED MATERIALS

The licensee's submittal material will be made available during the meeting with licensee (if scheduled) or otherwise provided to the contractor in advance of the audit week. The submittal material, provided at the meeting with the licensee or by mail via the Technical monitor, will be provided at least two weeks before the onsite audit week.

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/regs-guidance.html#five>

NRC-FURNISHED MATERIALS (CONTINUED)

The May 28, 2004 nuclear industry guidance report “PWR Containment Sump Evaluation Methodology” can be at the following web site:

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

NOTE: This document contains licensee information which is provided for audit purposes, may be proprietary, and they must be safeguarded against unauthorized disclosure. After completion of work, the 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

It is assumed that contractors will have all of the required documentation, reports, etc. necessary to perform the work at least two weeks prior to the audit.

The pre-meeting with the licensee, Task 1, has not been confirmed with the licensee but is provided with the scope and the estimate in the event that a pre-meeting is held; for purposes of the cost proposal, assuming the trip is to New London. The level of effort assumed for Task 1 is based on one day travel to the NRC or Millstone 2 reactor site, one day of meetings, one day of return travel and report writing.

The level of effort assumption for Task 2 is based on a three and a half days review of the licensee submittal including development of a one or two page report.

The level of effort assumption for Task 3 is based on one day travel to the Millstone 2 reactor site, five days for the audit, one day of return travel, and ten and a half days for completion of the technical letter report and incorporation of NRC comments.