

ORDER FOR SUPPLIES OR SERVICES

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

BPA NO.

1. DATE OF ORDER MAR 31 2008		2. CONTRACT NO. (if any) NRC-03-07-041		6. SHIP TO:	
3. ORDER NO. NRC-T003		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 Attn: Jeffrey R. Mitchell, 301-415-6465 Mail Stop T-7-I-2 Washington, DC 20555		4. REQUISITION/REFERENCE NO. NRC-03-07-041 NRR-07-041-003		b. STREET ADDRESS Attn: Rachel Glaros Mail Stop: O5-H4 11555 Rockville Pike	
7. TO:		c. CITY Rockville		d. STATE MD	e. ZIP CODE 20852
a. NAME OF CONTRACTOR ENVIRONMENTAL MANAGEMENT SUPPORT INC E M S		f. SHIP VIA		8. TYPE OF ORDER	
b. COMPANY NAME ATTN: N. Jay Bassin		<input type="checkbox"/> a. PURCHASE		<input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 8601 GEORGIA AVE STE 500		REFERENCE YOUR _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY SILVER SPRING		e. STATE MD	f. ZIP CODE 209103439		
9. ACCOUNTING AND APPROPRIATION DATA 820-15-111-104 J-4051 252A 31x0200.820 Obligate \$15,000.00 Contractor DUNS: 106741598		10. REQUISITIONING OFFICE NRR			
11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input checked="" type="checkbox"/> a. SMALL		<input type="checkbox"/> b. OTHER THAN SMALL		N/A	
<input type="checkbox"/> d. WOMEN-OWNED		<input type="checkbox"/> e. HUBZone		<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED	
<input type="checkbox"/> c. DISADVANTAGED		<input type="checkbox"/> f. EMERGING SMALLBUSINESS			
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
a. INSPECTION		b. ACCEPTANCE		As Stated	
				16. DISCOUNT TERMS Net 30	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	REFER TO THE ATTACHED DEFINITIZED ORDER FOR TASK ORDER NO. 003.					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		\$55,953.00	17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:							
SEE BILLING INSTRUCTIONS ON REVERSE		a. NAME U.S. Nuclear Regulatory Commission Payment Team, Mail Stop T-7-I-2				17(i). GRAND TOTAL	
		b. STREET ADDRESS (or P.O. Box) Attn: (NRC-03-07-041 Task Order No. 003)					
		c. CITY Washington	d. STATE DC	e. ZIP CODE 20555			

22. UNITED STATES OF AMERICA
BY (Signature)

Donald A. King

23. NAME (Typed)
Donald A. King
Contracting Officer

TITLE: CONTRACTING/ORDERING OFFICER

In accordance with Section G.4, Task Order Procedures, of Contract No. NRC-03-07-041 this definitizes Task Order No. 003. The effort shall be performed in accordance with the attached Statement of Work.

Task Order No. 003 shall be in effect from the Day of Award through March 31, 2009, with a cost ceiling of \$55,953.00. The amount of \$52,538.00 represents the estimated reimbursable costs, and the amount of \$3,415.00 represents the fixed fee.

The amount currently obligated by the Government with respect to this contract is \$15,000.00 of which the sum of \$14,084.50 represents the estimated reimbursable costs, and \$915.50 represents the fixed fee.

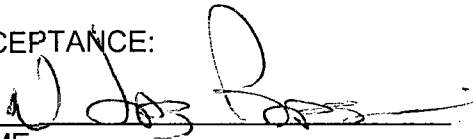
The issuance of this task order does not amend any terms or conditions of the subject contract.

Your contacts during the course of this task order are:

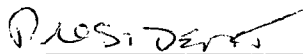
Technical Matter:	Rachel Glaros Project Officer 301-415-3672	Emma Wong Technical Monitor 301-415-1217
Contractual Matters:	Jeffrey R. Mitchell Contract Specialist 301-415-6465	

Acceptance of Task Order No. 003 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.

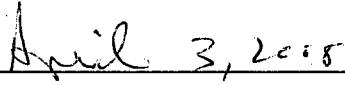
ACCEPTANCE:



NAME



TITLE



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.

A.4 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES (JULY 2006)

(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.

(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.

**STATEMENT OF WORK
TASK ORDER NO. 3 UNDER
NRC-03-07-041, JCN J-4051**

Title: Evaluation of the Technical Adequacy of the Chemical Effects Portion of Pressurized Water Reactor Licensee Supplemental Responses to Generic Letter 2004-02

TAC Number: MC9003

1. 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 emergency core cooling system (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, PWR licensees are proceeding to resolve the GSI-191 issue for each PWR plant. The NRC staff, through review of licensee corrective actions in response to GL 2004-02, is reviewing the new sump strainer designs and their performance.

GL 2004-02 requested all holders of operating licenses PWRs to perform an evaluation of the ECCS and containment spray system (CSS) recirculation functions in light of the information provided in the GL and, if appropriate, take additional actions to ensure system function.

In addition, the GL required addressees to provide the NRC with written responses in accordance with 10 CFR 50.54(f). The GL specifically requested licensees to provide a 90-day response containing their planned actions and schedule to complete the requested evaluation and a more extensive response due no later than September 1, 2005 describing GL 2004-02 corrective action plans containing:

- A confirmation that compliance with core cooling requirements would be achieved;
- A general description of and implementation schedule for all corrective actions, including any plant modifications, to be completed by December 31, 2007;
- A description of the methodology that was used to perform the analysis of the susceptibility of the ECCS and CSS recirculation functions to the adverse effects of post-accident debris blockage and operation with debris-laden fluids; and
- An extensive list of technical parameters, plans, schedules, bases for conclusions, approaches, and verifications.

In a letter dated March 3, 2006 (ADAMS Accession No. ML060650335), the NRC agreed to a proposal by NEI to have PWR licensees respond to NRC GL 2004-02 requests for additional information in a supplemental response to the GL.

In a letter dated September 27, 2007 (ADAMS Accession No. ML0726007425,) the NRC provided NEI with "Draft Evaluation Guidance for the Review of GSI-191 Plant-Specific Chemical Effect Evaluations dated September 2007."

In a letter dated November 21, 2007, (ADAMS Accession No. ML073190618), the NRC provided NEI with a "Draft Safety Evaluation For Pressurized Water Reactor Owners Group (PWROG) Topical Report (TR) WCAP-16530-NP, "Evaluation of Post Accident Chemical Effects in Containment Sump Fluids to Support GSI-191."

In a letter dated November 21, 2007 (ADAMS Accession No. ML073110389), the NRC provided NEI with a revised "Content Guide for Generic Letter 2004-02 Supplemental Responses" and stated that the document was for use by PWR licensees. The purpose of the Content Guide was to describe sufficient content in the PWR licensee's GL responses to support closure of the GL by the NRC for each PWR.

The Content Guide, Draft Evaluation Guidance and the Draft Safety Evaluation (SE) contains guidance for PWR licensees to address GSI-191 audit open items and NRC requests for additional information (RAIs) in general, and specifically in regards to Chemical Effects, and the level of detail the NRC staff expects to be provided in the GL supplemental responses. These documents further contains guidance for overall compliance statements by the licensees, guidance for general descriptions of and schedules for corrective actions, and specific guidance for demonstrating compliance in discrete technical areas of the evaluation methodology utilized by the PWR licensees.

NRC requires contract assistance with reviewing some of the GL 2004-02 supplemental responses starting in March 2008. The supplemental responses are expected to be submitted on a staggered basis. The latest schedule containing due dates of licensee supplemental responses will be provided to EMS by the TM.

2. OBJECTIVE

The objective of this task order is to obtain nuclear power plant chemistry expertise from EMS to assist the staff in determining the technical adequacy of the chemical effects analyses discussions in approximately twenty-five GL 2004-02 supplemental responses from the PWR licensees.

3. TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

One senior level engineer/scientist with extensive experience on PWR Chemical analyses is required. This senior level individual shall be fully capable of reviewing licensee analyses in accordance with the SE for WCAP-16530-NP and the Chemical Effects Review Guidance Document.

4. SCOPE OF WORK

Task 1. Evaluation of GL-2004-02 Supplemental Responses

Using the guidance referenced under the BACKGROUND section, above, (i.e., refer to the Content Guide for judging comprehensiveness and completeness of the supplemental response and refer to Draft Evaluation Guidance and Draft SE for WCAP-16530-NP for written technical guidance), EMS shall review and evaluate approximately 25 PWR licensee GL 2004-02 supplemental responses, to include any stand-alone request for additional information responses, any approved GL 2004-02 corrective actions extensions, and any approved license amendment requests relating to chemical effects and sump buffer changes. For the 10 plants that were audited by the NRC, EMS shall use the final GL 2004-02 corrective action audit reports to determine the status of the GL 2004-02 corrective actions. Up to 5 of the GL2004-02 supplemental responses are expected to be especially complex. For these responses, EMS shall develop detailed analyses for the complex or problematic technical issues that will allow NRC to resolve the issues. For each GL 2004-02 supplemental response reviewed, EMS shall develop a brief and concise summary of the chemical effects information reviewed, identify any omissions in the licensee responses, identify any specific problem areas in licensee approaches, identify general analytical conservatisms if any, and develop RAIs as appropriate for the identified problem areas. NRC staff will develop a draft protocol for reviewing GL-2004-02 supplemental responses. EMS shall provide comments on the draft protocol one week after receipt. The TM shall provide EMS the final draft protocol that shall be followed when preparing Draft Response Review Input. It is expected that NRC staff and EMS will jointly review the initial two supplemental responses to ensure consistency in subsequent reviews.

EMS shall provide each Draft Response Review Input Report one week after receipt of supplemental response from NRC. EMS shall incorporate any NRC staff comments on the Draft Response Review Input Report and provide a Final Response Review Input Report one week after receipt of comments.

Task 2. Meetings with Licensee on GL-2004-02 Supplemental Responses

EMS shall participate in discussions with the licensee to assist the NRC in resolving plant-specific chemical effects issues that arise during the review of the GL-2004-02 supplemental responses. It is anticipated that support for up to three meetings, plus additional telephone calls, will be required. The meetings are anticipated to occur at the plant site or NRC Headquarters Rockville, MD, and last up to two days.

EMS shall prepare a brief trip report no later than one week after the completion of each trip that contains a summary of the work performed to include the name of the plant site, a summary of the issue(s), major highlights of the discussion, resolution(s) reached or agreed upon, a list of any action items and who has the action and when due. Include a list of any information provided during the trip.

5. PERIOD OF PERFORMANCE

The period of performance is award of task order through March 31, 2009.

6. DELIVERABLES

NOTE: All reports are to be submitted to the TM electronically with a copy provided to the Project Officer (PO). These reports shall be prepared in Microsoft Word (Font Arial regular 11 point) or other approved software program. The transmittal letter and cover page shall contain the job code number (JCN), contract number, the task order number, title and NRC technical assignment control (TAC) number, licensee, facility, and NRC/NRR Branch. Care should be taken to avoid the inclusion of any proprietary information in reports, if possible, with all necessary proprietary information clearly identified in the reports.

1. Draft Protocol Comments

Due: One week after receipt of document from NRC

Draft Response Review Input Reports

Due: One week after receipt of GL-2004-02 Supplemental Responses from NRC

Final Response Review Input Reports

Due: One week after receipt of NRC comments

2. Trip Reports

Due: One week after completion of trip

7. MEETINGS AND TRAVEL

Up to three, one-person, two-day trips; for purposes of developing a cost proposal assume one trip in the northeast, one trip in the southeast and one trip in the mid-west.

8. NRC FURNISHED MATERIALS

1. The licensee's GL 2004-2 supplemental response packages will be provided by either mail or e-mail by the TM. The TM will provide previous GL 2004-02 responses as needed, any stand-alone RAI responses, any approved GL 2004-02 corrective actions extensions, and any approved license amendment requests related to the issue.

2. The final GL 2004-02 corrective action audit reports, Draft Evaluation Guidance for the Review of GSI-191 Plant-Specific Chemical Effect Evaluations dated September 2007, and Draft Safety Evaluation For Pressurized Water Reactor Owners Group (PWROG) Topical Report (TR) WCAP-16530-NP, "EVALUATION OF POST-ACCIDENT CHEMICAL EFFECTS IN CONTAINMENT SUMP FLUIDS TO SUPPORT GSI-191" can be found at the following web site:

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

3. The GL Content Guide can be found at the following web site:

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

4. Schedule containing expected receipt dates for licensee supplemental responses will be provided by the TM.
5. Draft Protocol for Draft Response Review Input will be provided by TM.

NOTE: Licensee supplemental GL responses may contain proprietary information and they must be safe-guarded against unauthorized disclosure. After completion of work, the documents should either be destroyed or returned to NRC. If they are destroyed, please confirm this in an E-mail to the TM with a copy to the PO and include the date and manner in which the documents were destroyed.

9. OTHER APPLICABLE INFORMATION

License Fee Recovery

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