

2. AMENDMENT/MODIFICATION NO. M021 3. EFFECTIVE DATE See block 16c. 4. REQUISITION/PURCHASE REQ. NO. 6. PROJECT NO. (if applicable)

5. ISSUED BY CODE 3100 7. ADMINISTERED BY (if other than item 6) CODE 3100
 U.S. Nuclear Regulatory Commission U.S. Nuclear Regulatory Commission
 Div. of Contracts, CMB3 Div. of Contracts
 Attn: Adelia M Rodriguez, 301-492-3623 Mail Stop TWB-01-B10M
 Mail Stop TWB-01-B10M Washington, DC 20555
 Washington, DC 20555

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) (X) 9A. AMENDMENT OF SOLICITATION NO.
 OAO CORPORATION 9B. DATED (SEE ITEM 11)
 Attn: Patricia Gagliemo-Prior 10A. MODIFICATION OF CONTRACT/ORDER NO. 0935F4524G NRC-DR33073581019
 5290 Shawnee Road 10B. DATED (SEE ITEM 13) X 09-26-2007
 Alexandria VA 22312
 CODE 074830209 FACILITY CODE

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) Obl. \$100,000 010-15-5F1-340 J1275 252A 31X0200.910 FFS: 10070575
 Obl. \$100,000 010-15-5G1-348 J1278 252A 31X0200.010 FFS: 10070626

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:
 D. OTHER (Specify type of modification and authority) Mutual agreement of the parties.
 X

E. IMPORTANT: Contractor is not, is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 Reference Task Order 19, Ad Hoc Support for Short Term Projects, under Delivery Order DR-33-07-359.
 The purpose of this modification is to update the Statement of Work at no additional cost to the government and to increase the obligated amount by \$200,000 from \$3,867,275.90 to \$4,067,275.90.
 See page 2 for details.

Total Order ceiling: \$4,269,970.43 (unchanged)
 Total Obligated Amount: \$4,067,275.90 (changed)
 Period of Performance: 9/26/2007-9/25/2010 (unchanged)

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.

10A. NAME AND TITLE OF SIGNER (Type or print) 10A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
 PATRICIA GAGLIEMO-PRIOR Stephen Pool
 SR CONTRACTS MANAGER Contracting Officer
 15B. CONTRACTING OFFICER 15C. DATE SIGNED 15B. UNITED STATES OF AMERICA 15C. DATE SIGNED
 Patricia Gagliemo-Prior 3/30/10 BY Stephen Pool 3/30/10
 (Signature of person authorized to sign) (Signature of Contracting Officer)

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Reference Task Order 19, Ad Hoc Support for Short Term Projects, under Delivery Order DR-33-07-358.

The purpose of this modification is to update the Statement of Work at no additional cost to the government and to increase the obligated amount by \$200,000 from \$3,867,275.90 to \$4,067,275.90. Accordingly the statement of work is replaced with the one attached. The following is a summary of obligations from date of award until the date of this action:

Award FY07	\$1,269,000.00
Mod 1 FY08	\$10,000.00
Mod 2 FY08	\$19,890.00
Mod 4 FY08	\$155,000.00
Mod 5 FY08	\$70,000.00
Mod 6 FY08	\$60,000.00
Mod 7 FY08	\$584,167.06
Mod 8 FY08	\$6,000.00
Mod 9 FY08	\$4,000.00
Mod 10 FY09	\$102,665.00
Mod 11 FY09	\$50,000.00
Mod 12 FY09	\$40,000.00
Mod 13 FY09	\$409,600.00
Mod 14 FY09	\$30,000.00
Mod 15 FY09	\$113,386.50
Mod 16 FY09	\$59,904.00
Mod 17 FY09	\$299,663.34
Mod 18 FY09	\$334,000.00
Mod 20 FY10	\$250,000.00
Mod 21 FY10	\$200,000.00
Total NRC Obligations	\$4,067,275.90

The following is a summary of obligations by job code

B1458	\$70,000.00
D1871	\$457,049.84
I1102	\$40,000.00
I1113	\$45,000.00
J1089	\$281,167.06
J1096	\$28,000.00
J1145	\$470,000.00
J1245	\$8,665.00
J1250	\$200,000.00
J1262	\$155,000.00
J1265	\$125,000.00
J1271	\$150,000.00
J1272	\$152,000.00

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J1273	\$400,000.00
J1275	\$100,000.00
J1278	\$569,600.00
J1279	\$60,000.00
J1294	\$12,000.00
J1296	\$50,000.00
J1298	\$50,000.00
J4263	\$450,000.00
J7002	\$10,000.00
J7028	\$1,500.00
L2277	\$2,500.00
N7169	\$19,890.00
N7378	\$8,000.00
N7423	\$144,000.00
Q4171	\$7,904.00
Total NRC Obligations	\$4,067,275.90

All terms and conditions remain the same.

U. S. NUCLEAR REGULATORY COMMISSION

TASK ORDER 19: Ad Hoc Support

Work Item – Internet Explorer 8 (IE8) Support

A. BACKGROUND

The Nuclear Regulatory Commission (NRC) is testing all of its web/client based applications identified in several application repositories for IE8 browser upgrade. The upgrade is an essential core technology regarding the new desktop image the NRC is implementing. The NRC began testing these applications in December 2009. Testing of these applications will occur until all of the identified applications have been tested and mitigated regarding their functionality with the new browser. Testing and mitigating those applications may be required to support the transition of those applications to IE8.

B. SCOPE

The scope of this task order is limited to work to be performed during the testing of web/client based applications for IE8 conversion. Currently, several NRC application repositories have identified which applications must be tested in order to remediate any potential functional issues associated with the upgrade.

This document defines the level of effort to be expended on tasks such as providing technical support on an informal, short-term basis to assist with any testing/remediation activities. The efforts would include, but not be limited to, ad hoc report creation, testing web/client applications, mitigating functional issues with IE8 browser, and developing a plan of action for those applications that can't meet mitigation criteria. In addition, working with staff to map a strategy, define an IT modernization plan of action, and the like, for IT web/client applications.

1. The Contractor shall provide technical support to make fixes or enhancements to small applications based on the NRC various repositories:
 - (a) Shall include but not limited to functionality, usability, interface compatibility, performance, and security testing of NRC web base applications using Internet Explorer browser version 8.X or the latest 8.X version available for NRC's production environment. See task 2 for further expectations for web base application testing criteria.
 - (b) Mitigate document all findings that have a conflict with IE v8.X.
 - (c) Develop long range modernization plan including cost for web based applications that can't be mitigated or remediated.
 - (d) Work (testing) is to begin as soon as contract modification notification has been provided to the PO for this modification.
 - (e) The Contractor's PM will provide a weekly status report COB EOW describing the success or failure of all the web based applications being tested from the criteria as defined in B.
 - (f) The PO for this modification shall provide to the Contractor a list of those NRC web based applications requiring testing beginning February 1, 2010.

- (2) The following assumptions will be made by the contractor:
- (a) NRC will provide a list of web/client applications for testing and before a project plan is submitted.
 - (b) If a system change is needed, the system owner will coordinate with the contractor for implementation.
 - (c) Full access to all systems requiring testing
 - (d) When possible, testing will be done at the Gude Drive CSC that has direct access to the NRC POE.

C. STATEMENT OF WORK

The contractor shall be responsible for performing the following tasks considered part of a web/client based application criteria. A task is not considered complete until all applicable open issues have been resolved. The NRC Task Order Manager (TOM) will review all draft deliverables and the specified deliverable(s) must be approved by the work item manager prior to issuance of the final deliverable.

Task 1 – Establish and Maintain a Project Plan

The contractor shall produce a project plan for NRC's review that identifies major milestones and estimated due dates for each task as well as all draft and final deliverables associated with that task. The NRC TOM will review draft deliverables and provide comments to the contractor within five working days. The contractor shall coordinate and maintain the project plan in NRC's Enterprise Project Management system.

The initial project plan is due five work days after the task order(s) is executed. The project plan is to be kept up to date and shall be reviewed at each of the bi-weekly status meetings.

Task 2 – Support OIS

The Contractor shall be responsible for making necessary changes to ensure that identified problems with a web/client based application are corrected and returned to production in the shortest amount of time possible. In addition, the contractor shall perform the following activities under this task:

- Develop, support, and maintain testing results, mitigation remedies, and planned modernization report for those applications that can't meet remediation efforts. Regarding applications that can't be corrected, the contractor shall provide recommendations on how the applications can be modernized within the current budgeted framework of NRC and integrated with the Project Management Methodology (PMM) at the NRC.

Web based Application Testing:

- 1) Functionality Testing
- 2) Usability testing
- 3) Interface testing
- 4) Compatibility testing

- 5) Performance testing
- 6) Security testing

1) Functionality Testing:

Test for all the links in web pages, database connection(s), forms used (if applicable) in the web pages for submitting or getting information from user, including cookie testing.

Check all the links:

- Test the outgoing links from all the pages from NRC specific domain(s) under test.
- Test all internal links.
- Test links jumping on the same pages.
- Test links used to send email to admin or other users from web pages.
- Test to check if there are any orphan pages.
- Lastly in link checking, check for broken links in all above-mentioned links.

Test forms in all pages:

Forms are the integral part of any web site. Forms are used to get information from users and to keep interaction with them.

- Check all the validations on each field.
- Check for the default values of fields.
- Wrong inputs to the fields in the forms.
- Options to create forms if any, form delete, view or modify the forms.

Cookie testing:

Test the application by enabling or disabling cookies in the browser options. Test if the cookies are encrypted before writing to user machine. Test the session cookies (i.e. cookies expire after the sessions ends), check for login sessions and user stats after session ends. Check effect on application security by deleting the cookies.

Validate the HTML/CSS:

Mainly validate the site for HTML syntax errors. Check if site is crawlable to different search engines.

Database testing:

Check for data integrity and errors while editing, deleting, modifying forms or any DB related functionality. Check if all the database queries are executing correctly, whether data is retrieved correctly and-also updated correctly.

2) Usability Testing:

Test for navigation:

Navigation means how the user surfs web pages, different controls like buttons, boxes or how using the links on the pages to surf different pages.

Usability testing includes:

Web site should be easy to use. Instructions should be provided clearly. Check if the provided instructions are correct and whether they satisfy purpose. Main menu should be provided on each page. It should be consistent.

Content checking:

Content should be logical and easy to understand. Check for spelling errors. All the anchor text links should be working properly. Images should be placed properly with proper sizes. Validate all for UI testing.

Other user information for user help:

Like search option, sitemap, help files etc. Sitemap should be present with all the links in web sites with proper tree view of navigation. Check for all links on the sitemap. "Search in the site" option will help users to find content pages they are looking for easily and quickly.

3) Interface Testing:

The main interfaces are:

Web server and application server interface
Application server and Database server interface.

Check if all the interactions between these servers are executed properly. Errors are handled properly. If database or web server returns any error message for any query by application server then application server should catch and display these error messages appropriately to users. Check what happens if any interruptions to any transactions in-between? Check what happens if connection(s) to web server is reset in between?

4) Compatibility/Functionality Testing:

See which compatibility test to be executed:

- Browser compatibility
- Operating system compatibility
- Mobile browsing (if applicable)
- Printing options

Browser compatibility:

Web site coding should be cross browser platform compatible including UI functionality, performing security checks or validations then give more stress on browser compatibility testing of your web application. Test web application on Internet explorer version 8.X.

OS compatibility:

Test web application(s) on different operating systems like Windows, Solaris, or other OS environments if applicable to the NRC production environment.

Mobile browsing (if applicable):

Test web pages on mobile browsers.

Printing options:

If giving page-printing options then make sure fonts, page alignment, page graphics getting printed properly. Pages should be fit to paper size or as per the size mentioned in printing option.

Level of Effort

The level of effort to complete Tasks 1 and 2 is estimated to be approximately 890 hours.

D. STANDARD MEETINGS AND REPORTS

Meetings

The Contractor shall attend *biweekly* status meetings, as requested at NRC Headquarters in Rockville, MD with the PM and/or other NRC staff to discuss status of all active tasks. After the initial project plan has been reviewed and approved by the NRC, the Contractor shall maintain the project plan in NRC's Enterprise Project Management System. The project plan shall be kept up to date and shall be discussed at the *biweekly* status meeting.

The Contractor shall attend the *monthly* meeting, as requested to analyze the impact on the proposed data standards.

Reports

The Contractor shall provide a *biweekly* written Status Report, to include a brief summary of significant activities, problems and developments occurring during the reporting period. This Report shall include information for each task listed in one of the following categories: active, completed, on hold (with explanation as to why the task is on hold), or canceled. All active tasks shall have a task resource breakdown (projected and current) listed, and an up-to-date status of all deliverables with completed and scheduled delivery dates. In addition, the report shall include the total cost and remaining amount on the Job Code..

The NRC work item manager/client shall notify the Contractor of system change requests using the Rational ClearQuest change request system, in accordance with the Delivery Order, Statement Of Work, Section C.3, Subsections 3.1 "Maintenance" and 3.2 "Maintenance Change Request Process." The Contractor shall follow the procedures contained in the "OIS Application Change Request System Guide using Rational ClearQuest" to document all maintenance work performed and completed.

E. SCHEDULE OF DELIVERABLES

All deliverables shall be delivered in both hard copy and electronic format to the NRC work item manager by the date specified in the Work Item delivery schedule or an alternate date mutually agreed upon by the Contractor and the NRC work item manager.

The Contractor shall provide (1) printed copy of each draft and the final deliverable, and shall also provide each deliverable in electronic format, using applications appropriate for each document. The format of each deliverables shall be MS Project for the Project Plan and MS Word for any documents.

Deliverables will be inspected and the Contractor notified of the findings within five (5) work days by the NRC work item manager.

<u>Deliverable</u>	<u>Responsibility</u>	<u>Delivery Schedule</u>
Request for assistance in solving problem	OIS Lead Analyst/User	As required
Review and authorize request	NRC TOM	Within 2 workday after receipt
Work Plan for resolving request	Contractor	Whenever work effort will exceed 8 hours
Work effort nearing ceiling	Contractor	When less than 25 percent of maximum authorized hours are available
Deployment	Contractor/NRC	When product to CM effort tested and ready for deployment
Work effort status reports	Contractor	(1) As required, and (2) When ready for Deployment
Project Plan As described in task 1	Contractor	10 days after award
Recommendations report as described in task 2	Contractor	5 days after test has been completed

F. PLACE OF PERFORMANCE

Work performed under this contract may be located at the NRC site in Rockville, Maryland or at the contractor's site. The Government shall provide the following: LAN account for all

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personnel, desktop configuration for on-site employees, shared workspace for staff, System Architect on-site access as well as any applicable materials.

G. EXPERTISE/SKILLS

The Contractor shall provide personnel with the following skills/experience:

- Demonstrated ability to perform research and analysis, perform problem source identification and resolution.
- Excellent communication and interpersonal skills.
- Competency in writing user and technical requirements and documentation as demonstrated by prior assignments.
- Knowledge of web/client application testing methodologies and processes and
- Knowledge of Crystal Reports and IBM Rational ClearQuest

H. WORK ITEM MANAGER

The manager for this work item is Tim Alston, (301) 415-4046.