

ORDER FOR SUPPLIES OR SERVICES

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

BPA NO.

1. DATE OF ORDER SEP 09 2009		2. CONTRACT NO. (If any) NRC-42-07-481		6. SHIP TO:	
3. ORDER NO. 0064		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:Kala Shankar, 301-492-3638 Mail Stop TWB-01-B10M Washington, DC 20555		4. REQUISITION/REFERENCE NO. 42-07-481T064 NRO-09748164012		b. STREET ADDRESS Attn: Sally Adams, 415 0509	
7. TO:		c. CITY Washington		d. STATE DC	e. ZIP CODE 20555
a. NAME OF CONTRACTOR N J NUMARK ASSOCIATES INC NUMARK ASSOCIATES		f. SHIP VIA		8. TYPE OF ORDER	
b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE		<input checked="" type="checkbox"/> b. DELIVERY	
c. STREET ADDRESS 1220 19TH ST NW 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 WASHINGTON		e. STATE DC	f. ZIP CODE 200362444		
9. ACCOUNTING AND APPROPRIATION DATA 925-15-171-111; Q-4012; 252A; 31X0200 Obligate \$30,000 Contractor DUNS: 788247377		10. REQUISITIONING OFFICE NRO			
11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT Destination	
<input checked="" type="checkbox"/> a. SMALL		<input type="checkbox"/> b. OTHER THAN SMALL		<input type="checkbox"/> c. DISADVANTAGED	
<input type="checkbox"/> d. WOMEN-OWNED		<input type="checkbox"/> e. HUBZone		<input type="checkbox"/> f. EMERGING SMALIBUSINESS	
<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED					
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	

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. 64 under Contract No. NRC-42-07-481 Title: "Review of Calvert Cliffs RCOL in the areas relating to Geotechnical engineering (SRP 2.5.4 and 2.5.5)" Period of Performance: 09/04/2009 - 09/03/2012 Estimated Reimbursable Cost: \$180,810 Fixed Fee: \$12,657 Total Cost Plus Fixed Fee: \$193,467 Funding in the amount of \$30,000 is being provided. See continuation pages					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages) 17(i) GRAND TOTAL
	21. MAIL INVOICE TO:						
	a. NAME U.S. Nuclear Regulatory Commission See Attachment 7 of the basic contract						
	b. STREET ADDRESS (or P.O. Box) Attn: (NRC-42-07-481-T064)						
c. CITY Washington		d. STATE DC	e. ZIP CODE 20555				
22. UNITED STATES OF AMERICA BY (Signature) <i>Kala Shankar</i> 9/4/09					23. NAME (Typed) Kala Shankar Contracting Officer TITLE: CONTRACTING/ORDERING OFFICER		

NRC-42-07-481 0064

In accordance with Section G.4, Task Order Procedures, of Contract No. NRC- 42-07-481, this definitizes Task Order No. 64. The effort shall be performed in accordance with the attached Statement of Work.

Task Order No. 64 shall be in effect thirty six months from date of award, with a cost ceiling of \$193,467. The amount of \$180,810 represents the estimated reimbursable costs, and the amount of \$12,657 represents the fixed fee.

The amount obligated by the Government with respect to this task order is \$30,000, of which approximately \$28,037 represents the estimated reimbursable costs, and the amount of \$1,963 represents the fixed fee.

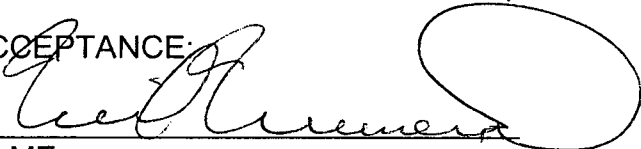
The issuance of this task order does not amend any terms or conditions of the subject contract.

Your contacts during the course of this task order are:

Technical Matter: David D'Abate
Project Officer
301-415-0667

Contractual Matters: Kala Shankar
Contract Specialist
301-492-3838

Acceptance of Task Order No. 64 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

President

TITLE

9/4/09

DATE

TASK ORDER STATEMENT OF WORK

JCN Q-4012	Contractor Numark Associates, Inc.	Task Order No. NRC 42-07-481-064
Applicant Unistar	Design/Site US EPR / Calvert Cliffs	Docket No. 5200016
Title/Description Review of Calvert Cliffs RCOL in the Areas Relating to Geotechnical Engineering (SRP 2.5.4 and 2.5.5)		
TAC No. RX0xxx	B&R Number 925-15-171-111	SRP or ESRP Section(s) 2.5.4 and 2.5.5
NRC Task Order Project Officer (PO)		
Sally Adams	301-415-0209	Sally.Adams@nrc.gov
NRC Technical Monitor (TM)		
Ricardo Rodriguez	301-415-3185	ricardo.rodriguez@nrc.gov

1.0 BACKGROUND

Combined Operating License (COL) Applications are submitted pursuant to Part 52 of Title 10 of the *Code of Federal Regulations* (10 CFR 52), "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants." The U.S. Nuclear Regulatory Commission (NRC) reviews COL Applications based on information furnished by electric utility companies pursuant to 10 CFR 52.79, "Contents of Applications Technical Information."

A Standard Review Plan (NUREG-0800) is prepared for the guidance of staff reviewers in the Office of New Reactors in performing safety reviews of applications to construct or operate nuclear power plants and the review of applications to approve standard designs and sites for nuclear power plants. The principal purpose of the SRP is to assure the quality and uniformity of staff safety reviews.

An Environmental Safety Review Plan (NUREG-1555) is prepared for the guidance of staff reviewers in performing environmental reviews of applications related to nuclear power plants. The ESRPs are companions to regulatory guides that address siting and environmental issues. As with NUREG-0800 the purpose of the ESRP is to assure the quality and uniformity of environmental reviews.

The staff publishes the results of these reviews in a Safety Evaluation Report (SER).

2.0 OBJECTIVE

The objective of this task order is to obtain technical expertise from the contractor to assist the NRC staff in determining whether the subject COL application meets appropriate regulatory requirements. Specifically, technical assistance is required to assist the staff in determining the adequacy of the geotechnical site characterizations of the Calvert Cliffs COL application sections 2.5.4 and 2.5.5.

3.0 WORK REQUIREMENTS, SCHEDULE AND DELIVERABLES

Tasks/Standards	Scheduled Completion	Deliverables
<p>1. REQUIREMENT: Become familiar with 10 CFR Part 52 (Combined Licenses), 10 CFR Part 100 (Reactor Site Criteria), section 2.5.4 and 2.5.5 of the Standard Review Plan (NUREG-0800) and Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)," RG 1.132, "Site Investigations for Foundations of Nuclear Power Plants," RG 1.138, "Laboratory Investigations for Engineering Analysis and Design of Nuclear Power Plants," and RG 1.198, "Procedures and Criteria for Assessing Seismic Soil Liquefaction at Nuclear Power Plant Sites."</p> <p>STANDARD: Written confirmation that familiarization is complete.</p>	<p>*One week after authorization of work</p>	<p>Documentation that assigned personnel have reviewed references</p>
<p>2. REQUIREMENT: Participate in an orientation/kick-off meeting with the NRC staff to discuss the scope of the work, expectations and contract management</p> <p>STANDARD: Attendance by individuals designated by NRC.</p>	<p>*Two weeks after authorization of work</p>	<p>N/A</p>
<p>3. REQUIREMENT: Review the COL application Section 2.5.4 and 2.5.5 to determine the adequacy of meeting the regulatory requirements and following RG guidelines. Determine if the methods and approach proposed by the applicant meet the review guidance, perform confirmatory analysis if needed. Identify issues and the need for any additional or clarifying information (requests for additional information, RAIs). Prepare a Technical Letter Report (TLR).</p> <p>STANDARD: Complete Technical Letter Report that includes RAIs and confirmatory analysis results. Follow the guidance of RAI and report requirements as described in the umbrella contract. One round of comment incorporation is acceptable.</p>		

Tasks/Standards	Scheduled Completion	Deliverables
a. About 50 percent of the Task.	*10 weeks after starting detailed COLA review as notified by the TM	Technical Letter Report and RAIs, if applicable
b. Completion of the Task.	*5 weeks after completion of task 3.a	Final RAIs
<p>4. REQUIREMENT: Review response to the RAIs to determine if the applicant has adequately resolved the outstanding issues. Identify any other open items.</p> <p>STANDARD: Complete Technical Letter Report.</p>	Three weeks after receipt of responses to the RAIs	Technical Letter Report
<p>5. REQUIREMENT: (<i>If applicable</i>) Prepare for and travel to the applicant's office and participate in an NRC review team to:</p> <p>a. Audit the Calvert Cliffs site as described in the COL application to examine geotechnical features (such as natural and/or manmade slopes, dams and/or dikes, etc.) and engineering related activities, such as drilling, soil and rock sampling and storing, field and laboratory tests, soil and rock samples from borings, test pits, and trenches excavated across the site.</p> <p>b. Evaluate and discuss the applicant's responses to the unresolved issues identified in Task 4 to determine if the outstanding issues are adequately resolved.</p> <p>c. Prepare a trip report (as an input to NRC Audit Report) to summarize the information reviewed, results of the audit, and meeting discussions.</p> <p>STANDARD: Complete evaluation as defined in Task. Submit Trip Report.</p>	*Two weeks after the trip.	Trip Report
<p>6. REQUIREMENT: Review the applicant's response to the open items identified as a result of the design audit (Tasks 4 & 5). Identify any unresolved issues and prepare Technical Letter Report.</p> <p>STANDARD: Complete Technical Letter Report</p>	*Three weeks after receipt of responses to the open items	Technical Letter Report

Tasks/Standards	Scheduled Completion	Deliverables
7. REQUIREMENT: As needed and requested by the staff, provide technical support to the staff during related ACRS meetings and hearing proceedings. STANDARD: Ensure presentation materials are reviewed and approved by NRC staff.	TBD	Prepare Presentation Materials. Attend Meetings, if required

* These Work Schedules are subject to change by the NRC Contracting Officer (CO) to support the needs of the NRC Licensing Program Plan.

The Technical Monitor may issue technical instruction 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. Specific qualifications for this effort include:

- Senior Geotechnical Engineer/Consultant with broad and in depth knowledge of field and laboratory methods for identifying static and dynamic engineering properties of soil and rock, analyses of response of soil or rock to static and dynamic loadings, liquefaction potential, static and dynamic bearing capacity and settlement of soils and foundations, seismic/dynamic lateral earth pressure on foundation and wall, slope stability, and subsurface material improvement techniques.

One Senior Geotechnical Engineer/Consultant is needed for this task order.

The contractor shall provide a contractor project manager (PM) to oversee the effort, 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 the following deliverables in hard copy and electronic formats. The electronic format shall be provided in MS Word or other word processing software approved by the TM. For each deliverable, the contractor shall provide one hard copy and electronic copy to both the PM and the TM. The schedule for deliverables shall be contained in the approved project plan for the task order effort.

In all correspondence, include identifying information: JCN No.: Q-4012; Technical Assignment Control No. (TAC), RX0xxx Task Order No.: _; the licensee: UniStar; and, the site: Calvert Cliffs

1. At the completion of Task 3, submit a Technical Letter Report (TLR) that contains a list of "Requests for Additional Information (RAIs)" (see umbrella contract for the guidelines for developing RAIs) and a summary of any confirmatory analysis performed, including detailed assumptions, data used, analysis method, results and conclusions.
2. At the completion of Task 4, submit a TLR that contains a summary of the findings from the responses and resolutions of the RAIs, including a separate list of the remaining open items and the basis for such determination.
3. At the completion of Task 5, submit a trip report, as an input to NRC audit report, that contains a summary of documents audited, a summary of meeting discussion conducted with the applicant, list of outstanding issues, significance of these issues, and the basis for the conclusion.
4. At the completion of Task 6, submit a TLR that contains a summary of the findings from the responses and resolutions of the open items, and determine if there is any unresolved open item.

6.0 MEETINGS AND TRAVEL

One two-person, one-day working meeting to kickoff project and contractor orientation.*

If required, one person, three-day trips to the applicant's facility (Tasks 5).

Two one-person, one-day working meetings at NRC headquarters to review deliverables*

One one-person, one-day meetings, if needed, for hearing or ACRS meeting.

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

7.0 NRC FURNISHED MATERIAL

The following NRC furnished materials will be provided to the contractor together with SOW:

- a. CD-ROM containing Calvert Cliffs COLA Sections and the relevant Appendices from the application.
- b. CD-ROM containing the Final Safety Evaluation Report of the DCD.

8.0 LEVEL OF EFFORT

The estimated level of effort in professional staff days apportioned among the tasks and by labor category is as follows:

Task(s)	Labor Category	Level of Effort (hours)			
		FY-09	FY-10	FY-11	FY-12
1	Sr. Geotechnical Engineer/Consultant	20			
2	Sr. Geotechnical Engineer/Consultant		15		
3	Sr. Geotechnical Engineer/Consultant		150	80	
4	Sr. Geotechnical Engineer/Consultant		100	70	
5	Sr. Geotechnical Engineer/Consultant		75		
6	Sr. Geotechnical Engineer/Consultant			60	20
7	Sr. Geotechnical Engineer/Consultant				50
Task 1-7	Project Manager	20	50	20	5
Task 1-7	Admin Support	20	100	25	25
Total		60	490	255	100

9.0 PERIOD OF PERFORMANCE

The projected period of performance is 36 months from date of the task order award.

10.0. OTHER APPLICABLE INFORMATION

a. License Fee Recovery

All work under this task order is fee recoverable and must be charged to the appropriate TAC number(s).

b. Assumptions and Understandings:

The level of effort for Task 3 is based on the assumption that the contractor is familiar with the review procedures of SRP Sections 2.5.4 and 2.5.5.

The level of effort for Task 4 is based on the assumption that there will be 50 RAIs and it will take, on the average, 2.5 hours to review and address each response.

The level of effort for Task 5 is based on two, one-person, three-day trips (including travel time) plus three days to prepare for the trips and to write the trip reports.

The level of effort for Task 6 is based on the need to resolve 15 open items and it will take, on the average, 4 hours to review and resolve each open item, and prepare a TLR.

The level of effort in Task 7 is based on requiring one trip to the site and one trip to NRC headquarters.

It is assumed that the contractor has access to the NRC furnished material available on the Internet.

It is understood that the scope of the review consists of conference calls with the NRC staff, and with the NRC staff and the applicant, to discuss open items in an attempt to obtain additional information or reach resolution.

The primary deliverable, or output of this regulatory review, shall be the Technical Letter Report (TLR). The TLR contains a list of "Requests for Additional Information (RAIs)" and a summary of any confirmatory analysis performed.

Attachments:

1. Outline, Format, and Content for the TER Input

Attachment 1
Outline, format, and sample for the TER (draft SER input)

X.Y.Z Title of Section

X.Y.Z.1 Regulatory Criteria

Develop an outline that follows the format and topics presented in the AREAS OF REVIEW section of the appropriate SRP section. This information will correspond to the SRP sections that are the subject of this Task Order. For each unique SRP review area contained in the TER, the contractor should specify the acceptance criteria that were used for its review. Summarize the applicable regulations and other regulatory references, including regulatory guides, generic letters, or NRC staff positions, that are relevant to this topic.

Technical reviewers are encouraged to use the descriptions of acceptance criteria from previously issued Safety Evaluation Reports for completed design certifications (e.g., NUREG-1793 for the AP1000 Final Safety Evaluation Report) when applicable.

X.Y.Z.2 Summary of Technical Information

Describe the key technical points that were made in the application. It is not necessary to restate the application verbatim or to address all the details in the application.

X.Y.Z.3 Technical Evaluation

Document the contractor's evaluation of the application against the relevant regulatory criteria. The evaluation should support the contractor's conclusions as to whether the regulations are met. State what the contractor did to evaluate the applicant's submittal. The contractor's evaluation may include verification that the applicant followed applicable regulatory guidance, performance of independent calculations, and validation that the appropriate assumptions were made. The contractor may state that certain information provided by the applicant was not considered essential to the contractor's review and was not reviewed by the contractor. While the contractor may summarize the information offered by the applicant in support of its application, the contractor should clearly articulate the bases for its conclusions.

Contractor should provide a clear and concise description of any request for additional information (RAIs). The description should include a justification of the requested information that the requested information is not provided in the application and is absolutely needed to determine or confirm whether the relevant regulatory requirements (articulate specific requirements) have been met. The contractor should discuss its technical evaluation of the licensee's response to the RAIs and determine whether it is acceptable. The contractor should clearly articulate the bases for its acceptance or rejection. If the RAI response is not acceptable, it will be classified as an 'open item'. All open items will be resolved in Phase 3.

X.Y.Z.4 Conclusions

Summarize the contractor's conclusions regarding the application, including words such as the following. As set forth above in Sections X.Y.Z.2 and X.Y.Z.3 of this report, [provide specific bases for conclusions that follow]. Accordingly, the staff concludes that the application meets [or, if applicable, does not meet] the relevant requirements of 10 CFR Part XX and is [or, if applicable, is not] acceptable.

X.Y.Z.5 References