

**ORDER FOR SUPPLIES OR SERVICES**

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

BPA NO.

1. DATE OF ORDER		2. CONTRACT NO. (If any) NRC-42-07-481		6. SHIP TO:	
3. ORDER NO. 0054		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. 42-07-481T054 NRO-09481012		b. STREET ADDRESS Attn: David D'Abate, 301-415-0667	
7. TO:		c. CITY Washington		d. STATE DC	e. ZIP CODE 20555
a. NAME OF CONTRACTOR N J NUMARK ASSOCIATES INC NUMARK ASSOCIATES, INC.		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		10. REQUISITIONING OFFICE NRO	
9. ACCOUNTING AND APPROPRIATION DATA 925-15-171-111; Q-4012; 252A; 31X0200 Obligate \$75,000 Contractor DUNS: 788247377		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 SMALL BUSINESS	
<input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED		13. PLACE OF		14. GOVERNMENT B/L NO.	
a. INSPECTION		b. ACCEPTANCE		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
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. 54 under Contract No. NRC-42-07-481  Title: "Review of Bell Bend SCOLA for Seismic Design of structures, components, equipment, and systems (SRP 3.7)"  Period of Performance: 12/16/2008 - 12/15/2010 Estimated Reimbursable Cost: \$308,122 Fixed Fee: \$21,569 Total Cost Plus Fixed Fee: \$329,691  Funding in the amount of \$75,000 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)
	21. MAIL INVOICE TO:						
	a. NAME U.S. Nuclear Regulatory Commission See Attachment 7 of the basic contract						17(i) GRAND TOTAL
	b. STREET ADDRESS (or P.O. Box) Attn: (NRC-42-07-481-T054)						
c. CITY Washington		d. STATE DC	e. ZIP CODE 20555				

22. UNITED STATES OF AMERICA BY (Signature) <i>Kala Shankar</i>	23. NAME (Typed) Kala Shankar Contracting Officer TITLE: CONTRACTING/ORDERING OFFICER
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In accordance with Section G.4, Task Order Procedures, of Contract No. NRC- 42-07-481, this definitizes Task Order No. 54. The effort shall be performed in accordance with the attached Statement of Work.

Task Order No. 54 shall be in effect twenty four months from date of award, with a cost ceiling of \$329,691. The amount of \$308,122 represents the estimated reimbursable costs, and the amount of \$21,569 represents the fixed fee.

The amount obligated by the Government with respect to this task order is \$75,000, of which approximately \$70,423 represents the estimated reimbursable costs, and the amount of \$4,577 represents the fixed fee.

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

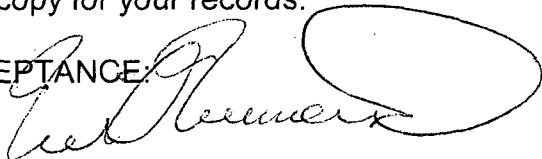
Your contacts during the course of this task order are:

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

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

Acceptance of Task Order No. 54 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

12/1/01

DATE

## TASK ORDER STATEMENT OF WORK

JCN Q-4012	Contractor Numark Associates, Inc	Task Order No. NRC-42-07-481-54
Applicant PPL Generation	Design/Site EPR/Bell Bend	Docket No. Project No. 762
Title/Description Review of Bell Bend Subsequent Combined Operating License (COL) Application for Seismic Design of Structures, Components, Equipment, and Systems (SRP 3.7)		
TAC No. RX0379	B&R Number 925-15-171-111	SRP or ESRP Section(s) 3.7
NRC Task Order Project Officer (PO) David D'Abate                                      301-415-0667                                      David.dabate@nrc.gov		
NRC Technical Monitor (TM) Pravin Patel    301-415-1505    Pravin.patel@nrc.gov		

### 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 or not the subject SCOL application meets appropriate regulatory requirements relating to (1) the seismic design parameters and design ground motions (2) modeling, computer codes, seismic analyses, and calculation of the seismic loading used in the seismic analyses and design of plant systems, structures, and components (SSCs), (3) capabilities and performance of the instrumentation system to adequately measure the effects of earthquakes, and (4) instrumentation provided to promptly evaluate the seismic response of nuclear power plant features important to safety after an earthquake,

Tasks/Standards	Scheduled Completion	Deliverables
<p>application sections 3.7.1, 3.7.2, 3.7.3, and 3.7.4 and related documents to determine if the methods proposed by the applicant meet the appropriate review guidance. Also, review the adequacy and acceptability of the methods/data used by the applicant to demonstrate its implementation of the COL action items and compliance with the interface parameters stipulated in EPR certified design (CD) and other pertinent documents. All deviations from and/or modifications to the EPR CD and designated COL action items and/or interface parameter requirements should be evaluated and justified. Plant specific issues and those aspects of the application that need further resolution or clarification shall be identified as Request for Additional Information (RAI). <b>(Phase 1 task)</b></p> <ul style="list-style-type: none"> <li>• Review response to pertinent 'COL Action Items' (identified in the SER for EPR certified design).</li> <li>• Perform confirmatory soil-structure interaction analyses using validated computer codes to verify the adequacy of the modeling technique for the site conditions</li> <li>• Perform independent confirmatory seismic analyses, as appropriate, to verify the adequacy of (1) the seismic design parameters, design ground motions, floor design response spectrum, and time histories (2) modeling, computer codes, seismic analyses, and calculation of the seismic loading used in the seismic analyses and design of plant systems, structures, and components (SSCs), (3) capabilities and performance of the</li> </ul>		

Tasks/Standards	Scheduled Completion	Deliverables
<p>5. REQUIREMENT: Prepare for and travel to the applicant's designated facilities and participate in an NRC review team to:</p> <ul style="list-style-type: none"> <li>a. Audit the analysis reports and design calculations as described in the SCOL application for Lee.</li> <li>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.</li> <li>c. Prepare a trip report (as an input to NRC Audit Report) to summarize the information reviewed, results of the audit, and meeting discussions. Update the draft TER with open items for input to SER with Open items. <b>(Phase 2 task)</b></li> </ul> <p>STANDARD: Complete evaluation as defined in Task. Submit Trip Report within 2 weeks of site review.</p>	<p>*Two weeks after the trip</p>	<p>Trip Report and updated the draft TER with open items</p>
<p>6. REQUIREMENT: Review the applicant's response to the open items identified as a result of the audit (tasks 4 &amp; 5). Identify any unresolved issues and prepare a draft TER with no open items for input to a safety evaluation. Incorporate NRC's comments and prepare Final TER. <b>(Phase 4 task)</b></p> <p>STANDARD: Complete TER that follows the NRC provided template without deviation.</p>	<p>* Four weeks after receipt of responses</p>	<p>SER input with open items resolved.</p>

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), RX0379, Order No.: 54; the licensee: PPL Generation; and, the site: Bell Bend.

1. At the completion of Task 4, submit a Technical Evaluation Report (TER) that contains, for each Sub-section of the SER (see **Attachment 1** for the outline, format and content of the report): a description of the information proposed by the applicant including the assumptions for the analysis, design, and references to consensus standards; review findings (including the basis for the findings), as a result of comparison with the review guidelines; and a list of "Requests for Additional Information (RAIs). See **Attachment 1** of Appendix J contract SOW for the guidelines for developing RAIs.
2. At the completion of Task 5, submit a TER (**see Attachment 1**) that contains a summary of the review results and the updated report completed under Task 3 incorporating the

a. License Fee Recovery

All work under this task order is/is not 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 (ESRP/SRP) Sections 3.7.

The level of effort for Task 4 is based on the assumption that there will be 35 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, two-person, five-day trips (including travel time) plus four 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 20 open items and it will take, on the average, 4 hours to review and resolve each open item, and prepare an SER.

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.

During the course of the review, the Technical Monitor, and possibly other NRC personnel, may travel to the contractor site to discuss the status of the review and participate in the resolution of open items. It is assumed that the level of effort covers such a meeting.

Attachments: \*\*\*refer RFP for attachments\*\*\*

1. Outline, Format, and Content for the TER Input
2. Acceptance Criteria Checklist. Form NRC office instruction NRO-REG-100, "Acceptance Review progress for Design Certification and combined license applications", (ML071980027), Attachment C, Table 1