

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1 12

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

1. DATE OF ORDER 07/30/2015		2. CONTRACT NO. (If any) NRC-HQ-25-14-E-0004		6. SHIP TO: a. NAME OF CONSIGNEE ATTN DAVIDA CUNANAN	
3. ORDER NO. NRC-HQ-20-15-T-0001		4. REQUISITION/REFERENCE NO. NRR-15-0201		b. STREET ADDRESS US NUCLEAR REGULATORY COMMISSION OFFICE OF NUCLEAR REACTOR REGULATION MAILSTOP OWFN 10 B3	
5. ISSUING OFFICE (Address correspondence to) US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP TWFN-5E03 ATTN ARACELIS PEREZ-ORTIZ WASHINGTON DC 20555-0001				c. CITY WASHINGTON	
				d. STATE DC	e. ZIP CODE 20555
7. TO: a. NAME OF CONTRACTOR NUMARK ASSOCIATES INC				f. SHIP VIA	
b. COMPANY NAME				8. TYPE OF ORDER	
c. STREET ADDRESS 1220 19TH ST NW STE 500				<input type="checkbox"/> a. PURCHASE 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.	<input checked="" type="checkbox"/> b. DELIVERY 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 See Schedule				10. REQUISITIONING OFFICE OFF OF NUCLEAR REACTOR REGULATION	

11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <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. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					12. F.O.B. POINT
13. PLACE OF		14. GOVERNMENT B/I/L NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)		16. DISCOUNT TERMS 30
a. INSPECTION Destination	b. ACCEPTANCE Destination				

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)
	Task Order 03, Entitled "Technical Assistance in Support of "Diablo Canyon Power Plant, Unit Nos. 1 and 2 - Revision of Updated Final Safety Analysis Report for BEACON Power Distribution Monitoring System Methodology and Technical Specification Continued ...					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
a. NAME US NUCLEAR REGULATORY COMMISSION					\$0.00	
b. STREET ADDRESS (or P.O. Box) ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE MAILSTOP 03-E17A						17(i) GRAND TOTAL
c. CITY ROCKVILLE		d. STATE MD	e. ZIP CODE 20852-2738			\$79,463.00

22. UNITED STATES OF AMERICA BY (Signature) 		07/30/2015	23. NAME (Typed) ARACELIS PEREZ-ORTIZ TITLE: CONTRACTING/ORDERING OFFICER		
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OPTIONAL FORM 347 (Rev. 2/2012) Prescribed by GSA/FAR 48 CFR 53.213(f)

SUNSI REVIEW COMPLETE

TEMPLATE - ANM001

AUG 17 2015

ANM002

TASK ORDER 03 – Unrestricted EWC IDIQ for Numark

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 PRICE/COST SCHEDULE

CLIN	DESCRIPTION OF SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL COST PLUS FIXED FEE
0001	Contractor to provide Technical Assistance in accordance with section C: DESCRIPTION/ SPECIFICATIONS/ STATEMENT OF WORK	[REDACTED]	[REDACTED]	[REDACTED]
	Total	[REDACTED]	[REDACTED]	\$79,463.00

NRCB040A CONSIDERATION AND OBLIGATION—COST-PLUS-FIXED-FEE ALTERNATE I

(a) The total estimated cost to the Government for full performance of this contract is **\$79,463.00** of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] represents the fixed-fee.

(b) There shall be no adjustment in the amount of the Contractor's fixed fee.

(c) The amount currently obligated by the Government with respect to this contract is [REDACTED] of which the sum of [REDACTED] represents the estimated reimbursable costs, and of which [REDACTED] represents the fixed-fee.

(d) It is estimated that the amount currently obligated will cover performance through **September 2015**.

(e) This is an incrementally-funded contract and FAR 52.232-22 - "Limitation of Funds" applies.

(f) In accordance with FAR 52.216-8 - Fixed Fee, it is the policy of the NRC to withhold payment of fee after payment of 85 percent of the fee has been paid in order to protect the Government's interest. The amount of fixed-fee withheld from the contractor will not exceed [REDACTED] percent of the total fee or \$ [REDACTED] whichever is less. Accordingly, the maximum amount of fixed-fee that may be held in reserve is [REDACTED].

(End of Clause)

SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

NRC Requisition Office: Office of Nuclear Reactor Regulation

Fee Recoverable: Yes

TAC Numbers: MF6120

1. PROJECT DESCRIPTION

This project is titled, "Technical Assistance in Support of "Diablo Canyon Power Plant, Unit Nos. 1 and 2 - Revision of Updated Final Safety Analysis Report for BEACON Power Distribution Monitoring System Methodology and Technical Specification 5.6.5 (MF6120)."

The objective of this task order is to obtain technical expertise to assist the U.S. Nuclear Regulatory Commission (NRC) staff in determining the technical adequacy of the above license amendment request (LAR) submitted by Pacific Gas and Electric Company (Applicant or PGEC).

The Statement of Work (SOW) for this Task Order falls within the unrestricted part of NRC IDIQ Enterprise-Wide Contract entitled Technical Assistance in Support of Agency Environmental and Reactor Programs, paragraph 3.2, Licensing Support.

2. BACKGROUND

In accordance with the provisions of Section 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), the applicant has submitted a request for an amendment to update the current references in the Diablo Canyon Nuclear Plant UFSAR and TS Bases from the BEACON Power Distribution Monitoring System (PDMS) methodology contained in WCAP-12472-P-A, Addendum 1-A, "BEACON Core Monitoring and Operations Support System," to the Westinghouse BEACON PDMS methodology contained in WCAP-12472-P-A, Addendum 4, Revision 0, "BEACON Core Monitoring and Operation Support System"

The proposed change involves a change to the Best Estimate Analyzer for the Core Operations-Nuclear (BEACON) methodology described in the Updated Final Safety Analysis Report (UFSAR), Section 4.3.2.2, and "Power Distribution." In addition, the proposed change would revise the references to this methodology in Technical Specification (TS) Bases Sections 3.1.7, "Rod Position Indication;" 3.2.1, "Heat Flux Hot Channel Factor (FQ (Z));" 3.2.2, "Nuclear Enthalpy Rise Hot Channel Factor ($F^N\Delta_H$);" 3.2.4, "Quadrant Power Tilt Ratio (QPTR);" and 3.3.1, "Reactor Trip System (RTS) Instrumentation".

The proposed change would update the current references in the UFSAR and TS Bases from the BEACON Power Distribution Monitoring System (PDMS) methodology contained in WCAP-12472-P-A, Addendum 1-A, "BEACON Core Monitoring and Operations Support System," to the Westinghouse BEACON PDMS methodology contained in WCAP-12472-P-A, Addendum 4, Revision 0, "BEACON Core Monitoring and Operation Support System"

The proposed change would also revise TS 5.6.5, "CORE OPERATING LIMITS REPORT (COLR)," Section b to replace WCAP-11596-P-A, "Qualification of the PHOENIX-P/ANC Nuclear Design System for Pressurized Water Reactor Cores," with NRC-approved WCAP-16045-P-A, "Qualification of the Two- Dimensional Transport Code PARAGON ," and NRG-

approved WCAP-16045-P-A, Addendum 1-A, "Qualification of the NEXUS Nuclear Data Methodology". The reference to the topical reports (TR) WCAP-16045-P-A and WCAP-16045-P-A, Addendum 1-A in TS 5.6.5 is without date and revision number consistent with Amendments No. 195 and 196 for DCPD Units 1 and 2, respectively, that adopted TSTF-363, "Revise Topical Report References in ITS 5.6.5, COLR."

3. SCOPE OF WORK

The contractor must provide all resources necessary to accomplish the tasks and deliverables described in this statement of work (SOW).

The contractor must perform a review, confirmatory analysis as necessary, determined by the COR, and evaluation of the technical and regulatory basis for the LAR. As an output of this task order, the contractor must provide to the NRC the Technical Evaluation Report (TER) that will be used as input for the NRC staff's Safety Evaluation Report (SER), that documents the NRC's technical, legal, and safety basis for approving the LAR.

4. SPECIFIC TASKS

The contractor must perform the following tasks:

Task 1. Kickoff Meeting

1. a Preparation for Kickoff Meeting

Become familiar with the LAR submittal by the Applicant.

1. b Attend Kickoff Meeting

Attend a one-time kick-off meeting (either in person or via conference call) to discuss the scope of work, expectations, task order management, and performance requirements of the task order. The kick-off meeting shall be scheduled by the COR and held within ten (10) working days after contractor receipt of LAR materials.

Task 2 Review LAR Submission

2. a Evaluate the LAR Submittal

Using the criteria and guidelines found in Standard Review Plan (SRP), review the LAR submitted by the Applicant to determine the technical accuracy and regulatory compliance of the LAR.

2. b Prepare Draft Technical Evaluation Report

Prepare a draft TER that incorporates the results of the contractor's LAR review and evaluation. The draft TER must be organized to parallel the applicable sections in NRC's SRP (NUREG-800), as applicable. The draft TER may include other relevant information that is not included in the SRP. Only input to SER sections requiring revision must be included in the draft TER. The draft TER must contain draft text, tables, and illustrations, as appropriate, suitable for inclusion in NRC's SER. The draft TER must provide sufficient information to adequately support the NRC staff's rationale for why there is reasonable assurance that public

health and safety is protected. The draft TER must be written so that a person with either non-nuclear technical background or non-technical background can understand the basis for conclusions cited.

Prepare final draft TER that incorporates comments provided by the task order Contracting Officer's Representative (COR).

As directed by the COR, participate in conference calls with the Applicant to discuss the LAR materials.

2.c Prepare Final Draft TER

The contractor shall prepare final draft TER that incorporates comments provided by the task order COR.

As directed by the COR, the contractor shall participate in conference calls with the Applicant to discuss the LAR materials.

2. d Prepare Draft Requests for Additional Information

The contractor shall identify unresolved issues and any additional or clarifying information needed in the LAR submission. The contractor shall prepare draft Request for Additional Information (RAIs) for use by NRC in requesting more information from the Applicant to clarify issues raised during review of the LAR. The contractor shall prepare final RAIs that incorporate comments provided by the COR.

As directed by the COR, the contractor shall participate in conference calls with the Applicant to discuss additional information to be provided or clarified with the LAR.

2. e Review RAI Responses and Update TER

The contractor shall review the Applicant's responses to the RAIs to determine whether they adequately resolve the outstanding issues.

2. f Perform Confirmatory Analysis and Provide Updated TER

The contractor shall perform confirmatory analysis as required.

The contractor shall update the draft TER prepared under Task 2.b to incorporate the applicant's RAI responses and revise related portions of the draft text, tables, and illustrations in the TER, and prepare a final updated TER that incorporates comments provided by the COR.

As directed by the COR, the contractor shall participate in conference calls with the Applicant to discuss the responses of the RAIs.

2.g Provide Final Updated TER

The contractor shall prepare the final TER that incorporates any comments provided by the COR.

5. APPLICABLE DOCUMENTS AND STANDARDS

NUREG-0800 SRP, Title 10, Code of Federal regulation (CFR).

6. DELIVERABLES AND DELIVERY SCHEDULE/REPORTING REQUIREMENTS

The schedule for project deliverables is shown in the following table:

Deliverable Number	Deliverable and Acceptance Criteria	Deliverable Due Date
1	For Task 2.b, Draft TER Acceptance Criteria: COR confirms that Draft TER has the required content and follows the required format	NLT 4 weeks after award of task order
2	For Task 2.c, Final Draft TER Acceptance Criteria: COR confirms that all COR comments are addressed in the TER.	NLT 1 week after receipt of COR comments for the Draft TER
3	For Task 2.d, Draft RAIs Acceptance Criteria: COR confirms that Draft RAIs are technically sound, adequately address identified issues, and include a regulatory basis for each request.	NLT 2 weeks after award of task order
4	For Task 2.e, Final RAIs Acceptance Criteria: COR confirms that all COR comments are reflected in the RAIs.	NLT 1 week after receipt of COR comments on the Draft RAIs.
5	For Task 2.f, Draft Updated TER Acceptance Criteria: COR confirms that Draft Updated TER contains required content and incorporates all responses to RAIs from the licensee	NLT 2 weeks after receipt of Applicant's RAI responses
6	For Task 2.g Final Updated TER Acceptance Criteria: All COR comments are addressed in the updated TER	NLT 1 week after receipt of COR comments on Draft Updated TER
7	Per Section F.3 of the base contract, Monthly Letter Status Report (MLSR) and Electronic Spending Plan (ESP) Acceptance Criteria: MLSR and ESP are complete and contain all required information.	NLT 20 th day of the month covering the prior month's effort

The above deliverables shall be submitted electronically to the task order COR. The MLSR and ESP must also be submitted to the task order Contracting Officer (CO) as well as to the Office of Administration/Acquisition Management Division to ContractsPOT.Resource@nrc.gov

7. REQUIRED LABOR CATEGORIES/ ESTIMATED LEVEL OF EFFORT

The team must collectively have extensive knowledge in nuclear power plant systems, accident analysis, LOCAs, thermal hydraulics, Neutronics and Westinghouse Standard Technical Specifications (STS).

Labor Category	Minimum Qualification Requirement	Estimated Labor Hours
Senior Technical Reviewer	(1) At least 10 years' experience and extensive knowledge in one or more of the following areas: nuclear power plant systems, Accident Analysis, thermal hydraulics, LOCAs, Neutronics and Westinghouse Standard Technical Specifications (STS). AND (2) A Master's Degree in Mechanical or Nuclear Engineering is required	240
Technical Reviewer(s)	At least 5 years' experience of one or more of the following areas: nuclear power plant systems, Accident Analysis, LOCAs, thermal hydraulics, Neutronics and Westinghouse Standard Technical Specifications (STS).	100
Project Manager	At least 5 years' experience managing technical projects of similar scope.	10
Administrative Support		15
TOTAL ESTIMATED LOE		365

8. GOVERNMENT-FURNISHED PROPERTY

N/A

9. PERIOD OF PERFORMANCE

The period of performance for this task order is as stated below, in SECTION F - Deliveries or Performance NRCF030A PERIOD OF PERFORMANCE ALTERNATE I.

10. PLACE OF PERFORMANCE

Work will be performed at the contractor's site. Contractor personnel must be available to travel to the plant site for necessary audits.

11. SPECIAL CONSIDERATIONS

11.1 TRAVEL/MEETINGS

The COR may request the Contractor to complete the following travel under this task order:

One, 2 Persons, 2 Day Trip to NRC Headquarters or Licensee Facility as determined by the COR.

All travel requires prior written approval from the COR.

11.2 SECURITY

Work on this task order will involve the handling of documents that contain proprietary information. Documents containing proprietary information and must be safeguarded against unauthorized disclosure. After completion of work, the contractor shall either destroy the documents, or return them to the NRC COR. If the contractor elects to destroy the documents, the contractor shall confirm this in an e-mail to the COR with a copy to the CO and include the date and manner in which the documents were destroyed.

11.3 LICENSE FEE RECOVERY

All work under this task order is license fee recoverable.

SECTION F - DELIVERIES OR PERFORMANCE

NRCF030A PERIOD OF PERFORMANCE ALTERNATE I

The period of performance for this task order is twelve months from the effective date of this task order award.

(End of Clause)

SECTION H - SPECIAL CONTRACT REQUIREMENTS

2052.215-70 KEY PERSONNEL. (JAN 1993)

(a) The following individuals are considered to be essential to the successful performance of the work hereunder:

Senior Technical Reviewer	John M. Kulick, P.E.
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*The contractor agrees that personnel may not be removed from the contract work or replaced without compliance with paragraphs (b) and (c) of this section.

(b) If one or more of the key personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the contractor shall immediately notify the contracting officer and shall, subject to the concurrence of the contracting officer, promptly replace the personnel with personnel of at least substantially equal ability and qualifications.

(c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the contracting officer to evaluate the proposed substitution. The contracting officer and the project officer shall evaluate the contractor's request and the contracting officer shall promptly notify the contractor of his or her decision in writing.

(d) If the contracting officer determines that suitable and timely replacement of key personnel who have been reassigned, terminated, or have otherwise become unavailable for the contract work is not reasonably forthcoming, or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the contract or the service order, the contract may be terminated by the contracting officer for default or for the convenience of the Government, as appropriate. If the contracting officer finds the contractor at fault for the condition, the contract price or fixed fee may be equitably adjusted downward to compensate the Government for any resultant delay, loss, or damage.

(End of Clause)

2052.215-71 CONTRACTING OFFICER'S REPRESENTATIVE AUTHORITY

(a) The contracting officer's authorized representative hereinafter referred to contracting officer's representative (COR) for this contract is:

Name: Davida Cunanan
Address: US NRC
NRR/DSS/SRXB/SFT
OWFN/ 10 B3
Washington DC 20555
Telephone Number: 301-415-3537
Email: Davida.Cunanan@nrc.gov

The alternate contracting officer's representative is:

Name: Shaun Anderson
Address: US NRC
NRR/DSS
OWFN 11C12
Washington DC 20555
Telephone Number: 301-415-2039
Email: Shaun.Anderson@nrc.gov

(b) Performance of the work under this contract is subject to the technical direction of the NRC project officer. The term technical direction is defined to include the following:

(1) Technical direction to the contractor which shifts work emphasis between areas of work or tasks, authorizes travel which was unanticipated in the Schedule (i.e., travel not contemplated in the Statement of Work or changes to specific travel identified in the Statement of Work), fills in details, or otherwise serves to accomplish the contractual statement of work.

(2) Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.

(3) Review and, where required by the contract, approve technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government under the contract.

(c) Technical direction must be within the general statement of work stated in the contract. The project officer does not have the authority to and may not issue any technical direction which:

(1) Constitutes an assignment of work outside the general scope of the contract.

(2) Constitutes a change as defined in the "Changes" clause of this contract.

(3) In any way causes an increase or decrease in the total estimated contract cost, the fixed fee, if any, or the time required for contract performance.

(4) Changes any of the expressed terms, conditions, or specifications of the contract.

(5) Terminates the contract, settles any claim or dispute arising under the contract, or issues any unilateral directive whatever.

(d) All technical directions must be issued in writing by the project officer or must be confirmed by the project officer in writing within ten (10) working days after verbal issuance. A copy of the written direction must be furnished to the contracting officer. A copy of NRC Form 445, Request for Approval of Official Foreign Travel, which has received final approval from the NRC must be furnished to the contracting officer.

(e) The contractor shall proceed promptly with the performance of technical directions duly issued by the project officer in the manner prescribed by this clause and within the project officer's authority under the provisions of this clause.

(f) If, in the opinion of the contractor, any instruction or direction issued by the project officer is within one of the categories defined in paragraph (c) of this section, the contractor may not proceed but shall notify the contracting officer in writing within five (5) working days after the receipt of any instruction or direction and shall request that contracting officer to modify the contract accordingly. Upon receiving the notification from the contractor, the contracting officer shall issue an appropriate contract modification or advise the contractor in writing that, in the contracting officer's opinion, the technical direction is within the scope of this article and does not constitute a change under the "Changes" clause.

(g) Any unauthorized commitment or direction issued by the project officer may result in an unnecessary delay in the contractor's performance and may even result in the contractor expending funds for unallowable costs under the contract.

(h) A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect to the instruction or direction is subject to 52.233-1 - Disputes.

(i) In addition to providing technical direction as defined in paragraph (b) of the section, the project officer shall:

(1) Monitor the contractor's technical progress, including surveillance and assessment of performance, and recommend to the contracting officer changes in requirements.

(2) Assist the contractor in the resolution of technical problems encountered during performance.

(3) Review all costs requested for reimbursement by the contractor and submit to the contracting officer recommendations for approval, disapproval, or suspension of payment for supplies and services required under this contract.

(End of Clause)

SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

Attachments:

1. Monthly Letter Status Report Template
2. Billing Instructions for Cost-Reimbursement Type Contracts