

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES
1 13

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

BPA NO.

1. DATE OF ORDER 2/28/2013		2. CONTRACT NO. (if any) NRC-HQ-12-C-02-0107		6. SHIP TO:	
3. ORDER NO. NRC-T004		4. REQUISITION/REFERENCE 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: P. Merriweather Mail Stop: TWB-01-B10W Washington, DC 20555				b. STREET ADDRESS	
7. TO:				c. CITY Washington	
a. NAME OF CONTRACTOR NUMARK ASSOCIATES, INC				d. STATE DC	
b. COMPANY NAME				e. ZIP CODE 20555	
c. STREET ADDRESS 1220 19TH ST NW STE 500				L SHIP VIA	
d. CITY WASHINGTON				B. TYPE OF ORDER	
e. STATE DC				<input type="checkbox"/> a. PURCHASE	
f. ZIP CODE 200362444				<input checked="" type="checkbox"/> b. DELIVERY	
9. ACCOUNTING AND APPROPRIATION DATA 2013-25-17-4-107 Q4012 252A 31X0200 FFS:131045 DUNS 788247377 Obligated Amount: \$5000.00				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.	
10. REQUISITIONING OFFICE NRO				Except for billing instructions on the reverse, the delivery order is subject to instructions contained on the side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
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 N/A	
13. PLACE OF		14. GOVERNMENT BAL. NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 9/30/2014	
a. INSPECTION See Block 6		b. ACCEPTANCE See Block 6		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)
	<p>The Contractor shall provide services in accordance with the attached SOW titled "Review of Boll Bend SCOLA PSAR Section 3.7"</p> <p>COR: Christine 301-415-2713 Christine.Briggs@nrc.gov PM: Marty Bowling 301.466.2700 mbowling@numarkassoc.com <i>202</i></p> <p>Total Order ceiling: \$386,810.00 Total Obligated Amount: \$5,000.00 Estimated Reimbursable Cost: \$362,388.00 Fee: \$24,422.00 Period of Performance: 3/01/2013-9/30/2015</p> <p>Pearlette Merriweather is the Contracting Officer for this Task Order.</p> <p>See continuation pages.</p>				See CONTINUATION Page	

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
SEE BILLING INSTRUCTIONS ON REVERSE	a. NAME Department of Interior / NBC NRCPayments@nbc.gov		PHONE:		17(i) GRAND TOTAL	
	b. STREET ADDRESS (or P.O. Box) Attn: Fiscal Services Branch - D2770 7301 W. Mansfield Avenue		FAX:			
	c. CITY Denver	d. STATE CO	e. ZIP CODE 80235-2230			\$386,810.00

22. UNITED STATES OF AMERICA BY (Signature) 		23. NAME (Typed) Sheila Bumpass Contracting Officer TITLE: CONTRACTING/ORDERING OFFICER	
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PRESCRIBED BY GSA/FAR 48 CFR 63.213(f)

SUNSI REVIEW COMPLETE

MAR 05 2013

ADM002

TEMPLATE - ADM001

NRC-HQ-12-C-42-0107 NRC-T004

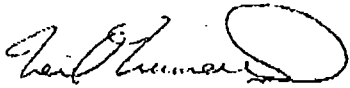
In accordance with Contract No. NRC-HQ-12-C-42-0107, this definitizes Task Order No. 4. The effort shall be performed in accordance with the attached Statement of Work.

Task Order No. 4 shall be in effect thirty one months from date of award, with a cost ceiling of \$386,810.00. The amount of \$362,388.00 represents the estimated reimbursable costs, and the amount of \$24,422.00 represents the fixed fee.

The amount obligated by the Government with respect to this task order is \$5,000.00.

Acceptance of Task Order No. 4 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 of your records.

ACCEPTANCE:



NAME

President

TITLE

3/1/13

DATE

SCHEDULE - SUPPLIES OR SERVICES

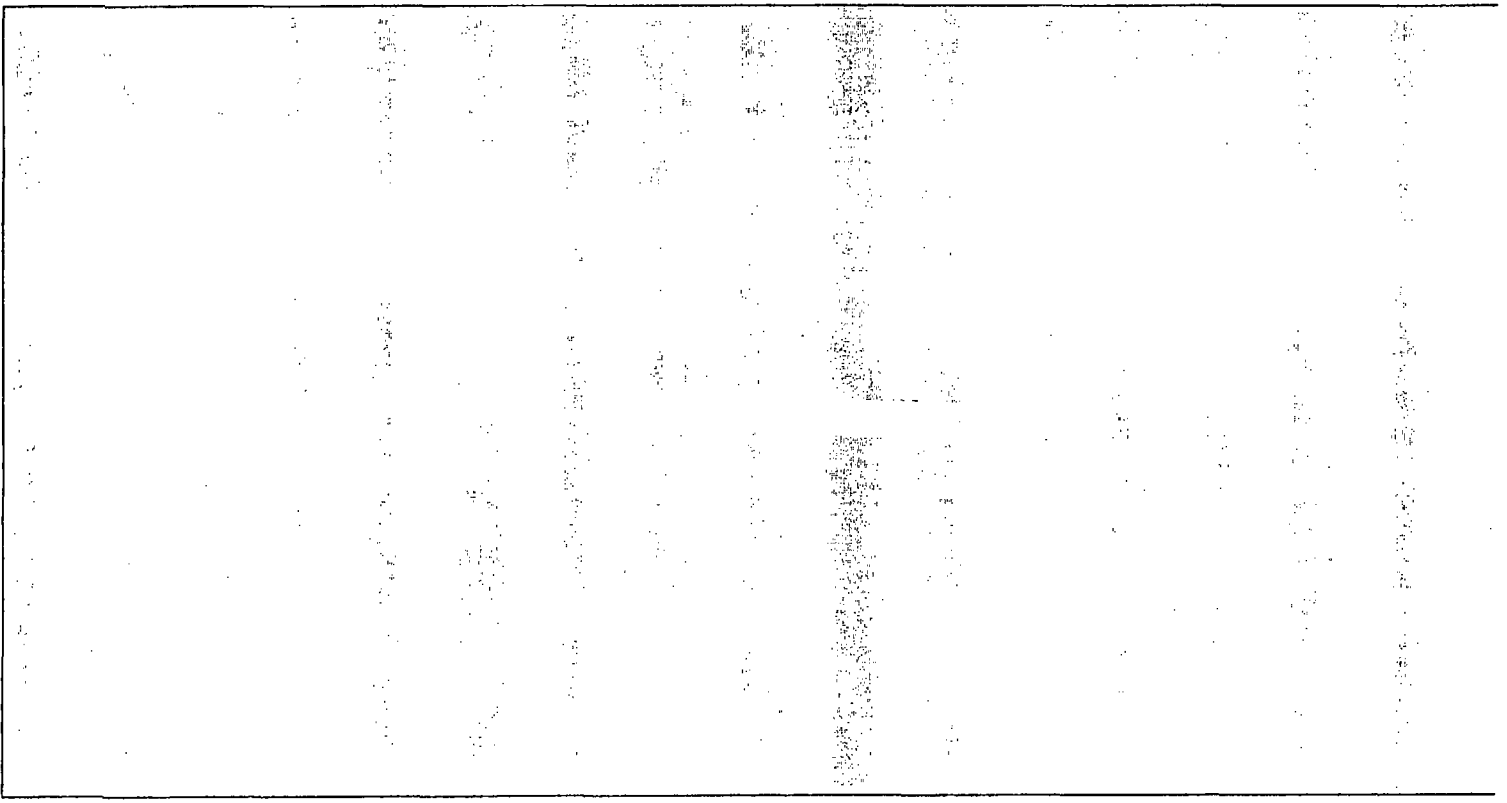
The period of performance of this task order is 3/1/2013 – 9/30/2015.

Labor Rates for Period of Performance: 3/1/2013 – 9/30/2013		
Labor Category	Unburden Labor rate	Burden*
Project Manager		
Administrative Staff		
Senior Technical Reviewer		
Senior Technical Reviewer (Associate)		
Subject Matter Expert	\$	

Labor Rates for Period of Performance: 10/1/2014 – 9/30/2014		
Labor Category	Unburden Labor rate	Burden*
Project Manager	\$	
Administrative Staff- Technical Editor		
Administrative Staff		
Administrative Staff		
Senior Technical Reviewer		
Senior Technical Reviewer (Associate)		
Subject Matter Expert		

Labor Rates for Period of Performance: 10/1/2014 – 9/30/2015		
Labor Category	Unburden Labor rate	Burden*
Project Manager		
Administrative Staff- Technical Editor		
Administrative Staff		
Administrative Staff		
Senior Technical Reviewer		
Senior Technical Reviewer (Associate)		
Subject Matter Expert		

*Associate rates are not calculated with overhead or fringe



TASK ORDER STATEMENT OF WORK

JCN Q-4012	Contractor NJ Numark & Associates	Task Order No. 4
Applicant PPL Bell Bend LLC	Design/Site US EPR / Bell Bend	Docket No. 05200039
Title/Description Review of Bell Bend S-COLA FSAR Section 3.7		
TAC No. RX0379	B&R Number 2013-25-17-4-107	SRP or ESRP Section(s) 3.7.1, 3.7.2, and 3.7.3
NRC Contracting Officer Representative (Administrative)		
Christine Briggs	301-415-2713	Christine.Briggs@nrc.gov
NRC Contracting Officer Representative (Technical)		
Sunwoo Park	301-415-2690	Sunwoo.Park@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), "Licenses, Certifications, and Approvals 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 in Final Safety Analysis Report."

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 (ESRP) (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 site 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).

As part of Task Order 54 under Contract No. NRC-42-07-481, the contractor provided technical assistance related to the review of FSAR Section 3.7 of Bell Bend S-COLA. A limited scope of work, including development of an initial set of requests for additional information (RAIs), has been completed to date due to schedule postponement in licensing activities of this COL application. A revised FSAR that incorporates major changes to design parameters associated with power-block relocation will be submitted to the NRC by the applicant and that will require significant additional contract work. The contractor will continue to provide technical assistance to the NRC under this new contract.

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 COL application meets appropriate regulatory requirements relating to FSAR

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Sections 3.7.1, 3.7.2, and 3.7.3 and any references to or departures from the corresponding EPR Certified Design sections. The level of effort for this task order is based on the expectation that the contractor is familiar with the review procedures of the SRP Sections in the work scope and the technical reviewer has the required knowledge and experience in the subject matter.

The primary deliverable, or output of this regulatory review, shall be the TER. The TER will serve as input to the NRC's safety evaluation report (SER) which will document the NRC's technical, safety, and legal basis for approving the subject FSAR Sections. The TER documents the contractor's technical evaluation of a proposed design against relevant regulatory criteria. The technical evaluation should include a description of the proposed design and an analysis of the proposal in terms of regulatory requirements, established NRC positions (e.g., SRP or regulatory guides), industry standards, or other relevant criteria. The contractor should explain the methods used in its review of the design (e.g., a comparison of applicant's proposal against regulatory criteria, a review of input assumptions combined with use of approved methodology, or an independent calculation to confirm results presented by an applicant). The technical evaluation should be specific as to what information is relied on to form the basis for approving or denying the proposed design. The technical evaluation should also contain the contractor's specific conclusion that the proposed design is technically acceptable and meets regulatory requirements or other industry standards or reasons why the proposed design is unacceptable. The TER, and ultimately the SER, should be written in a manner whereby a person with a technical (non-nuclear) background and unfamiliar with the applicant's request could understand the basis for the staff's conclusions. The TER format is described in Attachment 1 to this Task Order Statement of Work (SOW).

3.0 WORK REQUIREMENTS, SCHEDULE AND DELIVERABLES

Tasks/Standards	Scheduled Completion	Deliverables
3. REQUIREMENT: Using NRC acceptance criteria documented in the Standard Review Plan (SRP Sections 3.7.1 through 3.7.3) and Regulatory Guides (e.g., 1.60, 1.61, 1.92, 1.122, 1.132, 1.138, 1.142, etc) as guidelines, review the COL application sections 3.7.1, 3.7.2, and 3.7.3 and related documents to determine if the methods proposed by the applicant meet the applicable regulatory requirements and conforms to established staff 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	TBD based on project schedule.	TER and RAI's if applicable.

Tasks/Standards	Scheduled Completion	Deliverables
<p>for Additional Information (RAI).</p> <ul style="list-style-type: none"> • Review response to pertinent 'COL Action Items' (identified in the SER for EPR certified design). • 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 and (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). • Identify issues and the need for any additional or clarifying information and document as formal Requests for Additional Information (RAIs). • Perform all interface reviews as identified in review guidance • Prepare a draft technical evaluation report (TER) including a preliminary draft SER write-up in format per Attachment 1 or directed by TM. <p>• STANDARD: Complete Draft TER and develop RAIs</p>		
<p>4. REQUIREMENT: Review responses to the RAIs questions to determine if they adequately resolve the outstanding issues. Identify any other open items. Incorporate the review results in the draft TER completed under Task 3.</p> <p>STANDARD: Revise TER with open items</p>	<p>TBD based on project schedule.</p>	<p>Revised TER with open items.</p>

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"> a. Audit the analysis reports and design calculations as described in the SCOL application. 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. 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 TER with open items for input to SER with Open items. <p>STANDARD: Update TER. Submit Trip Report within 2 weeks of site review.</p>	<p>TBD based on project schedule.</p>	<p>Trip Report and updated TER with open items</p>
<p>6. REQUIREMENT: Review the applicant's response to the open items identified as a result of the audit (Task 5). Identify any unresolved issues and prepare a TER with no open items for input to a safety evaluation report. Incorporate NRC's comments and prepare Final TER.</p> <p>STANDARD: Complete TER that follows the NRC-provided template without deviation.</p>	<p>TBD based on project schedule.</p>	<p>SER input with open items resolved.</p>
<p>7. REQUIREMENT: As needed and requested by the staff, provide technical hearing support to the staff during related ACRS meetings and/or ASLB proceedings.</p> <p>STANDARD: Ensure presentation materials are reviewed and approved by NRC staff.</p>	<p>TBD based on project schedule.</p>	<p>Prepare presentation materials. Attend meetings, as requested.</p>

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The COR-technical 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 Contracting Officer (CO) and will be coordinated with the NRO COR.

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 structural engineers with knowledge and experience in vibration analyses, development of seismic ground motion spectra and consistent time histories, soils-structure interaction analyses, development of in-structure floor response spectra, linear and non-linear dynamic and seismic analysis of systems, structures and components of nuclear power plants using sophisticated computer codes.

The contractor shall provide a contractor project manager (PM) to oversee the effort and 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 COR'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 CORs and CO.

Please refer to Section F of the basic contract award document for other contract reporting requirements

Technical reporting requirements

Unless otherwise specified above, the contractor shall provide all deliverables as draft products. The NRC COR 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 COR, and then deliver the final version of the deliverable. When mutually agreed upon between the contractor and the COR, 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 (upon request) and electronic formats. The electronic format shall be provided in MS Word or other word processing software approved by the COR. For each deliverable, the contractor shall provide one hard copy (upon request) and electronic copy to both the CORs and the CO. 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), if applicable, RX0379 Task Order No.: 4; the licensee: PPL Bell Bend LLC; and, the site: Bell Bend.

1. At the completion of Task 3, submit a 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** in the base contract SOW for the guidelines for developing RAIs.
2. At the completion of Task 4, submit a TER (**see Attachment 1**) that contains a summary of the review results and the updated report completed under Task 3 incorporating the findings from the resolution of the RAIs. Include 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. Incorporate the findings in the report developed under Task 3.
4. At the completion of Task 6, submit a TER (**see Attachment 1**) that contains an SER with open items resulting from the work performed in Task 4 & 5, and update of the TER developed under Task 5.

6.0 MEETINGS AND TRAVEL

The following travel assumptions should be considered in planning the work effort. Travel in excess of the total number of person-trips must be approved by the CO; travel within the work scope limits must be approved by the COR.

- Two, two-person, five-day trips to the applicant's facility to implement a COL review team audit (Task 5)
- Two, two-person, one-day trips to NRC headquarters for an ACRS meeting and a plant site hearing (Task 7)
- Two, two-person, one-day trips to NRC headquarters to attend meetings or participate in technical sessions

7.0 NRC FURNISHED MATERIAL

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

- a. CD-ROM containing S-COL Sections and the relevant Appendices from the S-COL application.
- b. CD-ROM containing the Final Safety Analysis Report (EPR FSAR) of the DCD including Sections 3.7.1 through 3.7.3, and the associated Appendices.

8.0 LEVEL OF EFFORT

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

Task(s)	Labor Category	Level of Effort FY-13 (hours)	Level of Effort FY-14 (hours)	Level of Effort FY-15 (hours)
Tasks 3 - 7	Subject Matter Expert	35	207	64
Tasks 3 - 7	Senior Technical Reviewer	115	483	256
Tasks 3 - 7	Technical Reviewer	0	0	0
Tasks 3 - 7	Project Manager	15	30	15
Tasks 3 - 7	Admin Support	10	60	26
Total		175	780	361

9.0 PERIOD OF PERFORMANCE

The period of performance is March 1, 2013 to September 30, 2015.

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. Expected Classification or Sensitivity

All work under this project is expected to be unclassified and not sensitive.

c. 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 50 RAIs each of which will be taking on average three hours to review and that it will take five days to update the draft TER developed in Task 3 reflecting the staff evaluation of the RAI responses.

The level of effort for Task 5 is based on two, two-person, five-day trips plus three days to write the trip reports.

The level of effort for Task 6 is based on the need to resolve 20 open items and each of which will be taking on average ten hours to reach a resolution, and to prepare final TER reflecting comments from the NRC staff.

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

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

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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 Evaluation Report (TER). The TER will serve as input to the NRC staff's SER which will document the NRC's technical, safety, and legal basis for approving the COL application. The TER must provide sufficient information to adequately explain the NRC staff's rationale for why there is *reasonable assurance* that public health and safety is protected. The TER, and ultimately the SER, should be written in a manner whereby a person with a technical (non-nuclear) background and unfamiliar with the applicant's request could understand the basis for the staff's conclusions. The TER format is described in Attachment 1 to this Task Order Statement of Work.

Attachments:

1. Outline, Format, and Content for the TER (draft SER 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 requests 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