AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

BPA NO.	1. CONTRACT ID CODE	PAGE	OF
		1	2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
0013	See block 16c.	NRO-11-021 & 079 Dated 11/10/2010	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE
U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Morie Gunter-Henderson 301-492-3646 Mail Stop: TWB-01-B10M Washington, DC 20555	3100	U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop: TWB-01-B10M Washington, DC 20555	3100

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO.
N J NUMARK ASSOCIATES INC NUMARK ASSOCIATES 1220 19TH ST NW STE 500 WASHINGTON DC 200362444		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO. NRC-42-07-481 0003 Modification No. 13
CODE 788247377 FACILITY CODE	X	10B. DATED (SEE ITEM 13) 01-02-2008

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)

B&R:2011-25-17-4-11B JC:Q4159 BOC:252A APPN:31X0200
NRO-11-079 FSS#110975 and NRO-11-021 FSS#110514
Obligates: $23,000.00 NAICS Code: 541990

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:
X	D. OTHER (Specify type of modification and authority) Mutual Agreement Between the Parties.

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.)

The purpose of this modification is to increase the level of effort; add funds in the amount of $23,000.00 and extend the period of performance to 09/01/2011.

Task Order Ceiling Amount: $1,119,862.00 (changed)
Total Obligated Amount: $1,044,894.00 (changed)
Period of Performance: 01/02/2008 - 09/01/2011 (changed)

See page two for details.

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.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Neil J. Numark President	FOR Morie Gunter-Henderson DONALD A. KING Contracting Officer
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED 3/3/11
16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 3/9/2011

NSN 7540-01-152-8070
PREVIOUS EDITION NOT USABLE

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA - FAR (48 CFR) 53.243

MAR 9 2011

SUNSI REVIEW COMPLETE

TEMPLATE - ADM001

ADM00

The purpose of this modification is to (1) incorporate the revised SOW reflecting the additional level of effort; (2) increase the task order ceiling by the amount of $97,968.00; add funds in the amount of $23,000.00 to the task order; and extend the period of performance to 09/01/2011. Accordingly, the subject task order is hereby modified as follows:

Paragraphs 2 and 3, page 2 of 2 under the base task order 003, is hereby deleted in its entirety and replaced with the following:

Task Order No. 3 shall be in effect from 01/02/2008 through 09/01/2011, with a cost ceiling of $1,119,862.00. The amount of $1,071,587.00 represents the estimated reimbursable costs, and the amount of $48,275.00 represents the fixed fee.

"The amount obligated by the Government in respect to this task order is $1,044,894.00 of which $999,851.00 represents the estimated reimbursable costs, and the amount of $45,043.00 represents the fixed fee."

A summary of obligations for this task order, from award date through the date of this action is given below:

TOTAL FY08 OBLIGATIONS:	$588,587.00
TOTAL FY09 OBLIGATIONS:	$190,000.00
TOTAL FY10 OBLIGATIONS:	$230,000.00
TOTAL FY11 OBLIGATIONS:	$36,307.00
	$1,044,894.00

ALL OTHER TERMS AND CONDITIONS OF THE SUBJECT TASK ORDER REMAIN UCHANGED.

MODIFICATION 13

TASK ORDER STATEMENT OF WORK

JCN/Contract No.	Contractor	Task Order No.
Q-4159	Numark	003 (Modification #13)
Applicant	Design/Site	Docket No.
AREVA	EPR	05200020
Title/Description		
Review of Containment and Ventilation (SPCV) Systems (CTH) for the EPR DCD Application		
TAC No.	B&R Number	SRP Section(s)
RX0142	2011-25-17-4-118	Containment and Ventilation Sections (see Section 2)
NRC Task Order Project Officer (PO)		
Meghan Blair	(301) 415-5242	Meghan.Blair@nrc.gov
NRC Technical Monitor (TM)		
Shie-Jeng Peng	(301) 415-8475	Shie-Jeng.Peng@nrc.gov

1.0 BACKGROUND

Combined Operating License (COL) Applications are submitted pursuant to Section 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."

Standard Design Certification (DCD) Applications are submitted pursuant to Section 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 DCD Applications based on information furnished by applicants pursuant to 10 CFR 52.47, "Contents of Applications, Technical Information."

In particular, the application shall include: a final safety analysis report (FSAR) describing the facility; compliance with the principal design criteria for the facility, as described in 10 CFR 50, Appendix A, general design criteria (GDC); and an evaluation of the standard plant design against the Standard Review Plan (SRP).

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).

Design Certification Process

The NRC may approve and certify a standard nuclear plant design through a rulemaking, independent of a specific site. An application for a standard design certification must contain proposed inspections, tests, analyses, and acceptance criteria (ITAAC) for the standard design. Additionally, the application must demonstrate how the applicant complies with the Commission's relevant regulations.

An application must contain a level of design information sufficient to enable the Commission to reach a final conclusion on all safety questions associated with the design. In general terms, a design certification application should provide an essentially complete nuclear plant design, with the exception of site-specific design features such as intake structures and the ultimate heat sink.

The application presents the design basis, the limits on operation, and a safety analysis of structures, systems, and components of the facility as a whole. The scope and contents of the application are equivalent to the level of detail found in a Final Safety Analysis Report for a currently operating plant. The NRC staff prepares a Safety Evaluation Report that describes its review of the plant design and how the design meets applicable regulations.

The ACRS reviews each application for a standard design certification, together with the NRC staff's safety evaluation report, in a public meeting. Upon determining that the application meets the relevant standards and requirements of the Atomic Energy Act and the Commission's regulations, the Commission drafts a rule to issue the standard design certification as an appendix to the 10 CFR Part 52 regulations.

An application for a combined license under 10 CFR Part 52 can incorporate by reference a design certification and/or an early site permit. The advantage of this approach is that the issues resolved during the design certification rulemaking and the early site permit hearing processes are precluded from reconsideration later at the combined license stage.

2.0 OBJECTIVE

The objective of this task order is to obtain technical expertise from the contractor to assist the staff in determining the adequacy of the DCD application relating to the EPR design.

If directed by the NRC, the initial task will be to perform an Acceptance Review of the Standard Design Application (DCD) to determine the completeness and technical sufficiency of the combined license application. This includes identifying major deficiencies in the application that might impact the review process or affect the planned resources and schedule. This review will be conducted in accordance with Office Instruction NRO-REG-100, "Acceptance Review Process for Design Certification and Combined License Applications", [ML071980027], sections 3.2.1, 3.2.3, and Attachment C. This acceptance review will be documented in the table, columns 1-6, 10 and 11, provided in attachment 2 to this Task Order Statement of Work (SOW).

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 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 shall be prepared using the NRC provided SER Template. A sample of the TER format is provided in Attachment 1 to this SOW.

The contractor will review the EPR DCD for the Containment and Ventilation Branch 1 (SPCV) under its purview. The contractor has primary review responsibilities for the following SRP sections:

6.2.1 Containment Functional Design
6.2.1.2 Subcompartment Analysis
6.2.1.3 Mass and Energy Release Analysis for Postulated Loss-of-Coolant Accidents (LOCAs)
6.2.1.4 Mass and Energy Release Analysis for Postulated Secondary System Pipe Ruptures
6.2.1.5 Minimum Containment Pressure Analysis for Emergency Core Cooling System Performance Capability Studies
6.2.2 Containment Heat Removal Systems

6.2.3 Secondary Containment Functional Design
6.5.1 ESF Atmosphere Cleanup System
6.5.2 Containment Spray as a Fission Product Cleanup System
6.5.3 Fission Product Control systems and Structures
14.3.11 Containment Systems and Severe Accidents – Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)

In addition, the contractor will review applicable Containment and Ventilation Branch generic issues including NRC Bulletins and Generic Letters, TMI action Items, Task Action Plan, and New Generic Issues. For passive plants, the contractor will review the applicable Containment and Ventilation Branch Regulatory Treatment of Non-Safety systems (RTNSS).

3.0 WORK REQUIREMENTS, SCHEDULE AND DELIVERABLES

Tasks/Standards	Scheduled Completion	Deliverables
1. REQUIREMENT: Become familiar with SRP Sections 6.2.1, 6.2.1.2, 6.2.1.3, 6.2.1.4, 6.2.1.5, 6.2.2, 6.2.3, 6.5.1, 6.5.3, 6.5.2, and 14.3.11. STANDARD: Written confirmation that familiarization is complete. The level of effort for Task 1 is based on the volume of materials to be reviewed; this task is for familiarity and not for evaluation.	* 10 days after authorization of work	Documentation that assigned personnel have reviewed references.
2. REQUIREMENT: Participate in an orientation/kick-off meeting with the NRC staff to discuss the scope of the work, expectations and task order management. STANDARD: Attendance by individuals designated by NRC.	* 10 days after authorization of work	N/A
3. REQUIREMENT: Acceptance review. Support staff's acceptance review to determine the completeness and technical sufficiency of a combined license application. This includes identifying major deficiencies in the application that might impact the review process or affect the planned resources and schedule. STANDARD: Written documentation that review is complete.	* 15 days after receipt of application	Acceptance review results documented in Attachment 2

Tasks/Standards	Scheduled Completion	Deliverables
4. REQUIREMENT: Review the DCD application Sections 6.2.1, 6.2.1.2, 6.2.1.3, 6.2.1.4, 6.2.1.5, 6.2.2, 6.2.3, 6.5.1, 6.5.3, 6.5.2, and 14.3.11 to determine the adequacy of the containment design described in those sections. Determine if the methods and approach proposed by the applicant meet the appropriate review guidance. Identify issues and those aspects of the application that need additional or clarifying information, RAIs. Prepare a Technical Evaluation Report (TER). STANDARD: Completed TER that follows the NRC provided template without deviation. No deviation from the guidance defined in Section III, RAI Guidance of Attachment 1 to the basic contract SOW. One round of comment incorporation is acceptable.	* 70 days after authorization to proceed with Task 4	TER, and RAIs if applicable
5. REQUIREMENT: Review responses to the RAI questions including Topical Reports to determine if they adequately resolve the outstanding issues. Identify any other open items. Prepare a TER providing the input to the SER with open items (SER/OI). STANDARD: Complete TER with open items	* 30 days after receipt of the responses.	Revised TER with open items
6. REQUIREMENT: Review the applicant's response to the open items identified in the SER/OI. Identify any unresolved issues. Prepare a TER providing the input to the final SER describing the resolution to the open items. STANDARD: Complete TER that follows the NRC provided template without deviation.	*45 days after receipt of responses to OIs	SER input with open items resolved
7. REQUIREMENT: Prepare final supplement with no open items. STANDARD: Supplement reviewed and approved by NRC staff.	10 days following ACRS review of supplement	Final supplement.
8a. REQUIREMENT: *(If applicable)* Prepare for and travel to the applicant's office and participate in an NRC review team to: a) Audit the TBD as described in the DCD for EPR Standard design. 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. STANDARD: Complete evaluation as defined in task. Submit Trip Report within 2 weeks of site review.	*2 weeks after the trip	Trip Report

Tasks/Standards	Scheduled Completion	Deliverables
8b. 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 requested.
8c. REQUIREMENT: As needed and requested by the staff, provide technical support to the staff during related MDEP meetings	TBD	None
8d. REQUIREMENT: As needed and requested by the staff, attend meetings with applicant to evaluate and discuss previously unresolved issues.	TBD	None
9. REQUIREMENT: Evaluate existing multi-node analyses of containment test facilities (for example, OECD/NEA International Standard Problem ISP-47) and use insights gained from this research to develop at least 2 noding schemes for the US-EPR. Identify a list of specific information (to be supplied by AREVA) required to generate complete APROS models of proposed nodalizations. STANDARD: Submit report containing proposed nodalizations and list of modeling information needed from AREVA.	* 2 weeks after authorization to begin Task 9	Analysis Report
10. REQUIREMENT: Generate APROS models of noding schemes developed in Task 9 with modeling information provided by AREVA. Perform nodal sensitivity analysis using mass and energy release data supplied by 1. AREVA and 2. the NRC staff. Extend the analyses for 24 hours or until the containment pressure is clearly on a lasting downward trend. Evaluate the effect of heat transfer options for the vertical internal heat structures and for the horizontal heat structures. Perform additional sensitivity analysis as directed by NRC staff. Update model as additional information is provided by AREVA. STANDARD: Submit report describing sensitivity analyses which includes model descriptions and APROS results.	* 7 weeks after receipt of modeling information	Analysis Report

Tasks/Standards	Scheduled Completion	Deliverables
11. REQUIREMENT: Following discussions with the NRC staff, provide recommendations as to the best conservative nodalization for US-EPR safety analysis. Provide tables from the recommended APROS analysis model giving node volume and initial conditions, flow path area, length and flow loss factor. List heat structures by node including thickness, material and heat transfer model used. Update model as additional information is provided by AREVA. STANDARD: Submit report containing detailed information on recommended model including input tables.	* 2 weeks after NRC discussions	Analysis Report

* 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 basic task ordering agreement, 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:

- Mechanical engineers or fluid systems engineer(s) or analysts with extensive experience in reviewing containment heat removal systems, mass and energy release for postulated loss of coolant accidents (LOCAs) and secondary system pipe ruptures and subcompartment analysis.

- Analysts should be familiar with and be able to run GOTHIC and APROS, which are industry codes, and CONTAIN and MELCOR which are NRC codes.

- Mechanical engineers or fluid systems engineer(s) or analysts with extensive experience in reviewing atmospheric cleanup systems and containment spray systems as fission product cleanup systems.

The contractor shall provide a 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 (principal investigators, technical staff, employees, consultants, specialists or subcontractors) 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 task order is subject to the NRC technical monitor's (TM's) approval and the resume for each shall be provided. This includes any proposed changes to key personnel during the life of the task order.

5.0 REPORTING REQUIREMENTS

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 Manager 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-4159; Technical Assignment Control No. (TAC): RX0142; Task Order No.: 3 ; the applicant, AREVA; and the site: N/A.

A. At the completion of Task 4, 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.

B. 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 4 incorporating the findings from the resolution of the RAIs. Include a separate list of the remaining open items and the basis for such determination.

C. At the completion of Task 8a, submit a trip report, as an input to NRC audit report, that contains a summary of documents audited, the audit results of the design reports and design calculations, a summary of meeting discussions 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 4.

D. At the completion of Task 6, submit a TER (see Attachment 1) that contains a safety evaluation report with open items resolved and update of the TER developed under Task 5.

E. At the completion of Tasks 9-11, submit reports as described in Section 3 Tasks 9-11.

6.0 MEETINGS AND TRAVEL

The following travel assumptions should be considered in planning the work effort. It is likely that a smaller group than the entire review team will be necessary to accomplish some activities; the actual travel contingent will be determined by the NRC TM after discussion with the contractor PM. Travel in excess of the total number of person-trips must be approved by the NRC TAPM; travel within the work scope limits will be approved by the NRC TM.

- One, 3-person, 2-day working meeting to kickoff project and contractor orientation (Task 2)
- *(If required)* one, 2-person, 3-day trip to the applicant's facility (Task 8a)
- One, 2-person, 2-day working meeting at NRC headquarters to review deliverables (task 8b)
- Two, 2-person, 2-day meetings, if needed, for hearing or ACRS meeting. (Task 8b)
- One, 1-person, 4-day meeting in Finland for review of Tasks 9-10 and conference with international regulators (Task 8c)
- Seven, 1-person, 3-day meeting at applicant's facility (Task 8d)

*At the discretion of the NRC TM, progress meetings may be conducted at the contractor's office or 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 Design Certification Document (DCD) application.

b) CD-ROM containing Technical Reports supporting the DCD.

8.0 LEVEL OF EFFORT

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

Task(s)	Labor Category	Level of Effort FY 2008 (hrs)	Level of Effort FY 2009 (hrs)	Level of Effort FY 2010 (hrs)	Level of Effort FY 2011 (hrs)
1	Fluid systems engineers / analysts	264	0	0	0
2	Fluid systems engineers / analysts	132	0	0	390
3	Fluid systems engineers / analysts	264	0	0	0
4	Fluid systems engineers / analysts	1440	0	0	0
5	Fluid systems engineers / analysts	0	400	480	0
6	Fluid systems engineers / analysts	0	0	0	36
7	Fluid systems engineers / analysts	0	0	0	132
8	Fluid systems engineers / analysts	132	242	224	0

9	Fluid systems engineers / Principal analysts	135	0	0	0
10	Fluid systems engineers / Principal analysts	0	680	0	0
11	Fluid systems engineers / Principal analysts	0	136	0	0
1-11	Senior Project Manager	200	100	40	15
1-11	Senior Administrative Assistant	32	42	16	5
Total	DCD: 5537 hours	2599	1600	760	578

9.0 PERIOD OF PERFORMANCE

The projected period of performance is 44 months from authorization of work.

10.0 OTHER APPLICABLE INFORMATION

License Fee Recovery

- All work under this task order is fee-recoverable under 10 CFR Part 170 and shall be charged to the appropriate TAC number(s).

Assumptions and Understandings:

- The level of effort for Tasks 3 and 4 is based on the assumption that the contractor is familiar with the review procedures of the SRP Sections.
- The level of effort for Task 5 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. A ny applicant submittals during this time period will also be reviewed under Task 5.
- 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 for the visit to the applicant's site, if necessary, is based on one, two-person, three-day trip (including travel time) plus four days to prepare for the trip and to write the trip reports.
- The level of effort in Task 8b is based on requiring three, two-day trips to NRC headquarters.
- The level of effort Task 8d is based on seven, one-person, three-day trip (including travel time)
- 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 technical reviewer(s) for both the DCD application and the COLA will be the same for the respective sections.

Attachments: ******REFER TO ORIGINAL RFP FOR ATTACHMENTS******

1. Outline, Format, and sample content for the TER (draft SER) Input. Sample Generic Safety Evaluation Report for ABWR COL, chapter 6

2: Acceptance Criteria Checklist. From NRO Office Instruction, NRO-REG-100, "Acceptance Review Process for Design Certification and Combined License Applications", [ML071980027], Attachment C, Table 1