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|--|---|------------------------------------|--|--|------------------------|
| INTERAGENCY AGREEMENT | | 1. I.A. NO. NRC-HQ-25-15-T-0005 | | PAGE OF 1 2 | |
| 2. ORDER NO. | | 3. REQUISITION NO. NRO-15-0066 | | 4. SOLICITATION NO. | |
| 5. EFFECTIVE DATE 05/20/2015 | | 6. AWARD DATE 05/20/2015 | | 7. PERIOD OF PERFORMANCE 05/20/2015 TO 01/31/2019 | |
| 8. SERVING AGENCY BROOKHAVEN NATIONAL LABORATORY A.L.C: DUNS: 027579460 +4: BROOKHAVEN SITE OFFICE PO BOX 5000 BLDG 464 UPTON NY 11973-5000 POC Kim Nekulak TELEPHONE NO. 631-344-7439 | | | 9. DELIVER TO VAUGHN THOMAS US NUCLEAR REGULATORY COMMISSION 11555 ROCKVILLE PIKE MAILSTOP T-8-K9 ROCKVILLE MD 20852 | | |
| 10. REQUESTING AGENCY ACQUISITION MANAGEMENT DIVISION A.L.C: 31000001 DUNS: 040535809 14: US NUCLEAR REGULATORY COMMISSION ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE ROCKVILLE MD 20852-2738 POC Jeffrey Mitchell / Lola Gomez TELEPHONE NO. | | | 11. INVOICE OFFICE US NUCLEAR REGULATORY COMMISSION ONE WHITE FLINT NORTH 11555 ROCKVILLE PIKE MAILSTOP O3-E17A ROCKVILLE MD 20852-2738 | | |
| 12. ISSUING OFFICE US NRC - HQ ACQUISITION MANAGEMENT DIVISION MAIL STOP TWFN-5E03 WASHINGTON DC 20555-0001 | | | 13. LEGISLATIVE AUTHORITY Energy Reorganization Act of 1974 | | |
| | | | 14. PROJECT ID | | |
| | | | 15. PROJECT TITLE APR-1400 DC APPLICATION | | |
| 16. ACCOUNTING DATA 2015-X0200-FEEBASID-25-25D003-17-4-118-3002-251D | | | | | |
| 17. ITEM NO. | 18. SUPPLIES/SERVICES | 19. QUANTITY | 20. UNIT | 21. UNIT PRICE | 22. AMOUNT |
| | TASK ORDERING AGREEMENT: NRC-HQ-25-14-D-0002 TASK ORDER NUMBER: NRC-HQ-25-15-T-0005 Title: Provide Technical Insights to the Staff Review of Structural Review of Category I Structures for the APR-1400 DC Application The NRC and the DOE Lab (BNL) hereby enter into this Agreement/Task Order, NRC-HQ-25-14-D-0002 NRC-HQ-25-15-T-0005, for the project entitled, Provide Technical Insights to the Staff Review of Structural Review of Category I Structures for the APR-1400 DC Application. Continued ... | | | | |
| 23. PAYMENT PROVISIONS | | | 24. TOTAL AMOUNT \$150,000.00 | | |
| 25a. SIGNATURE OF GOVERNMENT REPRESENTATIVE (SERVING) <i>Kim Nekulak</i> | | | 25b. SIGNATURE OF GOVERNMENT REPRESENTATIVE (REQUESTING) <i>Jeffrey R. Mitchell</i> | | |
| 26a. NAME AND TITLE Kim M. Nekulak Contracting Officer | | 26b. DATE MAY 20 2015 | 26c. CONTRACTING OFFICER JEFFREY R. MITCHELL | | 26d. DATE 5/20/2015 |

SUNSI REVIEW COMPLETE

TEMPLATE - ADM001

JUN 15 2015

ADM002

The performance period for this agreement shall commence on May 20, 2015 and will expire on January 31, 2019.

Consideration and Obligations:

(a) Authorized Cost Ceiling \$1,061,295.00.
(b) The amount presently obligated with respect to this DOE Agreement is \$150,000.00. When and if the amount(s) paid and payable to the DOE Laboratory hereunder shall equal the obligated amount, the DOE Laboratory shall not be obligated to continue performance of the work unless and until the NRC Contracting Officer shall increase the amount obligated with respect to this DOE Agreement. Any work undertaken by the DOE Laboratory in excess of the obligated amount specified above is done so at the DOE Laboratory's sole risk.

The following document is hereby made part of this Agreement:

Attachment No. 1: Statement of Work

NRC CONTRACTING OFFICER REPRESENTATIVES (COR):
Vaughn Thomas and Robert Roche
SNL PROJECT MANAGERS: J. Hartman and W. Horak
Master IAA: NRCHQ2514D0002

00001

Authorized Cost Ceiling
Line Item Ceiling \$1,061,295.00
Incrementally Funded Amount: \$150,000.00

1,061,295.00

Period of Performance: 05/15/2015 to 01/31/2019
This agreement is entered into pursuant to the authority of the Energy Reorganization Act of 1974, as amended (42 U.S.C 5801 et seq.). This work will be performed in accordance with the NRC/DOE Memorandum of Understanding dated November 24, 1998. To the best of our knowledge, the work requested will not place the DOE and its contractor in direct competition with the domestic private sector.

Fee Recoverable Work
 Non-fee Recoverable Work

The total amount of award: \$1,061,295.00. The obligation for this award is shown in box 24.

*Per J. Mitchell
REC
06/11/15*

STATEMENT OF WORK

| | | | |
|---|--|---|---|
| NRC Agreement Number NRC-HQ-25-14-D-0002 | NRC Agreement Modification Number | NRC Task Order Number (If Applicable) NRC-HQ-25-15-T-0005 | NRC Task Order Modification Number (If Applicable) |
| Project Title: Provide Technical Insights to the Staff Review of Structural Review of Category I Structures for the APR-1400 DC Application | | | |
| Job Code Number 3002 | B&R Number 17-4-118 | DOE Laboratory Brookhaven National Laboratory | |
| NRC Requisitioning Office: NRO / DE | | | |
| NRC Form 187, Contract Security and Classification Requirements <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> Not Applicable | | <input type="checkbox"/> Involves Proprietary Information <input type="checkbox"/> Involves Sensitive Unclassified | |
| <input type="checkbox"/> Non Fee-Recoverable | | <input checked="" type="checkbox"/> Fee-Recoverable (If checked, complete all applicable sections below) | |
| Docket Number (If Fee-Recoverable/Applicable) 52-00046 | | Inspection Report Number (If Fee Recoverable/Applicable) | |
| Technical Assignment Control Number (If Fee-Recoverable/Applicable) RX0848 | | Technical Assignment Control Number Description (If Fee-Recoverable/Applicable) | |

1.0 BACKGROUND

Early site permits (ESP), standard design certifications (DC) and combined licenses (COL) applications are submitted pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Part 52, Licenses, Certifications, and Approvals for Nuclear Power Plants. The U.S. Nuclear Regulatory Commission (NRC) reviews these requests based on information furnished by ESP, DC and COL applicants pursuant to 10 CFR 52.17, 52.47, and 52.79, respectively.

The NRC staff has prepared NUREG-0800, "Standard Review Plan (SRP) for the Review of Safety Analysis Reports for Nuclear Power Plants," to provide guidance to the staff in performing safety reviews of COL applications and 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. 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 Brookhaven National Laboratory (BNL) to assist the NRC staff in evaluating and resolving complex technical issues related to Sections 3.7, 3.8, 9.1.2, 14.3.2, 19.1.5.1 and 19.2.4 of the APR-1400 application, including any technical reports corresponding to the application. The currently submitted technical reports supporting and are considered part of the aforementioned sections in the application include:

- APR1400-E-S-NR-14001, Seismic Design Bases
- APR1400-E-S-NR-14002, Finite Element Seismic Models for SSI Analyses of the NI Buildings
- APR1400-E-S-NR-14003, SSI Analysis Methodology and Results of NI Buildings
- APR1400-E-S-NR-14004, Evaluation of Effects of HRHF Response Spectra on SSCs
- APR1400-E-S-NR-14005, Evaluation of Structure-Soil-Structure Interaction (SSSI) Effects
- APR1400-E-S-NR-14006, Stability Check for NI Common Basemat
- APR1400-H-N-NR-14012, Mechanical Analysis of New and Spent Fuel Storage Racks

BNL's assistance is required in providing technical insights to facilitate staff's evaluation of (1) the structural design and analysis of the Category I structures and (2) modelling, computer codes, seismic analyses, and calculation of the loads and loading combinations used in the analyses and design of the plant systems, structures, and components (SSCs).

The work will include consultation with the staff on the following:

1. Key aspects of structural and seismic analyses associated with the Category I structures
2. Request for Additional Information (RAIs) and RAI responses.
3. Help identify key technical issues, advise on preparation for presentations to senior management, attend public meetings and meetings with the applicant, and advise or perform confirmatory analyses as requested.
4. Subjects for Audit of Design Reports and supporting calculations.
5. Advise on issue resolutions in draft and final Safety Evaluation Report (SER) sections.
6. Participate in regularly-scheduled conference calls with the staff and/or the applicant to discuss technical issues and convey technical insights.

The primary written deliverable, or output of this consultation, shall be letter reports. The letter reports will be used at the staff's discretion for preparation of RAIs and SER sections, which will document the NRC's technical, safety, and legal basis for the staff's findings on the application. The letter reports must provide sufficient information that adequately explains their expert opinions including technical rationale for the complex issues raised and their adverse impact on

public health and safety if not addressed appropriately. In such cases, provide the basis and all sources of information relied on in reaching the determination of reasonable assurance. The letter report 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 specific work scope and schedule required for this task order are provided in Sections 1, 2, 3, and 4. The requirements for communicating work progress and status are provided in Section 9.

3.0 SCOPE OF WORK

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

BNL will advise the staff on the following:

- Key technical issues related to the structural and seismic review of the application sections listed in Section 2.0 of the SOW, including the supporting technical reports referenced in these application sections and listed above.
- RAIs and corresponding application responses and provide RAI recommendations and assessment of KHNP's responses to RAIs.
- Interactions with the applicant on key technical issues.
- Confirmatory analyses conducted by the staff
- Audit plans including the issues to be discussed during an audit, participate in the NRC review team audit, and provide input to the audit report.
- Draft and final SER sections for the application sections listed in Section 2.0 of this SOW.

4.0 SPECIFIC TASKS

BNL must perform the following tasks:

Task 1: Gain Familiarity with the Work Scope as the subject expert through interactions with reviewers

- Gain knowledge of the application sections identified under Section 2 above and related technical reports.
- Participate in an orientation/kick-off meeting/conference call with the NRC staff to discuss the scope of the work, expectations, schedule, and task order management.

Task 2: Advising on key Structural and Seismic Review Activities

- The application sections and associated technical reports listed above. The level of consulting should be sufficient to enable the staff to complete and adequately document its safety review findings.
- Key structural and seismic analysis and design aspects of seismic Category I structures in the application. Provide technical insights to complete and document

the review. Technical input may be conveyed to the staff in weekly conference calls, as needed, as well as through letter reports. The calls will also include review progress and issue resolution.

- Provide expert advice to the staff in the following areas:
 - i. Extent to which the analysis and design approaches are in accordance with the applicable SRP sections and regulatory guides or represent acceptable alternative to the guidance;
 - ii. Extent to which the methods and approaches proposed by the applicant meet the appropriate acceptance criteria;
 - iii. Extent to which the applicant's evaluations demonstrate the adequacy of the structural members for the demands identified in the application.
- Provide expert recommendations to the staff regarding any issues and aspects of the application that need additional or clarifying information.
- Participate in conference calls and meeting with the applicant (if requested by the staff) to discuss any issues or the information to be provided or clarified by the applicant.

Task 3: Advice on staff preparation for RAIs and review of RAI Responses

- Provide expert advice to the staff to ensure the scope of the staff's RAIs is sufficient to cover the information needed to augment and clarify the application content.
- Provide advice on input to address complex technical issues in RAIs to enhance their technical completeness and clarity.

Task 4: Participate in Audits

- Provide advice on important technical issues bearing on safety to be included in staff's development of the audit plan including a recommended list of documents to be audited and issues to be discussed during an audit. Prepare for and travel to the applicant's designated facilities and participate in an NRC review team audit to accomplish the items listed below. Four such audits are anticipated and assumed as part of this contract.
- Activities to be accomplished during an audit may include the following:
 - (a) Provide expert insights on key supporting analysis and design documents that form the basis for the applicant's determination of the adequacy of the structural demands
 - (b) Audit design reports and supporting design calculations as described in the applicant's submittal
 - (c) Evaluate and discuss the applicant's responses to unresolved issues to determine if the outstanding issues are adequately resolved
 - (d) As needed, provide expert review of staff new or supplemental RAIs, based on information reviewed and discussions during the audit.
 - (e) Provide input to staff audit summary as directed by the staff.

Task 5: Consultation of Open Items

- As requested by the staff, provide expert insights with safety articulations to the staff review of the applicant's response to the open items identified as a result of the staff's review and the design audit (Tasks 2 & 4).
- Provide recommendations regarding any unresolved technical issues and specific actions needed to resolve those open items.

Task 6: Participate in the ACRS Meeting as Requested

- As needed and requested by the staff, provide expert support to the staff during Phase 2 related Advisory Committee on Reactor Safety (ACRS) meeting. Assist the staff in responding to ACRS questions, if any. Two such meeting is anticipated.
- Review and provide input to staff presentation materials, as directed by the staff.

Task 7: Review of Staff's Draft Safety Evaluation Reports

- Provide expert review and provide input to address highly complex technical issues in the staff's preliminary safety evaluation report (PSER) during the review Phase 1
- Provide expert review and provide input to address highly complex technical issues in the staff's draft safety evaluation report with open items during the review Phase 2.
- As needed, provide expert review of the staff's assessment of Phase 2 unresolved technical issues and open items identified during the ACRS meeting (Task 6) and assist the staff in developing and communicating a resolution path.
- As directed by the staff, provide technical insights to the staff review and evaluation of the applicant responses to the open items for closure.
- Provide expert review and provide input to address highly complex technical issues in the staff's draft Advanced SER (i.e. safety evaluation without open items).

Task 8: Participate in the ACRS Meeting as Requested

- As needed and requested by the staff, provide technical support to the staff during Phase 5 related ACRS meeting. Two such meetings are anticipated
- Provide expert review and provide input to address highly complex technical issues in staff presentation materials, as needed.

Task 9: Phase 6 Final SER

- Review and provide input to address highly complex technical issues in the staff's Final SER, following recommendations (if any) from ACRS, as requested by the staff.

Task 10: Confirmatory Analyses

- As needed and requested by the staff, provide technical insights to the staff confirmatory analysis related to Section 3.7 of the KHNP application.

Task 11: Provide Monthly Letter Status Reports (MLSRs) per Section 9.0 of this SOW

5.0 DELIVERABLES AND/OR MILESTONES SCHEDULE

| Task Number | Deliverables/Milestone Description | Due Date |
|---|---|---|
| 1 Gain Familiarity with the Work Scope | A jointly agreed upon schedule and deliverables | *2 weeks after authorization of work and as requested by the COR. |
| 2 Advising on key Structural and Seismic Review Activities | Identify areas needing additional information as input for developing RAIs; participate in meetings and conference calls as requested by the COR and provide feedback regarding technical issues in the application. Deliverables are verbal insights and written letter reports. | *November 2015 |
| 3 Advise on staff preparation for RAIs and review of RAI Responses | Provide feedback on the staff's technical evaluation of the applicant's responses to the RAIs. Provide recommendations and input for additional and follow-up RAIs, as needed. | **November 2015 |
| 4 Participate in Audits | Review the staff's audit plan and provide recommendations of potential review items for the audit. Arrange travel plans and participate in the audit as requested by the COR. Provide input to audit summary. | *Trip report along with input to the audit summary, is due two weeks after the audit. (January 2016 & May 2016) |
| 5 Provide technical support to the staff Review of applicant response to Open Items (OIs) | Resolution of open items identified as a result of the review and the audit(s) (Tasks 2 & 5) and specific actions needed to revolve those open items. | June 2016 |

| Task Number | Deliverables/Milestone Description | Due Date |
|--|--|--|
| 6 Phase 3 - Participate in the ACRS Meeting as Requested by the COR | Review staff presentation material and attend the meeting as requested by the COR | Subcommittee – Dec 2016 to Jan 2017 Full Committee – Jan 2017 to Feb 2017; schedule subject to change |
| 7 Review of Staff's Draft Safety Evaluation Reports | Provide expert review input to the staff's preliminary and draft SER with open items and the Advanced SER. As needed, review the Phase 2 unresolved technical issues and open items identified during the ACRS meeting; and review the applicant's response to the open items. | TBD, but not to exceed May 2017 |
| 8 Phase 5 - Participate in the ACRS Meeting as Requested | Review staff presentation material and attend the meeting as requested by the COR | Subcommittee – Jan 2018 to Feb 2018 Full Committee – Feb 2018 to March 2018; schedule subject to change |
| 9 Phase 6 Final SER | Review and provide input to the staff's Final SER | May 2018 |
| 10 Confirmatory Analyses | As needed, provide technical support to staff confirmatory analyses | TBD, but not to exceed June 2016 |
| 11 Provide Monthly Letter Status Reports (MLSRs) per Section 9.0 of this SOW | MLSRs per Section 9.0 of this SOW | Per Section 9.0 of this SOW |

* The work schedules are subject to change by the NRC Contracting Officer Representative (COR) to support the needs of the NRC Licensing Project Plan (LPP) Integrated Schedule. However, the level of effort, deliverables, and contract costs shall be in accordance with the original contract criteria.

** The schedule completion of this item is subject to receiving an advanced schedule showing the expected delivery dates of the RAI responses ahead of time, and subject to receiving a reasonable number and level of complexity of RAI responses before the given three week period.

The laboratory shall provide the following information prior to initiation of a task order:

- A staffing plan that specifically reflects services to be provided
- The laboratory shall also provide a statement of professional qualifications for staff proposed to work under this task order.

6.0 TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

The laboratory 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 design and analysis of nuclear steel and concrete containment and other Category I structures, systems, and mat foundations for various load combinations, modeling of complicated structures, finite element structural analysis methods, use of sophisticated structural analysis computer codes, implementation of NRC regulations, use of US industry codes and standards applicable for design and construction of nuclear power plants.

The NRC will rely on representations made by the laboratory 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 COR's approval. This includes any proposed changes to key personnel during the life of the task order.

7.0 ESTIMATED LABOR CATEGORIES AND LEVELS OF EFFORT

Intentionally left blank.

8.0 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 COR, after discussion with the laboratory Project Manager (PM). Travel in excess of the total number of person-trips must be approved by the Contacting Official (CO); travel within the work scope limits will be approved by the COR. For each trip the laboratory shall provide a trip report.
- Four, two-person, five-day trips to the applicant's facility to perform design audit.

- Four, two-person, two-day meetings at NRC headquarters to attend ACRS meeting, if required.

*At the discretion of the NRC COR, meetings may be conducted at the laboratory or via telephone or video conference

Foreign travel for the DOE laboratory personnel requires a 60-day lead time for NRC approval. For prior approval of foreign travel, the DOE laboratory shall submit an NRC Form 445, "Request for Approval of Official Foreign Travel." NRC Form 445 is available in the MD 11.7 Documents library and on the NRC Web site at: <http://www.nrc.gov/reading-rm/doc-collections/forms/>. Foreign travel is approved by the NRC Executive Director for Operations (EDO).

9.0 REPORTING REQUIREMENTS

The DOE Laboratory is responsible for structuring the deliverable to follow agency standards. The current agency standard is Microsoft Office Suite 2010. The current agency Portable Document Format (PDF) standard is Adobe Acrobat 9 Professional. Deliverables must be submitted free of spelling and grammatical errors and conform to requirements stated in this section.

Monthly Letter Status Reports

In accordance with Management Directive 11.7, NRC Procedures for Placement and Monitoring of Work with the U.S. Department of Energy, the DOE Laboratory must electronically submit a Monthly Letter Status Report (MLSR) by the 20th day of each month to the Contracting Officer Representative (COR) with copies to the Contracting Officer (CO) and the Office Administration/Division of Contracts to ContractsPOT.Resource@nrc.gov. If a project is a task ordering agreement, a separate MLSR must be submitted for each task order with a summary project MLSR, even if no work has been performed during a reporting period. Once NRC has determined that all work on a task order is completed and that final costs are acceptable, a task order may be omitted from the MLSR.

A copy of the MLSRS should be sent to NRO_MLSRS@nrc.gov.

The MLSR must include the following: agreement number; task order number, if applicable; job code number; title of the project; project period of performance; task order period of performance, if applicable; COR's name, telephone number, and e-mail address; full name and address of the performing organization; principal investigator's name, telephone number, and e-mail address; and reporting period. At a minimum, the MLSR must include the information discussed in Attachment 1. The preferred format for a MLSR can also be found in Attachment 1.

10.0 PERIOD OF PERFORMANCE

See block 7 of the Interagency Agreement.

11.0 CONTRACTING OFFICER'S REPRESENTATIVE

The COR monitors all technical aspects of the agreement/task order and assists in its administration. The COR is authorized to perform the following functions: assure that the DOE

Laboratory performs the technical requirements of the agreement/task order; perform inspections necessary in connection with agreement/task order performance; maintain written and oral communications with the DOE Laboratory concerning technical aspects of the agreement/task order; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor the DOE Laboratory's performance and notify the DOE Laboratory of any deficiencies; coordinate availability of NRC-furnished material and/or GFP; and provide site entry of DOE Laboratory personnel.

Contracting Officer's Representative

Name: Vaughn Thomas
Agency: U.S. Nuclear Regulatory Commission
Office: NRO/DE
Mail Stop: T-08K1
Washington, DC 20555-0001
E-Mail: Vaughn.Thomas@nrc.gov
Phone: 301-415-5897

Alternate Contracting Officer's Representative

Name: Robert Roche
Agency: U.S. Nuclear Regulatory Commission
Office: NRO/DE
Mail Stop: T-08K1
Washington, DC 20555-0001
E-Mail: Robert.Roche@nrc.gov
Phone: 301-415-8113

12.0 MATERIALS REQUIRED (TYPE N/A IF NOT APPLICABLE)

N/A

13.0 NRC-FURNISHED PROPERTY/MATERIALS (TYPE N/A IF NOT APPLICABLE)

The COR will provide those NRC documents related to the applicable portions of the application (for example, the Design Control Documents and the Technical Reports) that are readily available. The COR will provide access to the applicant's safety analysis report, pertinent sections of the COL, DC, or other NRC safety documents and docketed correspondence on related issues. The laboratory staff will identify any additional NRC documentation that is needed and the COR will determine whether it will be provided by the NRC or obtained directly by the laboratory from NUDOCS, ADAMS, NRC public document room or the NRC website at www.nrc.gov.

14.0 RESEARCH QUALITY (TYPE N/A IF NOT APPLICABLE)

N/A

15.0 STANDARDS FOR CONTRACTORS WHO PREPARE NUREG-SERIES MANUSCRIPTS (TYPE N/A IF NOT APPLICABLE)

N/A

16.0 OTHER CONSIDERATIONS (TYPE N/A IF NOT APPLICABLE)

License Fee Recovery

Pursuant to the provisions on fees of 10 CFR Parts 170 and 171, provide the total amount of funds spent during the period and cumulative to date for each task/task order by facility. The License Fee Recovery Status Report must be reported in accordance with MD 11.7

Expected Classification or Sensitivity

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

References (Type N/A if not applicable)

N/A

Assumptions and understandings

The level of effort for Task 1 is based on the assumption that the laboratory is familiar with the review procedures of (ESRP/SRP) the ESBWR DCD, the AP1000 DCD, and previous DCD review work (e.g., Task Order 5 under JCN QBC02) involving the structural review of the US-APWR standard plant.

The level of effort for Task 2 and 3 are based on the assumption that there will be approximately 100 RAIs and RAI responses including supplemental responses.

The level of effort for Task 4 is based on four, two-person, five-day trip (including travel time and the time needed to develop the trip reports) to the applicant's facility (TBD) to perform design audit.

The level of effort for Task 5 is based on BNL's experience in performing similar safety evaluation reviews.

The level of effort for Tasks 6 through 10 is based on the staff experience in having BNL perform similar tasks.

The level of effort for Task 10 is based on the assumption that 260 hours will be used for evaluating the staff confirmatory analyses, as needed.

It is assumed that the laboratory has access to the NRC furnished material that is 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 COR, and possibly other NRC personnel, may travel to the laboratory 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.

The primary deliverable, or output of this regulatory review, shall be letter reports forming input for developing the staff's SER which documents the NRC's technical, safety, and legal basis for its review finding on the application.

Applicable Publications (Type N/A if not applicable)

N/A

Controls over document handling and non-disclosure of materials (Type N/A if not applicable)

N/A