

From: Grenier, Bernard *NR*
To: Frumkin, Daniel
Subject: FW: REVISED SOW FOR TASK ORDER 1 UNDER JCN J-4242
Date: Wednesday, August 26, 2009 12:22:11 PM
Attachments: [TASK 1 SCHEDULE.pdf](#)
[TO1 J4242 SOW redline R2 09262009.doc](#)

Dan,

Ken must not have anything else to do!!!

My suggestion is that we give him the 248 hours and tell him that the three milestone dates we want him to meet are September 22 for Oyster Creek, October 7 for Indian Point and October 19 for Wolf Creek. Amen... let's get on with it!

Bernie

From: Sullivan, Kenneth [mailto:ks@bnl.gov] *KS*
Sent: Wednesday, August 26, 2009 11:46 AM
To: Grenier, Bernard
Cc: Frumkin, Daniel; Higgins, James C; Lofaro, Nancy M
Subject: RE: REVISED SOW FOR TASK ORDER 1 UNDER JCN J-4242

Bernie

Using the stated assumed start date of September 8, and the agreed upon LOE of 248 hours, it would not be physically possible to complete subtask 1 this project by the desired October 15 "deadline" (there just aren't enough billable hours in that time period) . If the start date remains at Sept. 8, the earliest completion time I can reasonably commit to is October 19. As shown on the attached revision of the proposal, to meet this new deadline required a reduction in the LOE for sub-task 1 from 248 hours (31 days staff days) to 224 hours (28 Staff Days). I feel that this is the minimum amount of time necessary to complete subtask 1 without jeopardizing the quality of work.

To provide additional clarification, I am also attaching a pdf version of a Project Schedule I developed using MS Project. As shown, subtask 1 involves the review of submittals provided by three plants (Indian Point, Oyster Creek and Wolf Creek). The review of Indian Point and Oyster Creek requires an evaluation of two separate submittals for each plant (4 total). The Wolf Creek evaluation consists of a single (comparatively lengthy) submittal. Therefore, subtask 1 requires an evaluation of each of the 5 submittals and a TLR (containing RAIs) for each of the three plants. Therefore, subtask 1 actually consists of 8 separate subtasks as shown on the Project Schedule. The proposed completion date for each of the 8 sub-tasks is shown on both the proposal and the Project Schedule.

I also agree to provide an estimate of the costs for each of the five TAC numbers, in the Monthly Business Letter Report .

I have revised the period of performance section of the SOW from nine months to five, with the

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understanding that it may need to be adjusted during the course of the project.

I would appreciate a prompt response to this proposal to avoid any further delay in the start of work.

Thanks!

Ken Sullivan
Research Engineer
Energy Sciences and Technology Department
Brookhaven National Laboratory

(631) 344-7915
<mailto:ks@bnl.gov>

From: Grenier, Bernard [<mailto:Bernard.Grenier@nrc.gov>]
Sent: Wednesday, August 26, 2009 10:19 AM
To: Sullivan, Kenneth
Cc: Frumkin, Daniel; Higgins, James C; Lofaro, Nancy M
Subject: RE: REVISED SOW FOR TASK ORDER 1 UNDER JCN J-4242

Ken,

This is a follow-up to our discussions this morning concerning your technical proposal.

We agreed that scope of Task 1 would stay as it was described in our SOW; there will be three Subtasks.

We agreed on the level of effort for Task 1 as 248 hours.

Though we did not reach agreement on the schedule for completion of Task 1, we agreed that it would be based on your working full-time on this project and that all three Subtasks would be completed by mid-October. You are going to proposed specific milestone dates for each Subtask.

As for license fee recovery, you will make an estimate of the costs for each unit, or TAC number, and report them in the Monthly Business Letter Report following the format provided in the overall contract Statement of Work.

The period of performance will probably be around five months and the specific dates will be in the SOW and on the NRC Form 173. If we need to extend the period of performance, we will deal with that when the time comes.

Yes, I will be the Project Officer on this contract.

We look forward to receiving your proposal as soon as possible.

Bernie

From: Sullivan, Kenneth [mailto:ks@bnl.gov]
Sent: Monday, August 24, 2009 5:23 PM
To: Grenier, Bernard
Cc: Frumkin, Daniel; Higgins, James C; Loffredo, Theresa
Subject: RE: REVISED SOW FOR TASK ORDER 1 UNDER JCN J-4242

Bernie

I have the following comments on the SOW for Task 1 of J-4242:

1. The Level of Effort for Sub-task 1 is not sufficient. Although the SOW involves a review of licensing actions submitted by three plants (Oyster Creek, Indian Point and Wolf Creek), the licensing actions submitted by the three plants actually require a review of 5 separate submittals, as follows:

1. Oyster Creek Phase 1 (Previously Approved Manual Operator Actions),
 - 65 Page submittal describing the technical basis for 20 Manual Actions needed for a fire in 34 Fire Areas
2. Oyster Creek Phase 2 (New Manual Actions),
 - 120 Page submittal describing the technical basis for 18 Manual Actions needed for a fire in 38 Fire Areas
3. Indian Point 2,
 - 45 Page submittal describing the technical basis for 20 Manual Actions needed for a fire in 7 Fire Areas
4. Indian Point 3,
 - 53 Page submittal describing the technical basis for 34 Manual Actions needed for a fire in 5 Fire Areas
5. Wolf Creek,
 - 148 Page submittal describing the technical basis for 7 Manual Actions needed for a fire in 14 Fire Areas

As shown on the attached redlined revision, For Sub-Task 1, I estimate that 4 staff days of effort will be required for the evaluation of each submittal except Wolf Creek, which, due to its size, will require an additional 2 staff days of effort. The LOE for the review and evaluation of

all submittals is estimated to be 22 professional staff days. In addition, Sub task 1 requires a separate TLR to be submitted for each review. I estimate that an additional 15 staff days will be required to develop a separate the TLR for each of the five submittals (3 days for each).

Thus, the total LOE for Sub-task 1 is 37 staff days. This is an increase of 146 hours (from 150 hours to 296 hours). One possible way to reduce this LOE is for us to provide a single TLR that summarizes the results (i.e. the RAIs) of all 5 reviews rather than a separate TLR for each. Or we could provide a separate TLR for each plant (3 TLRs total)

2. The "Project Officer" is not identified in the SOW – Should I assume it is you?

3, The period of performance should be stated up front in the SOW

4. The work under this task order is license fee recoverable – not clear how are we going to differentiate costs between plants. Should each TAC number have a separate task number (e.g. Task 1A, 1B etc) with a corresponding BNL acct No?

Let me know your thoughts

Thanks

Ken

From: Grenier, Bernard [mailto:Bernard.Grenier@nrc.gov]
Sent: Friday, August 21, 2009 1:47 PM
To: Sullivan, Kenneth
Cc: Frumkin, Daniel; Loffredo, Theresa
Subject: REVISED SOW FOR TASK ORDER 1 UNDER JCN J-4242

Ken,

After further discussion with Dan, we decided to establish different milestones for Task 1. The attached SOW reflects those changes.

The milestones are set based on a start date of no later than September 8th. If that date is not met, we will have to readjust the milestones.

As noted in the RFP, you are welcome to make a counter-proposal; please state why in your proposal.

Have a good weekend!

Bernie

Statement of Work for
Task Order 1 under J-4242

Title: Oyster Creek, Indian Point 2 & 3 and Wolf Creek

Technical Monitor: Daniel M. Frumkin, (301) 415-2280; E-mail: Daniel.frumkin@nrc.gov

TAC Number: Oyster Creek, ME0756
Oyster Creek, ME0780
Indian Point 2, ME0798
Indian Point 3, ME0799
Wolf Creek, ME0797

BACKGROUND

In the year 2000, the NRC implemented the Reactor Oversight Process which included systematic inspections of licensees' safe shutdown capability. During these inspections, fire protection inspectors identified that licensees had not upgraded or replaced Thermo-Lag 330-1 fire barrier material or had not provided the required separation distance between redundant safe shutdown trains, in order to satisfy the requirements in paragraph III.G.2 of Appendix R to 10 CFR Part 50. Some licensees compensated for the lack of or degraded fire barriers by relying on operator manual actions which had not been reviewed and approved by the NRC through the 10 CFR 50.12 exemption process. Other licensees misinterpreted paragraph III.G.1 to allow the use of operator manual actions where redundant safe shutdown trains are in the same fire area in lieu of the means specified in paragraph III.G.2. Licensees are expected to request licensing actions, either exemptions (for plants licensed before January 1979) or 10 CFR 50.90 license amendments (for plants licensed after January 1979), in two areas to resolve these issues. The two areas are operator manual actions and fire-induced circuit failures.

Operator Manual Actions

The regulations in 10 CFR Part 50.48(b) impose the requirements of paragraph III.G.2 of Appendix R on plants licensed to operate before January 1, 1979 (pre-1979 licensees). As originally issued, 10 CFR 50.48, "Fire Protection," allowed licensees to request an exemption from compliance with one or more of the provisions of Appendix R if the licensee justified the exemption on the basis that the required modifications would not enhance fire protection safety in the facility or that the modifications might be detrimental to overall facility safety. Plants that were licensed to operate before January 1, 1979, must request an exemption in accordance with 10 CFR 50.12 to use manual actions in lieu of the protection requirements of III.G.2.

Plants licensed to operate on or after January 1, 1979 (post-1979 licensees), are not required to meet the requirements of paragraph III.G.2. A license amendment and its accompanying SER are sufficient to approve the use of manual operator actions in lieu of III.G.2 type protection without an exemption. If a licensee does not obtain a license amendment and SER they may be requested to demonstrate, as part of the NRC Reactor Oversight Process, that the use of an operator manual action would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire consistent with their license.

OBJECTIVE

The objective of this task order is to obtain technical expertise from the Brookhaven National Laboratory (BNL) to assist NRC staff in determining the safety adequacy of the operator manual actions and fire-induced circuit failures as found in the licensing actions for Oyster Creek, Indian Point 2 & 3 and Wolf Creek.

TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

One expert level Engineer/Scientist on a part-time, intermittent basis, with in-depth knowledgeable and experience in the areas of nuclear power plant fire protection, fire safe shutdown, post-fire operator manual actions, shutdown strategies in PWR and BWR plant designs, as applied to nuclear power plants.

WORK REQUIREMENTS AND SCHEDULE

| <u>Tasks</u> | <u>Scheduled Completion</u> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 1. Based on the regulations found in 10 CFR Part 50.48(b), specifically paragraph III.G.2 of Appendix R, review and evaluate each licensee's submittal and determine the adequacy of the licensee's consideration of regulatory requirements and safety noting any inconsistencies and non-conservatisms. Identify the need for any additional or clarifying information (RAIs) and prepare a technical letter report. | |
| a. Evaluate Oyster Creek Phase 1 Submittal (3 man-days) | September 11, 2009 |
| b. Evaluate Oyster Creek Phase 2 Submittal (3 man-days) | September 16, 2009 |
| c. Oyster Creek TLR; (4 man-days) | September 22, 2009 |
| d. Evaluate Indian Point 2 Submittal (3 man-days) | September 25, 2009 |
| e. Evaluate Indian Point 3 Submittal (3 man-days) | October 1, 2009 |
| f. Indian Point 2 and 3 RAI TLR (4 man-days) | October 7, 2009 |
| g. Evaluate Wolf Creek Submittal (5 man-days) | October 14, 2009 |
| h. Wolf Creek RAI TLR (3 man-days) | October 19, 2009 |
| 2. Participate in discussions with the Technical Monitor to discuss NRC comments and questions on the RAIs. | To be mutually agreed upon. |

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WORK REQUIREMENTS AND SCHEDULE (CONTINUED)

| <u>Tasks</u> | <u>Scheduled Completion</u> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 3. Review and evaluate the licensee's responses to the RAIs and identify those issues that have been resolved noting the basis for the resolution and those items for which further information may be needed. Prepare a technical letter report. | |
| a. Oyster Creek | |
| (1) Draft. | Two weeks after receipt of the RAI responses. |
| (2) Participate in telephone calls with the licensee to obtain further information and/or to discuss and attempt to resolve outstanding issues. | To be mutually agreed upon. |
| (3) Incorporate additional information obtained from the licensee and/or NRC comments and prepare the final report. | One week after receipt of additional information or NRC comments. |
| b. Indian Point 1 and 2 | |
| (1) Draft. | Two weeks after receipt of the RAI responses. |
| (2) Participate in telephone calls with the licensee to obtain further information and/or to discuss and attempt to resolve outstanding issues. | To be mutually agreed upon. |
| (3) Incorporate additional information obtained from the licensee and/or NRC comments and prepare the final report. | One week after receipt of additional information or NRC comments. |
| c. Wolf Creek | |
| (1) Draft. | Two weeks after receipt of the RAI responses. |
| (2) Participate in telephone calls with the licensee to obtain further information and/or to discuss and attempt to resolve outstanding issues. | To be mutually agreed upon. |
| (3) Incorporate additional information obtained from the licensee and/or NRC comments and prepare the final report. | One week after receipt of additional information or NRC comments. |

LEVEL OF EFFORT

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

| <u>Tasks</u> | <u>Level of Effort (hours)</u> |
|--------------|--------------------------------------|
| 1. | 248 224 Staff Hours [28 Staff Days] |
| 2. | 50 |
| 3. | 300 |
| Total | 646 574 |

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PERIOD OF PERFORMANCE

The projected period of performance for this task is projected to be five months from authorization of work.

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DELIVERABLESTechnical Reporting Requirements

Note: All reports are to be submitted electronically using Microsoft Word 2003 (Font Arial regular 11 point) to the Technical Monitor with a copy provided to the Project Officer. In all correspondence, include the following information: JCN No., Task No., TAC No., and NRC/NRR Branch: Fire Protection Branch, DRA, NRR.

- At the completion of Task 1, submit a technical letter report that contains a summary of the work performed to include, for each of the plants: identification of compliance and safety issues that were not sufficiently described to support the issuance of a technical evaluation report and requests for additional information. See Attachment 1 for format, content, and outline of RAIs to be included in the technical letter report; the RAIs must clearly articulate the bases for the need for further information or discussion.
- At the completion of Task 3, submit a technical letter report, draft and final as appropriate, that contains the information formatted in accordance with the current NRC Office Instructions for exemptions and licensing actions. See NRC furnished materials for appropriate documents.

MEETINGS AND TRAVEL

None.

NRC-FURNISHED MATERIALS

The following NRC furnished materials are available through the NRC ADAMS document management system:

| <u>Plant Name, TAC Number</u> | <u>Submittal Date, Accession Number</u> |
|-------------------------------|-----------------------------------------|
|-------------------------------|-----------------------------------------|

Oyster Creek, ME0756

3/3/2009, ML090630132

| | |
|------------------------|-----------------------|
| Oyster Creek ME0780 | 3/4/2009, ML090640225 |
| Indian Point 2, ME0798 | 3/6/2009, ML090770151 |
| Indian Point 3, ME0799 | 3/6/2009, ML090760993 |
| Wolf Creek, ME0797 | 3/4/2009, ML090771269 |

Available on NRC Website

Regulatory Guide 1.189 – Fire Protection for Nuclear Power Plant
NUREG-0800- Standard Review Plan 9.5.1.1 Fire Protection

NRC-FURNISHED MATERIALS (CONTINUED)

The following documents were transmitted electronically to the BNL Project Manager on July 31, 2009:

LIC-101 - License Amendment Review Procedures
LIC-103 - Exemption from NRC Regulations
LIC-111 – Regulatory Audits

NOTE: All the proprietary information provided by NRC must be safeguarded against unauthorized disclosure. After completion of work, the documents should either be destroyed or returned to NRC. If they are destroyed, please confirm this in an E-mail to the Technical Monitor with a copy to the Project Officer and include the date and manner in which the documents were destroyed.

OTHER APPLICABLE INFORMATION

License Fee Recovery

The work under this task order is license fee recoverable.

Assumptions and Understandings

None.

Organizational Conflict of Interest Disclosure

DOE recognizes that Section 170A of the Atomic Energy Act of 1954, as amended, requires that NRC be provided with disclosures on potential conflicts when NRC obtains technical, consulting, research and other support services. DOE further recognizes that the assignment of NRC work to DOE Laboratories must satisfy NRC's conflicts standards. Accordingly, when NRC enters into an agreement with the BNL to perform work for NRC, and during the life of the agreement, the BNL shall review and promptly disclose its current work, planned work and where appropriate, past work for DOE and others (meaning, organizations, in the same/similar technical area as the NRC project scope of work, e.g. (included but not limited to), NRC licensees, vendors, industry groups or research institutes that represent or are substantially comprised of nuclear utilities) for work in the same or similar technical area as the proposed NRC project. Disclosures for current

or planned work for DOE or others in the same or similar technical area as the proposed NRC work are to include (1) the name of organization; (2) dollar value; (3) period of performance of the work identified; and (4) statements of work for the projects. NRC shall then determine whether a conflict would result and, if one does, determine, after consultation with the BNL, the appropriate action NRC or the BNL should take to avoid the conflict, or when appropriate under the NRC procedures, waive the conflict.

If the BNL determines there is no applicable work in the same or similar technical area, it should be stated in its proposal.

REQUEST FOR ADDITIONAL INFORMATION – FORMAT
(EXAMPLE)

RAI#: (NRC PM will assign)
Exemption for Peach Bottom

Background:

In Section 2.0 of your Exemption Request, you states that modifications would be necessary in order to achieve compliance and that the effort and/or associated with these modifications represent unwarranted burden on the licensee since they are not necessary to meet the underlying purpose of the rule..

Issue:

10 CFR 50.12 allows exemption to NRC regulation given special circumstances are met. This submittal does not provide a technical or financial justification that demonstrates these special circumstances are met.

Request:

1. Provide a justification of the special circumstances that are present and warrant the consideration of this exemption request. If potentially-incurred costs associated with regulatory compliance are assumed to constitute special circumstances, provide a cost analysis and any other justification demonstrating that such costs are significantly in excess of those contemplated when the regulation was adopted.
2. If it is the licensee's position that the protective measures prescribed by III.G.2 are not necessary to meet the underlying purpose of the rule, provide a technical justification regarding how the proposed arrangement achieves the underlying purpose of the rule.

Additional Information Regarding Requests for Additional Information (RAIs)

Additional information necessary to resolve open or unresolved items identified during the review of the information associated with the steam dryer failure and modification needs to be requested in a manner that is unambiguous, has an adequate basis, and is necessary for the safety review. The technical letter report should provide a list of RAIs using the following guidance:

1. An RAI should include the appropriate basis for requesting the information. The basis should explain why the information is needed, including how it will be used to help make a reasonable assurance finding
2. Judgmental language should be avoided.
 - a. Questions should not make adequacy determinations.
 - b. Words like "unacceptable" or "deficient" and "deviation" should be avoided. Likewise, avoid using phrases like *"the staff will require"* since it is premature to require anything when asking questions.

3. Questions should be focused, not open-ended.
 - a. The RAI should be in the form of a question or an imperative to provide what is needed to complete the review. When the reviewer needs specific information or the underlying issue may not be apparent, the RAI should clearly identify the information requested and/or the underlying issue.
 - b. "If ... then" questions (questions that could lead to follow-on questions) should provide both parts of the question.
4. After the RAIs have been issued, licensee may request a telephone conference and/or a public meeting:
 - a. The teleconferences and/or meetings provide additional clarification of the intent of the RAIs and will help licensees prepare satisfactory responses.
 - b. To ensure that the response appropriately addresses the RAI, the licensee may submit a draft response (which the NRC Project Manager docket in the Agency-Wide Documents Access and Management System (ADAMS)) and may request a follow-up teleconference and/or meeting.