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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

November 5, 1999

Beckman and Associates, Inc.
Attn: Vicki Beckman
1071 State Route 136
Belle Vernon, PA 15012

SUBJECT: TASK ORDER NO. 051, "D.C. COOK INSTRUMENT UNCERTAINTY INSPECTION" UNDER CONTRACT NO. NRC-03-98-021

Dear Ms. Beckman:

In accordance with Section G.5, Task Order Procedures, of the subject contract, this letter definitizes the subject task order. The effort shall be performed in accordance with the enclosed Statement of Work.

Task Order No. 051 shall be in effect from November 5, 1999, through December 3, 1999, with a total cost ceiling of \$23,435.03. The amount of \$22,697.37 represents the estimated reimbursable costs and the amount of \$737.66 represents the fixed fee.

Accounting data for Task Order No. 054 is as follows:

B&R No.:	020-15-103-105
Job Code:	J-2548
BOC:	252A
APPN No.:	31X0200.020
FFS#:	NRR98021051
Oblig. Amt.:	\$23,435.03

The following individual is considered to be essential to the successful performance of work hereunder: Mr. Robert Quirk. The Contractor agrees that such personnel shall not be removed from the effort under the task order without compliance with Contract Clause H.4, Key Personnel.

The issuance of this task order does not amend any terms or conditions of the subject contract.

PDR CONTR

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Your contacts during the course of this task order are:

Technical Matters: Edmund Klee
Project Officer
(301) 415-2964

Contractual Matters: Mona Selden
Contract Specialist
(301) 415-7907

Acceptance of Task Order No. 051 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. You should retain the third copy for your records.

Sincerely,


Sharon D. Stewart, Contracting Officer
Contract Management Branch 2
Division of Contracts and Property Management
Office of Administration

Enclosure: Statement of Work

ACCEPTED: Task Order No. 051



NAME



TITLE



DATE

STATEMENT OF WORK
Task Order 051

TITLE: D.C. Cook Instrument Uncertainty Inspection

DOCKET NUMBER: 50-315/316 B&R NUMBER: 020-15-103-105 JOB CODE: J-2548
INSPECTION REPORT NUMBER: 50-336/

NRC PROJECT OFFICER: E. A. Kleeh, NRR (301) 415-2964

TECHNICAL MONITOR: Zelig Falevits, NRR (630) 829-9717

PERFORMANCE PERIOD: November 5, 1999 - December 3, 1999

BACKGROUND

An NRC design (AE) inspection completed in September 1997, identified issues that resulted in operability concerns for safety related systems and components. The licensee voluntarily shutdown both units of the D. C. Cook plant as identified required corrective actions in a letter to the NRC. CAL 97-011 dated September 19, 1997 formalized the commitment for the licensee to remain shutdown until compensatory actions were undertaken. Subsequently the licensee by self-assessments and the NRC by additional inspections identified more performance issues that were incorporated into a pre-startup checklist attached to a letter sent from NRC to licensee on July 30, 1998. The items on that checklist had to be resolved by licensee as prerequisites to startup of either D.C. Cook unit. This inspection is being performed to check the status of instrument setpoints for some issues identified on that checklist and to verify their acceptability.

OBJECTIVE

The objective of this Task Order is to obtain expert technical assistance from one specialist in the performance of Instrument Uncertainty Inspection at D.C. Cook. The specialist should have an engineering background in instrumentation and controls (I&C) with emphasis on experience, as from architect-engineer firms or consulting firms establishing and maintaining setpoints for safety systems in nuclear plants. The specialists should also be familiar with installation and surveillance testing of instrumentation mainly in the verification and calibration of process setpoints. The specialist should be thoroughly familiar with NRC regulations, inspection methodology, and the regulatory process. The specialist should be able to develop a list of regulatory commitments from docketed licensee correspondence for the plant systems or components associated with the setpoints being reviewed. The specialist should be able to verify the implementation of those same licensee commitments and assess the effectiveness of the licensee's actions. The specialist should be indoctrinated with the concepts of the NRC's risk-informed inspection program. The inspection will be conducted in accordance with IPs 92903 "Followup - Engineering" and 93807 "Systems Based Instrumentation and Control Inspection".

It shall be the responsibility of the contractor to assign technical staff, employees, and subcontractors, who have the required combination of educational background and experience to meet both the technical and regulatory objectives of the work specified in this Statement Of Work (SOW). The NRC will rely on representation made by the contractor concerning the qualifications of the personnel proposed for assignment to this task order including assurance that the information contained in the technical and cost proposals, including resumes and conflict of interest disclosures, is accurate and truthful.

WORK REQUIREMENTS AND SCHEDULE

The contractor shall provide the qualified specialist, and the necessary facilities, materials, and services to assist the NRC staff in preparing for, conducting, and documenting the inspection activities and findings. The contractor shall provide the latest rad-worker training and MMPI test dates of the specialist to the Project Officer. The Technical Monitor/Team Leader for this task is Zelig Falevits. The Technical Monitor may issue technical instructions from time to time during the duration of this task order. Technical instructions must be within the general statement of work stated in this task order and shall not constitute new assignments of work or changes of such nature as to justify an adjustment in cost or period of performance. The contractor shall refer to the basic 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 and will be coordinated with the NRR Project Officer. Specific tasks under this task order are:

<u>Task</u>	<u>Schedule Completion</u>
1. Prepare for the Instrument Uncertainty Inspection. a. Review the Startup Checklist items specific to instrument setpoints. b. Request and read with deliberation the documentation related to the setpoints for the assigned review area for this inspection. c. Develop an inspection plan that is both flexible and comprehensive that defines tasks and goals to be accomplished during the onsite inspection week. d. Review the CAL related inspection reports, LERs, and Manual Chapter 0350 open items.	1. Prepare for the instrument uncertainty inspection for D.C. Cook at Region III main office in Lisle, Illinois on or about November 8 - 12, 1999.
2. Perform the inspection a. Make queries to the licensee on setpoint methodology, surveillance testing, and setpoint tolerances and uncertainties relevant to the intent of the inspection. b. Evaluate thoroughly the setpoints contained in the assigned review area. 1.) Calculated in accordance with methodologies defined in NRC topical reports, Regulatory Guides, or industry standards. 2.) Utilize correct inputs from Tech Specs, accident analyses, or design basis document. 3.) Verify that effects of physical elevation, density ranges, and temperature ranges are appropriately considered. 4.) Verify that trip setpoint have sufficient margins from both the analytical and safety limits after taking into account instrument errors, instrument loop accuracies, and relevant uncertainties. 5.) Evaluate the assumptions for inclusion of both errors and uncertainties for various	2. On-site inspection is to take place at D.C. Cook site on or about November 15 - 19, 1999.

component into the calculation of the setpoints.

c. Respond in a timely manner to licensee's responses to queries made in 2.a.

d. Identify and develop findings in accordance with the intent of IP 93807.

e. Verify that licensee corrective actions for any setpoint related problems are both appropriate and effective for resolution of the issue in accordance with IP 92903.

3. Prepare the inspection report.

a. Follow the guidelines of NRC INSPECTION MANUAL , Manual Chapter 0610, "Inspection Reports." unless otherwise directed by Technical Monitor.

b. Feeder report should discuss inspection activities, be concise, and focus on safety significant findings based on facts and regulatory requirements.

3. Documentation of inspection will take place on or about November 22 - 26, 1999 in contractor's home office. Final feeder report input is due on or about November 29, 1999.

REPORT REQUIREMENTS

Technical Report

At the completion of Task 1, the contractor's specialist shall provide an inspection plan to the NRC Team Leader. The format and scope of this input shall be as directed by the NRC Team Leader.

During Task 2 , the contractor's specialist shall provide daily reports to the NRC Team Leader. The format and scope of this report shall be as directed by the NRC Team Leader.

At the completion of Task 2 (prior to the inspection team's debriefing the licensee), the contractor's specialist shall provide a summary of their inspection findings to the NRC Team Leader. The format and scope shall be as directed by the NRC Team Leader. Typically, this input will consist of a handwritten summary or the specialist's inspection findings.

At the completion of Tasks 3, the contractor shall send a copy of the final inspection report input (feeder report) to the NRC Project Officer and the original and one computer diskette version (WordPerfect 5.1/6.1 or other IBM PC compatible software acceptable to the NRC Team Leader) to the NRC Team Leader. The format and scope of the final report inputs shall be in accordance with the guidance in NRC Inspection Manual Chapter 0610 or as directed by the NRC Team Leader.

Team Leader.

A specialist's feeder report will serve as documentation of the specialist's inspection activities, effort, and findings, and will be used by the NRC Team Leader for the preparation of the NRC's inspection report. The form and scope of the final report input shall be in accordance with the guidance in NRC Inspection Manual Chapter 0610 or as directed by the NRC Team Leader. As a minimum, each specialist's report input shall include the following:

- Identity of the individuals (name, company, and title) that provided information to the specialist during the inspection
- For each area inspected, a description of the activities and general findings and conclusions reached regarding the adequacy of the area.
- For each area with a concern or findings, a discussion of the concerns or findings with technical bases.

NOTE: The contractor is not required to undertake any further efforts toward report finalization. For example, management review of the feeder report beyond its submittal to the NRC Team Leader and Project Officer is not needed.

Business Letter Report

The contractor shall provide monthly progress reports in accordance with the requirements of the basic contract.

MEETINGS AND TRAVEL

For estimating purposes, the following meetings and travel are anticipated:

One, one-person, 5 day trip to Region III in Lisle, Illinois to prepare for instrument uncertainty inspection on or about November 8 -12, 1999.

One, one-person, 5 day trip to the D.C. Cook site near Benton Harbor, Michigan on or about November 15 to 19, 1999.

NOTE: The contractor's staff shall coordinate all travel arrangements in advance with the NRC Team Leader.

NRC FURNISHED MATERIAL

Documents required to prepare for the inspection will be provided by the NRC Team Leader.

OTHER APPLICABLE INFORMATION

The work specified in this SOW is 100% licensee fee recoverable. The contractor shall provide fee recovery information in the monthly progress reports in accordance with the requirements of the basic contract.

The contractor's specialist assigned to this task order will have to be badged for unescorted access privilege at the plant site. The contractor shall provide all documentation required for badging (as identified by the NRC Team Leader) at the plant site. Questions concerning badging and the plant site access shall be addressed to the NRC Technical Monitor.