



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

DEC 20 1990

Parameter, Inc.  
ATTN: Richard A. Lofy  
13380 Watertown Plank Road  
Elm Grove, Wisconsin 53122

Dear Mr. Lofy:

Subject: Task Order No. 13 Under Contract No. NRC-03-89-027 Entitled  
"NRC Followup To Construction Assessment Team Inspection of  
TVA Construction at Watts Bar Unit 1 (FIN L-1343)

This letter confirms verbal authorization provided to Lou Albers by Brenda DuBose, of my staff, on November 26, 1990, to commence work on the subject Task Order effective November 26, 1990, with a temporary ceiling of \$25,000.00.

In accordance with Section G.6, Task Order Procedures, of the subject contract, this letter definitizes Task Order No. 13. This effort shall be performed in accordance with the enclosed Statement of Work and Parameter Inc.'s technical proposal dated November 29, 1990, incorporated herein by reference.

The period of performance for Task Order No. 13 is November 26, 1990 through February 29, 1991. The total cost ceiling is \$58,498.43. The amount of \$57,155.10 represents the total reimbursable costs, the amount of \$17.34 represents the facilities capital cost of money, and the amount of \$1,325.99 represents the fixed fee.

Accounting data for Task Order No. 13 is as follows:

B&R No.:	020-19-14-03-0
FIN No.:	L-1343-0
Appropriation No.:	31X0200.200
Obligated Amount:	\$58,498.43
(This amount has been obligated under the basic contract.)	

The following individuals are considered by the Government to be essential to the successful performance of the work hereunder:

D. Beckman  
D. Waters  
D. Ford

9101040142 901226  
PDR CONTR  
NRC-03-89-027 PDR

Richard A. Lofy

NRC-03-89-027  
Task Order No. 13  
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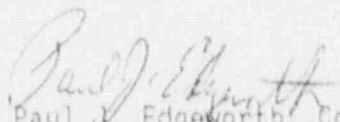
The contractor agrees that such personnel shall not be removed from the effort under this task order without compliance with Contract Clause H.2 - Key Personnel.

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

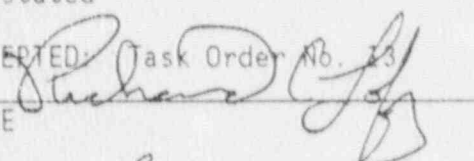
Acceptance of Task Order No. 13 should be made by executing three copies of this document in the space provided and returning two copies to the Contract Administrator. You should retain the third copy for your records.

Should you have any questions regarding this matter, please feel free to contact Brenda DuBose, Contract Management Assistant, on (301) 492-7442.

Sincerely,

  
Paul J. Edgeworth, Contracting Officer  
Contract Administration Branch No. 1  
Division of Contracts and  
Property Management  
Office of Administration

Enclosure:  
As stated

ACCEPTED: Task Order No. 13  
  
NAME

PRES.  
TITLE

12/26/90  
DATE

STATEMENT OF WORK  
CONTRACT No. NRC-03-89-027  
TASK ORDER No. 0013  
FIN. L-1343

TITLE: NRC Follow Up to Construction Assessment Team Inspection of TVA Construction At Watts Bar Unit 1 .

DOCKET NUMBERS: 50-390 (Unit 1)

INSPECTION REPORT NUMBERS: 50-390 (90-200)

NRC PROJECT MANAGER: ROBERT B.A. LICCIARDO, NRR (301-492-1240)

NRC TEAM LEADER: FREDERICK THOMAS DANIELS, NRR (301-492-0991)

PERIOD OF PERFORMANCE: 11/26/90 TO 02/29/91

A. BACKGROUND

TVA estimates that fuel load for Watts Bar will be in the Fall of 1991, although initial construction of the plant was essentially completed in 1985. In 1985, a contractor developed and implemented an Employee Concerns Program at Watts Bar, and because of the large number of concerns raised in all areas of construction, and the subsequent difficulties in resolving those concerns, TVA delayed application for an operating license.

In 1989, TVA documented a comprehensive review of, and revisions to, the nuclear program at Watts Bar in the Watts Bar Nuclear Performance Plan (WBNPP). TVA established a Watts Bar (WBN) Task Force to evaluate previously identified problems, and an independent Watts Bar Program Team (WBPT) to perform an overall integrated evaluation of the plant design and construction. It was the WBPT's evaluation that resulted in the development and approval of the 28 corrective Action Programs (CAP's) and Special Programs (SP's) to resolve the concerns and problems identified at Watts Bar (WBN), Unit 1.

Currently, TVA has completed the identification of all significant construction deficiencies at Watts Bar, and is implementing corrective actions. The WBPT has been retained at WBN to oversee revisions to the CAP's and SP's and to monitor the implementation of the programs.

In the September/October 1989, a Construction Assessment Team Inspection was conducted by NRR/DRIS/RSIB (Inspection Report '89-200) which resulted in the issuance of a Notice of Violation (NOV) and 39 open items. In addition to the NOV and open items, there were approximately 38 additional items in draft which need some additional follow-up to ensure that commitments made by TVA have been completed.

Objectives of this inspection are to (1) assess the status of corrective actions for associated open items from the previous CAT inspection, (2) determine the status of commitments made during the previous CAT inspection, (3) close-out open items and

commitments made during the previous CAT inspection, (4) identify any significant construction deficiencies or problem areas that have not been previously identified, and (5) determine if the overall plant status and schedule are realistic, in order to provide for future NRC scheduling of activities necessary for issuance of an Operating License.

#### B. OBJECTIVE

The objective of this task order is to obtain the services of three (3) contractor specialists experienced in nuclear power plant design and construction to provide specialized technical assistance to an NRC inspection team established to perform a Follow Up to the earlier Construction Assessment Team (CAT) Inspection of TVA Construction At Watts Bar Unit 1.

#### C. WORK REQUIREMENTS

The Contractor shall provide the services of three (3) specialists experienced in nuclear power plant design and construction with special expertise separately in the fields of Mechanical Engineering, Electrical Engineering and Instrumentation and Control, and Design changes and corrective actions in general, to provide specialized technical assistance to an NRC inspection team established to perform a follow Up to the earlier Construction Assessment Team (CAT) Inspection of TVA Construction At Watts Bar Unit 1.

The overall scope of the team inspection is to determine the status of , and close where appropriate , the open items identified during the previous CAT inspection reported under Inspection Report 50-390/89-200. This covers the areas of Civil and Structural, Electrical and Instrumentation and Control, Welding and Non-destructive Examination, Mechanical components and systems, Materials Traceability and Procurement, and Design Change and Corrective Actions. In addition, a further attempt will be made to determine if the TVA published construction completion schedule is accurate.

All team members will become familiar with those TVA corrective action programs (CAPs) that have relevance to all areas of the inspection, as well as the CAPs with their areas. These general programs include:

- QA records CAP
- Vendor information CAP
- Q-list CAP
- Design baseline and verification program CAP

The following is specific information that relates to the specialist expertise required from the contractors:

Electrical and I&C: - TVA has initiated the following CAPs and special programs (SP) in this area:

- Cable issues CAP

Cable tray and tray supports CAP  
Electrical issues CAP  
Instrument lines CAP  
Electrical conduit and conduit support CAP  
Master fuse list SP  
Environmental Qualification SP

Mechanical:- TVA has initiated the following CAPs and special programs (SPs) in this area;

Hanger analyses and update program (HAAUP) CAP  
Equipment seismic qualification CAP  
HVAC duct and duct supports CAP  
Heat code traceability CAP (also affects welding and Material traceability disciplines)  
Protective coatings (containment cooling) SP  
Mechanical equipment qualification SP

Design Change and Corrective Actions - TVA has initiated the following CAPs and special programs (SP) in this area:

Use-as-is CAQs ( conditions adverse to quality) SP

Information relating to other disciplines to be provided by the NRC is as follows:

Welding and NDE:-TVA has initiated the following CAPs and special programs (SP) in this area:

Welding CAP  
Heat code traceability CAP (also affects mechanical and material traceability disciplines)

Material Traceability and Procurement TVA had initiated the following CAPs and special programs (SP) in this area:

Replacement items program (piece parts) CAP  
Heat code traceability CAP (also affects mechanical and welding disciplines)

Performance of the Work under this contract shall be subject to the technical direction of the NRR Team Leader which is defined to include the following:

Technical direction to the contractor which shifts work emphasis between areas of work or tasks , fills in details or otherwise serves to accomplish the contractual statement of work.

Provides to the contractor, drawings, specifications or technical portions of the work description.

Review, and approval of technical information and reports to be delivered to the NRC under this contract.

This technical direction shall remain within the generalized requirements of the Statement Of Work of which this Clause forms a part.

The Watts Bar Unit 1 plant is located about 50 miles south-west from Knoxville or 50 miles north-east from Chattanooga, in Rhea County, Tennessee.

D. SCHEDULE OF ACTIVITIES FOR WORK, MEETINGS AND TRAVEL

TASK A October 25, 1990- Team Leader only, conducts Pre-inspection Meeting with Licensee

Team Leader only meets with licensee and Region II management onsite to establish the CAT Follow-up inspection protocol, including an overview of the status of the open items from the previous CAT inspection in 1989. Contractors are not required at this time.

TASK B.1 December 3-7, 1990-Preparation

Two contractors will travel to the Watts Bar Site and meet the NRC team leader and team at the NRC Residents office on Monday, December 3, 1990 at 2.00 pm.. Detailed inspection plans will be developed from the material received from the licensee concerning the open items and commitments made during the previous CAT Inspection in 1989. Team members will familiarize themselves with the activities in progress to further aid in their follow-up and possible closure of the open items and commitments. Pertinent documents will be obtained for further review during the period between this preparation week and the inspection. After a total of 5 days at the site contractors shall depart site for their Home Office on the afternoon of December 07.

TASK B.2 December 7-11

One remaining contractor will arrive at Watts Bar by 9.00 a.m. on December 07, and meet with the team leader to commence and perform the tasks described under Task B.1. over a period of 3 days at the site and 2 days at Home Office.

TASK B.3 December 10 1990 through January 18 1991--Preparation

During this extended period, Contractors, at their Home Office, will continue Preparation activities for a maximum working period of 40 hrs.

TASK C. January 22 through February 1, 1991--CAT Follow Up Inspection

January 22: Specialists travel to the site and report to the NRC Resident's Site office ready for an entrance meeting with the the licensee scheduled for 2.00 pm: following which for a total stay of 5 days a CAT follow up inspection will

be conducted. The specialists will receive technical direction from the NRC Team Leader. A pre-exit meeting will be conducted the afternoon of January 31, before the exit meeting on Friday February 1, and will be attended by regional and headquarters management. Team members are to make presentations of all significant findings. Team members should have discussed all concerns with licensee contacts during the inspection so as to prevent any surprises at the exit meeting.

This onsite activity will conclude with an exit meeting with the licensee on the morning of Friday February 1, and contractors will return to home office on early afternoon of the same day.

TASK D1. February 04 through February 08 1991--Preparation of Report Inputs

At home office, commencing February 4 and continuing through to February 8, over a total period of 5 days, contractors prepare individual final inspection reports to be sent by expedited delivery to reach the Team Leader by no later than 10.00 am Monday February 11.

TASK D2. February 11 through February 15 1991

At home office, over a total working period of 24 hrs., answer requests for clarification from team leader during his preparation of the Final NRC Inspection Report. Contractors also prepare and submit Final Report in accordance with Contract Sections F.3.1(e) and F1.3.1(f), for delivery by no later than Feb. 15 1991.

E REPORTING REQUIREMENTS

Technical Reports:

During the course of Tasks B1 and B2 (as appropriate) or at their completion, the contractor specialists shall provide input to the detailed inspection plan in a format to be provided by the NRC Team Leader as specified in Section F.3.1(a) of the basic contract.

During the course of the on-site inspections, and especially Task C, the contractor specialists shall provide daily reports in a format and scope to be provided by the NRC Team Leader, as specified in Section F.3.1.(b) of the basic contract.

At the completion of Task C, prior to the inspection team's exit meeting with the licensee, the contractor specialists shall provide a draft of the inspection report that documents the contractor's inspection activities, efforts and findings, as specified in Sections F.3.1(c) and F.3.1(d) of

the basic contract. The format and scope of this input shall be as provided by the Team leader.

For the completion of Task D.1, the contractor specialists shall submit input for the final inspection report to the Team Leader. The report will follow the basic format set forth in the USNRC Inspection And Enforcement Manual Chapter (MC) 2920-07-03. It will consist of major sections for each inspection discipline and a cover letter and an executive summary. The team leader will provide a sample report for each team member as an example of the format that the team is to use. Team members will be provided with a copy of " Report Writing and Inspection Guidance for Contractors Assisting RSIB" which will provide information on writing style, software compatibility, and report content.

For the completion of Task D.2, the contractor shall prepare and deliver the final reports of Task D.1 within the overall requirements of Sections F.3.1(e) and F.3.1(f) of the basic contract.

#### Monthly Reports:

The contractor shall provide monthly progress reports as specified in Section F.3.2 of the basic contract.

#### F. ESTIMATED LEVEL OF EFFORT

The total level of Work effort by the contractors is estimated at 40 days at the plant site, 32 days and 72 hrs. at home office, and 0 additional days in travel.

Management and related support is estimated at 30 hrs.

#### G. PERIOD OF PERFORMANCE: 11/19/90 TO 02/29/91

#### H. SCHEDULE: See Item D. above.

#### I. APPLICABLE SPECIAL PROVISIONS

The work specified in this statement of work is license fee recoverable. Licensee fee recovery information shall be included in the monthly progress reports as specified in Section F.3.2.3 of the basic contract.

The subcontractor specialists shall coordinate travel arrangements with the NRC Team Leader.

#### J. NRC FURNISHED MATERIALS

Documents and other materials required to prepare for the inspection will be provided by the NRC Team Leader. Other documents and materials required to perform the inspection will be provided at the plant site.

Documents to be provided include :



1. NRC Manual Chapter 2920, Construction Appraisal Team Inspection Program.
2. Inspection Findings and Strengths and Weaknesses Form.
3. Report Writing and Inspection Guidance for Contractors Assisting RSIB.
4. List of Significant Documents Reviewed Form.
- 1 1989 CAT Report 50-390/89-200