

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 3
2. AMENDMENT/MODIFICATION NO. 0005	3. EFFECTIVE DATE 02/01/02	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY U.S. Army Engineer District, Wilmington 69 Darlington Avenue (28403) Post Office Box 1890 (28402-1890) Wilmington, North Carolina	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)			(X)	9A. AMENDMENT OF SOLICITATION NO. DACW54-01-B-0018
			X	9B. DATED (SEE ITEM 11) 11/19/01
				10A. MODIFICATION OF CONTRACT/ORDER NO.
				10B. DATED (SEE ITEM 11)
CODE	FACILITY CODE			

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 2 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 your 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)

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	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:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 IFB NO. DACW54-01-B-0018...121 kV Gas Circuit Breaker Installation, John H. Kerr Dam Powerhouse, Boydton, Virginia is amended as follows:

a. SECTION 00010: Delete existing Standard Form 1442 (FRONT/BACK) and Page 10 of 141 in their entirety and substitute enclosed revised pages.

b. SECTION 01100: Delete existing Table of Contents and Page 6 thru Page 10 in their entirety and substitute enclosed revised pages.

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)	
15B. CONTRACTOR/OFFEROR		16B. UNITED STATES OF AMERICA	
15C. DATE SIGNED		16C. DATE SIGNED	
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

14. DESCRIPTION OF AMENDMENT -- Cont'd

c. SECTION 01270: Delete existing Page 6 in its entirety and substitute enclosed revised page.

d. SECTION 10160: Delete existing Table of Contents Page 4 and Page 42 thru Page 43 in their entirety and substitute enclosed revised pages.

NOTE:

Text that is added or revised by this amendment is replaced in its entirety and/or underlined and printed in bold and/or stamped appropriately.

The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not underlined with bold text.

e. QUESTIONS AND ANSWERS. For information purposes...compiled responses to all the RFI's received to date.

f. DRAWINGS.

PEN AND INK CHANGES.

Drawing E84

Add note :

"7. THE CONTRACTOR SHALL REMOVE CHAIN LINK FENCING AROUND POTHEAD STRUCTURE AND TRANSFORMER SURGE ARRESTOR IN BAYS 1, 3, 5, 7, 9 AND 13."

Drawing E84

Delete fence lines around pothead structure and transformer surge arrestor in bays 1, 3, 5, 7, 9 and 13.

Drawing E89, Section D - D

A Doble Test Terminal is shown installed at the top of the GF surge arrestor, but not identified. Add label:

"aaf (4 HOLE-TO-4 HOLE) WITH A aad (FLAT-TO-500 KCMIL CABLE) ON TOP OF THAT FITTING."

Drawing E90

-Detail A:

Doble Test Terminal on top of surge arrestor identified as "aaa", change to "aaf".

-Detail B:

Fitting between disconnect switch and 2-1/2" bus labeled "aac", change to "ysb".

Add fitting between 2-1/2" bus and flex fitting, and label as "ysb".

Change flex fitting between ysb and aaj from "aaa" to "xgc".

Detail E:

Change fitting "aac" to "ysb".

Add Note

"THE CONNECTION BETWEEN THE V-BREAK DISCONNECT SWITCH AND EXISTING 2-1/2" HORIZONTAL BUS TUBING SHALL BE As Follows: THE DISCONNECT CONNECTS TO "xgc" (FLEX CONNECTION), CONNECTED TO "ysb" (TERMINAL LUG), WHICH IS CONNECTED TO THE 2-1/2" BUS."

Drawing E91 (material list)

-To the descriptions for aah and aaj add the following "GOVERNMENT FURNISHED".

Add new item to list:

"xgc Flexible connector, copper braid, 2000 Ampere capacity, 4-Hole Ferrules."

Drawing E95

-Section A-A;

Change Doble Terminal "aag" to "aah".

Encls
As stated

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW54-01-B-0018	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 19-Nov-2001	PAGE OF PAGES 1 OF 141
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W81LJ8-1192-9761	6. PROJECT NO.
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7. ISSUED BY USAED, WILMINGTON-(910)251-4116 ATTN: JOHN B. ROBERTS, II 69 DARLINGTON AVE(28403) PO BOX 1890 WILMINGTON NC 28402-1890 TEL:910-251-4116 FAX: 910-251-4454	CODE K7P0000	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> See Item 7 TEL: FAX:	CODE
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9. FOR INFORMATION CALL:	A. NAME JOHN B. ROBERTS, II	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> 910-251-4116
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SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

SPECIFICATIONS FOR REMOVAL AND INSTALLATION OF POWERHOUSE SWITCHYARD CIRCUIT BREAKERS [121 kV Gas Circuit Breaker Installation], AT JOHN H. KERR DAM POWERHOUSE, BOYDTON, VIRGINIA.

Estimated Cost Range of this Project is \$1,000,000 to \$5,000,000.

THIS IS AN UNRESTRICTED SOLICITATION.

NOTE 1: Return Section 00600, entitled "Representations & Certifications" with Bid Submittal.

NOTE 2: Verbal or written requests for information must be directed to the person listed in Block 9 above. Inquiries and requests that are directed to any other person may not be relayed to the proper person and, therefore, may not be answered. See 52.000-4001 in Section 00100.

NOTE 3: Due to increased security, please allow for delays of approximately 45 minutes, for persons and materials entering the District Headquarters Building.

11. The Contractor shall begin performance within 10 calendar days and complete it within 360 calendar days after receiving award, notice to proceed. This performance period is mandatory, negotiable. (See _____.)

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 10
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 2 copies to perform the work required are due at the place specified in Item 8 by 14:00:00 (hour) local time 2/14/02 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee is, is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*

15. TELEPHONE NO. *(Include area code)*

16. REMITTANCE ADDRESS *(Include only if different than Item 14)*

See Item 14

CODE

FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS

SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.

DATE

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN
OFFER *(Type or print)*

20B. SIGNATURE

20C. OFFER DATE

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

SEE SCHEDULE

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN
(4 copies unless otherwise specified)

ITEM

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO

10 U.S.C. 2304(c)

41 U.S.C. 253(c)

26. ADMINISTERED BY CODE

27. PAYMENT WILL BE MADE BY CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

29. AWARD *(Contractor is not required to sign this document.)*

Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*

31A. NAME OF CONTRACTING OFFICER *(Type or print)*

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA
BY

31C. AWARD DATE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0022	Remove Existing Surge Arrestors; Transmission Line - 6	3.00	Each		
FFP - PURCHASE REQUEST NUMBER W81LJ8-1192-9761					

NET AMT _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0023	Install Government - Furnished Surge Arrestors, Transmission Lines 1 - 6	18.00	Each		
FFP - PURCHASE REQUEST NUMBER W81LJ8-1192-9761					

NET AMT _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0024	Remove Existing Synchronizer, Install Two New Synchronizers. Provide Training for Project Personnel	2.00	Each		
FFP - PURCHASE REQUEST NUMBER W81LJ8-1192-9761					

NET AMT _____

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01100

SUPPLEMENTARY SPECIAL CONTRACT REQUIREMENTS

PART 1 GENERAL

- 1.1 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
- 1.2 PERFORMANCE AND PAYMENT BONDS
- 1.3 WATER CONSERVATION
- 1.4 BULLETIN BOARD
- 1.5 RETAINAGE FOR UNTIMELY SUBMISSION OF SUBCONTRACTING REPORTS
- 1.6 SHOP DRAWINGS AND MATERIALS SUBMITTAL
- 1.7 SAMPLING, CERTIFICATES, AND TESTING
- 1.8 CERTIFICATES OF COMPLIANCE
- 1.9 **DELETED**
- 1.10 MINIMUM INSURANCE REQUIREMENTS
- 1.11 SAFETY REQUIREMENTS
- 1.12 ACCIDENT REPORTING AND RECORD KEEPING
- 1.13 REQUIRED CONSTRUCTION MEETINGS
- 1.14 "AS-BUILT" RECORD DRAWINGS
- 1.15 FINISH MATERIAL SUBMITTALS
- 1.16 ASBESTOS PERMIT AND NOTIFICATION
- 1.17 IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY
- 1.18 WORK IN QUARANTINED AREA
- 1.19 IDENTIFICATION OF EMPLOYEES
- 1.20 PUBLIC CONVENIENCE AND SAFETY
- 1.21 MAINTENANCE DURING CONSTRUCTION
- 1.22 PARTNERING
- 1.23 LOAD RESTRICTIONS
- 1.24 PROTECTION OF EXISTING FACILITIES
- 1.25 PLANT LAYOUT DRAWINGS
- 1.26 ASBESTOS - (Occupational Health and Environment)
- 1.27 COORDINATION WITH OTHER CONTRACTORS
- 1.28 EQUIPMENT TESTING AND INSTRUCTION
- 1.29 SAFETY PERFORMANCE SIGN
- 1.30 CONTRACT DRAWINGS AND SPECIFICATIONS
- 1.31 RATES OF WAGES
- 1.32 LIST OF ATTACHMENTS

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

made at Government laboratories will be deducted from the total amount due the Contractor, at actual cost to the Government, unless otherwise specified.

1.8 CERTIFICATES OF COMPLIANCE
(1969 MAY OCE)

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in 3 copies. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

1.9 ~~DELETED~~ CONTRACTOR PREPARED NETWORK ANALYSIS SYSTEM
(APR 1968) ~~DELETED~~

~~DELETED~~ The progress chart to be prepared by the Contractor pursuant to the Contract Clause entitled "SCHEDULES FOR CONSTRUCTION CONTRACTS" shall consist of a network analysis system as described below. In preparing this system the scheduling of construction is the responsibility of the Contractor. The requirement for the system is included to assure adequate planning and execution of the work and to assist the Contracting Officer in appraising the reasonableness of the proposed schedule and evaluating progress of the work. ~~DELETED~~

(a) An example of one of the numerous acceptable types of network and analysis systems is shown in Appendix I of Corps of Engineers Regulation ER 1-1-11 entitled "Network Analysis System," single copies of which are available to bona fide bidders on request. Other systems which are designed to serve the same purpose and employ the same basic principles as are illustrated in Appendix I will be accepted subject to the approval of the Contracting Officer. ~~DELETED~~

(b) The system shall consist of diagrams and accompanying mathematical analyses. The diagrams shall show elements of the project in detail and the entire project in summary. ~~DELETED~~

(1) Diagrams shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram will be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities. ~~DELETED~~

(2) Detailed network activities shown on a detailed or sub-network diagram shall include, in addition to construction activities, the submittal and approval of samples of materials and shop drawings, the procurement of critical materials and equipment, fabrication of special material and equipment and their installation and testing. All activities ~~DELETED~~

of the Government that affect progress, and contract required dates for completion of all or parts of the work will be shown. The detail of information shall be such that duration times of activities will range from three to thirty (30) days with not over two percent (2%) of the activities exceeding these limits. The activities which comprise the following separate buildings and features shall be separately identifiable by coding or use of sub-networks or both:

Building or feature
Minimum number of activities

The selection and number of activities shall be subject to the Contracting Officer's approval. Detailed networks, when summary networks are also furnished, need not be time scaled but shall be drafted to show a continuous flow from left to right with no arrows from right to left. The following information shall be shown on the diagrams for each activity: preceding and following event numbers, description of the activity, cost, and activity duration.

(3) Summary Network. If the project is of such size that the entire network cannot be readily shown on a single sheet, a summary network diagram shall be provided. The summary network diagram shall consist of a minimum of fifty activities and a maximum of one hundred and fifty activities, and shall be based on and supported by detailed diagrams. Related activities shall be grouped on the network. The critical path shall be plotted generally along the center of the sheet with channels with increasing float placed towards the top or bottom. The summary network shall be time scaled using units of approximately one-half inch equals one week or other suitable scale approved by the Contracting Officer. Weekends and holidays shall be indicated. Where slack exists, the activities shall be shown at the time when they are scheduled to be accomplished.

(4) The mathematical analysis of the network diagram shall include a tabulation of each activity shown on the detailed network diagrams. The following information will be furnished as a minimum for each activity:

- (i) preceding and following event numbers (numbers shall be selected and assigned so as to permit identification of the activities with bid items);
- (ii) activity description;
- (iii) estimated duration of activities (the best estimate available at time of computation);
- (iv) earliest start date (by calendar date);
- (v) earliest finish date (by calendar date);
- (vi) scheduled or actual start date (by calendar date);
- (vii) scheduled or actual finish date (by calendar date);
- (viii) latest start date (by calendar date);

- (ix) latest finish date (by calendar date);
- (x) slack or float;
- (xi) monetary value of activity;
- (xii) responsibility for activity (Prime Contractor, subcontractors, suppliers, Government, etc.);
- (xiii) manpower required;
- (xiv) percentage of activity completed;
- (xv) Contractor's earnings based on portion of activity completed; and
- (xvi) bid item of which activity is a part.

(5) The program or means used in making the mathematical computation shall be capable of compiling the total value of completed and partially completed activities and subtotals from separate buildings or feature listed in paragraph (4)(2).

(6) In addition to the tabulation of activities, the computation will include the following data:

- (i) identification of activities which are planned to be expedited by use of overtime or double shifts to be worked including Saturdays, Sundays and holidays;
- (ii) on-site manpower loading schedule;
- (iii) a description of the major items of construction equipment planned for operations of the project. (The description shall include the type, number of units and unit capacities. A schedule showing proposed time equipment will be on the job keyed to activities on which equipment will be used shall be provided); and
- (iv) where portions of the work are to be paid by unit costs, the estimated number of units in an activity which was used in developing the total activity cost.

(7) The analysis shall list the activities in sorts or groups as follows:

- (i) by the preceding event number from lowest to highest and then in the order of the following event number;
- (ii) by the amount of slack, then in order of preceding event number;
- (iii) by responsibility in order of earliest allowable start dates; and
- (iv) in order of latest allowable start dates, then in order of preceding event numbers, and then in order of succeeding event

numbers.

(c) Submission and approval of the system shall be as follows:

(1) A preliminary network defining the Contractor's planned operations during the next sixty (60) calendar days after receipt of Notice to Proceed will be submitted within ten (10) days. The Contractor's general approach for the balance of the project shall be indicated. Cost of activities expected to be completed or partially completed before submission and approval of the whole schedule should be included.

(2) The complete network analysis consisting of the detailed network mathematical analysis (on-site manpower loading schedule, equipment schedule) and network diagrams shall be submitted within forty (40) calendar days after receipt of Notice to Proceed.

(d) The Contractor shall participate in a review and evaluation of the proposed network diagrams and analysis by the Contracting Officer. Any revisions necessary as a result of this review shall be resubmitted for approval of the Contracting Officer within ten (10) calendar days after the conference. The approved schedule shall then be the schedule to be used by the Contractor for planning, organizing and directing the work and for reporting progress. If the Contractor thereafter desires to make changes in his method of operating and scheduling he shall notify the Contracting Officer in writing stating the reasons for the change. If the Contracting Officer considers these changes to be of a major nature he may require the Contractor to revise and submit for approval, without additional cost to the Government, all or the affected portion of the detailed diagrams and mathematical analysis and the summary diagram to show the effect on the entire project. A change may be considered of a major nature if the time estimated to be required or actually used for an activity or the logic of sequence of activities is varied from the original plan to a degree that there is a reasonable doubt as to the effect on the contract completion date or dates. Changes which affect activities with adequate slack time shall be considered as minor changes, except that an accumulation of minor changes may be considered a major change when their cumulative effect might affect the contract completion date.

(e) The Contractor shall submit at intervals of fifteen (15) calendar days a report of the actual construction progress by updating the mathematical analyses. Revisions causing changes in the detailed network shall be noted on the summary network, or a revised issue of affected portions of the detailed network furnished. The summary network shall be revised as necessary for the sake of clarity. However, only the initial submission or completed revisions need be time scaled. Subsequent minor revisions need not be time scaled.

(f) The report shall show the activities or portions of activities completed during the reporting period and their total value as basis for the Contractor's periodic request for payment. Payment made pursuant to the Contract Clause entitled "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS" will be based on the total value of such activities completed or partially completed after verification by the Contracting Officer. The report will state the percentage of the work actually completed and scheduled as of the report date and the progress along the critical path in terms of days ahead or behind the allowable dates. If the project is

behind schedule, progress along other paths with negative slack shall also be reported. The Contractor shall also submit a narrative report with the updated analysis which shall include but not be limited to a description of the problem areas, current and anticipated, delaying factors and their impact, and an explanation of corrective actions taken or proposed.

(g) Sheet size of diagrams shall be 30 by 42 inches. Each updated copy shall show a date of the latest revision.

(h) Initial submittal and complete revisions shall be submitted in six (6) copies.

(i) Periodic reports shall be submitted in four (4) copies.

1.10 MINIMUM INSURANCE REQUIREMENTS

(a) In accordance with the Contract Clause entitled "INSURANCE -- WORK ON A GOVERNMENT INSTALLATION," the Contractor shall procure and maintain during the entire performance period under this contract at least the following kinds and minimum amounts of insurance:

(1) Workers' Compensation and Employers' Liability. In the amount required by law of the State in which work is to be performed under this contract or at least \$100,000.

(2) General Liability. Bodily injury liability coverage written on the comprehensive form of policy of at least \$500,000 per occurrence.

(3) Automobile Liability. At least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage, or a combined single limit of \$500,000.

(b) The Contractor agrees to insert the substance of this clause, including this paragraph, in all subcontracts hereunder.

(c) The Contractor shall submit proof of insurance coverage five (5) days prior to the preconstruction conference in accordance with paragraph, REQUIRED CONSTRUCTION MEETINGS.

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall certify to the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that

Bid Item 0019; Remove and Dispose of Line Traps

Payment for Bid Item 0019 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to remove and dispose of three Line Traps, one from Line 5 (one on phase A) and two line traps on line six (6) (phases B and C) as shown on the contract drawings.

Bid Item 0020; Furnish and Install new Line Trap

Payment for Bid Item 0020 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to furnish and install a new line trap on phase A of transmission line five (5) as shown on the contract drawings.

Bid Item 0021; Furnish and Install Cabling

Payment for Bid Item 0021 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to furnish and install required interconnect cabling between the control, relaying and instrument boards in the powerhouse to provide a fully functional system.

Bid Item 0022; Remove and Dispose of Existing Surge Arrestors

Payment for Bid Item 0022 will be made at the price bid for each unit.. Price and payment shall include all labor, equipment and materials required to remove and dispose of surge arrestors from transmission line six (6) as shown on the contract drawings.

Bid Item 0023; Install Government Furnished Surge Arrestors

Payment for Bid Item 0023 will be made at the price bid for each unit. Price and payment shall include all labor, equipment and materials required to install eighteen (18) government furnished surge arrestors on six (6) transmission lines as shown on the contract drawings.

Bid Item 0024; Remove Existing Synchronizer, Install new Synchronizer

Payment for Bid Item 0024 will be made at the price bid for each unit. Price and payment shall include all labor, equipment and materials required to remove one (1) existing synchronizer and **provide two (2) new synchronizers and install two (2) new synchronizers.** Provide training for project personnel.

Bid Item 0025; NOT USED.

Bid Item 0026; Modify seven (7) Existing Pothead Supports

Payment for Bid Item 0026 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to install a maintenance platform on seven (7) pothead support structures in the switchyard as shown on the contract drawings.

Bid Item 0027; Modify Existing Benchboard Controls

- 3.11.2 Kerr Switchyard Grounding System
- 3.12 ELECTRICAL CONNECTIONS
 - 3.12.1 Preparation for Operation
- 3.13 PAINTING OF ELECTRICAL EQUIPMENT
- 3.14 PAINTING OF SWITCHYARD STRUCTURE
- 3.15 SEQUENCE OF WORK IN SWITCHYARD
- 3.16 DOBLE TEST TERMINALS
- 3.17 GAS CIRCUIT BREAKER ANCHOR BOLTS

powerhouse. During Stage II, the corresponding transformer differential CT wiring from the main breaker will need to be routed and connected to the auxiliary breaker CT's. The transformer differential relays will have to be reprogrammed for the new CT ratios before the auxiliary breakers are put in service.

The line protective relaying CT wiring from the line auxiliary breakers will need to be installed from the breakers to the relay board in the powerhouse. During Stage II, the corresponding line protective relaying, and line metering CT's, wiring from the main breaker will need to be rerouted and connected to the auxiliary breaker CT's.

The auxiliary bus differential CT wiring from the transformer and line auxiliary breakers will need to be installed from the breakers to the new junction boxes in the cable tunnel and to the new auxiliary bus differential relays at the instrument board in the powerhouse.

All auxiliary breaker "b" contacts in the unit control circuits will have to be jumpered out during replacement of the transformer auxiliary breakers.

The automatic synchronizer control relays Z/A1 through Z/A7 and unit synchronizing bus selector switches 43MA/U1 through 43MA/U7 will have to be installed and wired into existing unit control and synchronizer circuits before transformer auxiliary breakers can be controlled. Install new synchronizers in this same time period

Install auxiliary GCB control switches, synchronizing switches, carrier relay cutoff switch, reclosing on-off control switch and permissive trip pushbuttons on the benchboard. Install main bus tiebreaker control switch on the benchboard during phase 2.

Care and coordination will have to be exercised for all work required in the relay, instrument and benchboards for each individual breaker control circuit.

A complete successful operational test of the auxiliary side of the switchyard must be performed before proceeding to Stage 2 of the work.

PHASE 2

Same situation for the main bus side of the switchyard between disconnect switches No. 13, 23, through 133 and the main bus.

A complete successful operational test of the main side of the switchyard must be performed before proceeding to Stage 3 of the work.

PHASE 3

When coordination works out best, each unit and line between disconnects on the bus side of the breakers (for example bay one disconnects 11 and 16) can be used to isolate the area in the middle of the switchyard. This will allow the contractor to modify each pothead structure and relocate existing surge arrestors when each unit is out of service, and to replace the line PT's and phase-A CC, remove CT's and install new government furnished surge arrestors when each line is taken out of service.

Summary:

Isolating the entire auxiliary or main bus at one time and operating on the other bus, allows the contractor sufficient time to complete work in each area without being constrained by the limited time a line may be taken out of service. In Stage III, the contractor will be able to focus efforts on a smaller area of the switchyard and complete work in those areas in a timely manner. A minimum of three (3) weeks prior of work performed the Contractor shall submit to the COR a detailed work schedule in a spreadsheet format detailing the work to be performed and in what section of the switchyard. Also in Stage III, a specific unit or line may be skipped if necessary and completed at a later date.

3.16 DOBLE TEST TERMINALS

Contractor shall provide and install Doble Test Terminals for the following equipment as shown on the contract drawings:

-Existing transformer cable potheads

- Existing transformer cable surge arrestors
- Government furnished line surge arrestors

Doble Test Terminals shall be LAPP, 2000 Ampere or approved equal and connection fittings shall be verified to match existing and new equipment.

Note: The government furnished 121 kV Circuit breakers are being supplied with Doble Test Terminals.

3.17 GAS CIRCUIT BREAKER ANCHOR BOLTS

Contractor shall supply and install anchor bolts to secure the breakers to the concrete pads. Leveling hardware shall be used as needed to level the units. Anchor lengths shall be as needed to provide the required embedment, level the unit and allow for exposure of 3" of threads after nuts are tightened. Bolts shall be 1" min. dia.

Where GCB's are installed on existing concrete pads, drill and epoxy stainless steel anchor bolts into the pad. Embedment depth shall be a minimum of 8 1/4". Anchors shall be installed in accordance with the anchor bolt manufacturer's written recommendations.

For new concrete pads, Anchors shall be hot-dip galvanized A-36 steel and shall be swedged, or bolt head and washer embedded, to provide bond with concrete. Embedment shall be 9" minimum.

QUESTIONS AND ANSWERS

(Added by Amendment No. 0005)

will drastically affect the bid price, especially in such areas as digging up and repairing the existing ground grid, the quantity of asbestos cable trays to be encapsulated, the amount of equipment to be changed out and the quantity of structure to be painted, etc. Can the Government provide the missing reference drawings?

The reference drawings indicate only 9 bays. bays 10 through 13 were added later but are similar in layout to bays 1 through 9. The contract drawings do indicate 13 bays. This information should be adequate for quantity take-offs.

Will add note to drawing index to clarify.