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~~RELATED CORRESPONDENCE~~

8/19/85

DOCKETED
USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'85 AUG 26 P12:19

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

TEXAS UTILITIES ELECTRIC
COMPANY, et al.

(Comanche Peak Steam Electric
Station, Units 1 and 2)

Docket Nos. 50-445 ^{OL}
and 50-446

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

(Application for an
Operating License)

CASE'S OFFER OF PROOF IN SUPPORT OF
CASE'S 8/14/85 MOTION FOR IMMEDIATE BOARD ORDER
FOR APPLICANTS TO PRESERVE EVIDENCE

In CASE's 8/14/85 Motion for Immediate Board Order for Applicants to Preserve Evidence, CASE moved that the Licensing Board:

- (1) Order Applicants to preserve the original large-bore pipe supports in place and in a condition which would allow complete verification and testing;
- (2) Order immediate responses from Applicants and the NRC Staff to CASE's instant pleading; and
- (3) Make an expedited decision on CASE's Motion.

CASE now has documented evidence to support its Motion. Further, because of this new documentation, CASE now moves that the Board extend its Order to include cable tray supports, conduit supports, and any other equipment or components which might logically be expected to be included in Applicants' latest (CPRT) or other reinspection efforts.

On 8/14/85, CASE received from Applicants on discovery copies of contracts "between Texas Utilities Generating Company and organizations

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performing services for the CPRT" /1/. It is those contracts which constitute CASE's offer of proof.

STONE AND WEBSTER ENGINEERING CORPORATION

Stone and Webster is the organization which will be evaluating and possibly destroying and redesigning pipe supports as part of the CPRT effort. In our 8/14/85 Motion, CASE cited transcript pages from a recent meeting of the NRC Staff and Applicants, as well as the CPRT Plan, as a basis for our concerns.

We now add the following, excerpted from Stone and Webster's contracts, to illustrate and support our concerns:

STONE AND WEBSTER ENGINEERING CORPORATION
P. O. CPF-12658-S -- Original Contract dated 7/22/85 (copy of which is attached to CASE's 8/19/85 Offer of Proof of Lack of Independence of Applicants' Latest Plan (CPRT Plan), being sent in this same mailing)

It is important to note that most of the wording in the original contract was deleted and revised in the 8/12/85 Supplement to much more general language; however, the language of the Supplement could still be construed to allow the same procedures and results (removing, redesigning, and replacing pipe supports in question) as the original contract. Further, there has been no indication of a change in plans (of which CASE is aware) since the 6/14/85 NRC Staff/Applicants meeting /2/. We are therefore including wording from both the original contract and the Supplement.

/1/ Copies of the 8/13/85 cover letter from Applicants to CASE were sent to the Service Lists in both Dockets; however, only CASE (in both Dockets) and the NRC Staff are shown to have also received the attachments.

/2/ See CASE's 8/14/85 Motion for Immediate Board Order for Applicants to Preserve Evidence, page 1, last paragraph, referencing 6/14/85 Transcript of NRC Staff/Applicants meeting, Volume II, Afternoon Session, pages 182/6-189/10, 193/4-195/2, 203/13-204/25, 250/25-251/2, especially 183/3-14, 185/18-25, 194/3-195/2, 203/16-21, 250/25-251/2.

(All emphases are added, other than titles of sections.)

" . . . for technical engineering services in support of . . .
(TUGCO)['s] . . . (CPSES) project . . . "

The following wording was changed in the Supplement.

" . . . to perform pipe stress and pipe support qualifications . . . to
address technical concerns on the piping and pipe support designs . . .

"Upon initiation . . . the work shall proceed without hold points for
approval by outside parties. If new technical issues are raised . . .
SWEC shall address them in parallel with the requalification production
effort.

"Complete implementation . . . shall demonstrate the technical adequacy
of the piping and pipe support designs . . .

" . . . shall be overviewed by TUGCO project management assisted by
Robert L. Cloud Associates, Gibbs & Hill, Inc., and . . . (CPRT). This
overview will not relieve SWEC of the responsibility for fully
qualifying the piping and supports in their final modified condition.

" . . . qualify all ASME Class 2 and 3 piping systems and supports . . .

"Site activities . . . shall be in strict compliance with the SWEC QA
program or site engineering procedures/instructions prepared to
accommodate site activities.

"The scope of the piping and support qualification program shall
include:

- "- 100% of all ASME Class 2 and 3 piping larger than 2 inch. (Large
bore)
- "- 100% of all large bore supports including . . . Class 1 systems.
- "- Reanalysis of small bore (2" and under) piping and supports on a
sampling basis . . .
- "- Verification of all structural and system inputs to ensure
complete integrity of the piping and support process.
- "- Verification of the validity of data provided . . .

"The above program shall adequately address concerns raised including
those by the NRC, Cygna, and CASE.

"OUTLINE OF ACTION PLAN

". . . 6. Reanalysis of piping systems and reevaluation of pipe supports designs. Any modifications required to supports shall be covered in the repair replacement activity of ASME Section XI. . .

"ACTION PLAN DETAILS

"1. Resolution of special technical concerns

". . . b.) Technical concerns which must be addressed before the initiation . . .

". . . special issues which will have a significant effect on the overall pipe stress analysis effort and are constraints to finalizing the piping reanalysis. Examples . . . are pipe support stiffness, stability of pipe supports and the effects of U-bolts on local stresses. SWEC shall establish special task force(s) . . . [who] shall review all past project efforts expended for the resolution of these technical concerns and recommend further actions to close out the resolution effort. The review and recommendations shall include . . . physical removal of the pipe supports . . . As an option, some of the supports in question may be identified before stress reanalysis and an attempt made to delete them from the computer model if acceptable by engineering judgment . . . Upon successful completion of the reanalysis, such supports may be physically removed or modified . . . even though the original design may be acceptable.

"c.) Technical concerns which must be resolved before completion . . .

". . . technical concerns which specifically address the adequacy of the support designs. They generally do not have significant effect on the pipe stress analysis effort and therefore need not be a constraint to the initiation of the pipe stress reanalysis effort. However, it is anticipated that substantial technical expertise is required to resolve these concerns . . . examples . . . are: cinched U-bolts, wall to wall supports and Richmond inserts.

"2. Development of . . . pipe stress and pipe support design criteria . . .

". . . into a single Comanche Peak pipe stress and pipe support design criteria document . . . recent code cases and inquiries (e.g., code case N-411 on damping and code case 413 on minimum weld size) may be implemented if NRC approval is granted and if their implementation is considered appropriate. . .

"3. Verification of as-built . . .

". . . a sample verification . . . to ensure the validity and completeness of the physical dimensions . . . shall follow the field walkdown procedure CPPP-5 established for this project. Sample size shall meet 95/95 confidence criteria of MIL-STD 105D.

"4. Review and verification of system design input, and system fluid transients

". . . review all ASME Class 2 and 3 piping drawings to ensure that all subsystems are evaluated. . . ensure that the FSAR commitments, the proper operating modes, system pressure and temperature and the appropriate fluid transients are considered . . . An assessment shall be made for each identified fluid transient to determine its effect . . . New fluid induced forces shall be generated, if required, for the piping analysis. To the extent practicable, the effects of the various fluid transients shall be compared and enveloped to minimize the pipe stress reanalysis effort.

"5. Verification of existing pipe support design documents

". . . Acceptable calculations shall be used on a load comparison basis for the final pipe support design evaluation after completion of the pipe stress reanalysis effort.

"6. Reanalysis of piping systems and reevaluation of pipe support designs

". . . follow project procedure CPPP-6 'Pipe Stress Analysis Procedure for As-Built ASME Class 2/3 Piping Systems' and CPPP-7 'Analysis and Design Criteria for Pipe Stress and Pipe Support for ASME Class 2/3 Piping Systems.' . . . utilize the verified as-built and system design input discussed in items (3) and (4) above. New seismic response spectra consistent with the Pressure Vessel Research Committee (PVRC) recommended damping value (WRC-300 and ASME Code Case N411) may also be used. Whenever judged appropriate by the pipe stress engineer, pipe support optimization shall be performed to eliminate unnecessary snubbers and supports which are subject to the special technical concerns (e.g.,

stability) discussed in item 1b. The result . . . shall be used to evaluate the adequacy of the supports, penetrations and equipment nozzles. Valve accelerations shall be compared to their qualified level . . . new stress results shall also be evaluated for consistency with the designed postulated pipe break locations.

"Closure . . .

". . . Upon completion of the requalification effort, a report shall be prepared covering:

- "- Walkdowns
- "- Pipe Stress reanalysis
- "- Support modifications
- "- Supports eliminated
- "- Requalification effort justification"

The following was not deleted by the Supplement.

". . . Gibbs and Hill - SWEC Letter of Agreement pertaining to their activities in support of TUGCO's CPSES project is attached hereto . . . and forms an integral part of this purchase order." /3/

". . . All work shall be conducted in accordance with the QA commitments stated in Chapter 17.1 of the CPSES . . . (FSAR). . .

Contract dated 8/12/85 - Supplement No. 1 (also attached to CASE's 8/19/85 Offer of Proof of Lack of Independence of Applicants' Latest Plan (CPRT Plan), being sent in this same mailing)

". . . B. . . . to restate the 'Scope of Work' . . . and make corrections . . .

". . . 'Scope of Work, General' Section as stated on pages 1 and 2 is hereby deleted. 'Scope of Work, General' is restated as follows:

". . . shall demonstrate the technical adequacy of the piping and pipe support designs . . .

"Upon initiation . . . the work shall proceed without hold points for approval by outside parties.

/3/ This Letter of Agreement was not attached to CASE's copy of the contract, nor were any of the other attachments referenced in the various contracts.

". . . [Site] activities shall be in strict compliance with the SWEC QA program or site engineering procedures/instructions . . .

". . . shall be overviewed by TUGCO project management, . . . (CPRT), and other organizations as may be directed by TUGCO project management. . .

"C. . . . 'Scope of Work, Specific' Section as stated on pages 2 and 3 is hereby deleted . . . [and] restated as follows:

". . . qualify all ASME Class 2 and 3 piping systems and supports . . . in accordance with appropriate procedures, practices, technical techniques, and controls.

". . . shall include the following specific tasks.

"Task 1 - 100% of all ASME Class 2 and 3 piping larger than 2 inch. (Large bore)

"Task 2 - 100% of all large bore support designs for Class 1 systems.

"Task 3 - 100% of all Class 2 and 3 small bore (2" and under) piping. Unit 1 piping and supports will be qualified on a sampling basis.

"Task 4 - Verification of seismic structural models and system inputs to confirm the structural integrity of the piping and support systems. Class 1 supports in Unit 2 are included in this scope.

"Task 5 - Verification of the validity of data provided (sic - apparently should be "provided") by/to other design entities.

"Task 6 - ASLB hearing support as required by TUGCO project management.

"The above scope of work shall adequately address concerns raised by the NRC, Cygna, and CASE.

"D. . . . delete pages 3, 4, 5, 6, 7, and 8 through the section titled 'Closure of SWEC Scope of Work' in their entirety. . .

"SAFETY RELATED REQUIREMENTS

"QA/QC Requirements listed on the original purchase order and subsequent supplements remain in effect and apply to supplement No. 1"

As can be seen from the wording of the original contract (which was not changed but only generalized by the wording of the Supplement) what Applicants had in mind was for Stone and Webster (SWEC) to come in and reanalyze the pipe supports; then if they could not easily be shown to be adequately designed, SWEC would remove the presently-in-place support, redesign it, and put another one in its place. SWEC does not have to have a hold point to do any of this or wait for anyone's approval before proceeding. SWEC may also delete such troublesome items as unstable supports, cinched-down U-bolts, etc., by simply removing them from the reanalysis and never analyzing them to see if they were adequate to begin with -- if acceptable by engineering judgement. They could then physically remove or modify such supports -- even though the original design may allegedly have been acceptable.

It is also important to note that, in order to accomplish their contractual obligations, it may be (and will be, CASE believes) necessary for SWEC to utilize ASME code cases and different seismic response spectra than those to which they are currently committed in their FSAR (which will open up yet another can of worms).

Thus, Applicants have contractually charged SWEC with doing whatever must be done in order to make Applicants' designs acceptable -- but without SWEC's ever having even addressed whether or not Applicants' present designs are adequate, and without Applicants ever having to admit what everyone knows is true -- that Applicants' original designs were fatally flawed and totally unacceptable. SWEC's actions would not address the duly raised design/design QA issues in these proceedings, and would leave unanswered the

open questions regarding the adequacy of design of the pipe supports and other design issues, and leave the design of the entire plant still in question.

Further, because of the lack of independence of the CPRT effort, the results could not satisfy the Board's and CASE's concerns, but would only muddy the waters still further without resolving anything.

The preceding supports CASE's Motion to Preserve Evidence and makes it imperative that the Board move quickly to assure that SWEC's actions do not remove either the physical or documentary evidence of Applicants' past folly, so that it will be preserved in place and in a condition which would allow complete verification and testing (including, but not limited to, checking the as-built dimensions, conformance to the as-built vendor certified absolutely-positively-completed drawings, inclusion in sampling for various purposes, etc.).

EBASCO SERVICES, INC.

CASE's concerns regarding the contractualized total lack of independence of Ebasco is discussed in CASE's 8/19/85 Offer of Proof of Lack of Independence of Applicants' Latest Plan (CPRT Plan), which is being sent in the same mail with this pleading. As discussed therein, Ebasco's contract with Applicants states specifically:

"Ebasco will function in cooperation with and subject always to the direction and control of TUGCO's authorized officers or TUGCO's designated representatives, and will consult with TUGCO in advance of important decisions . . ." (Emphases added.)

Ebasco (and Dr. Robert Iotti in particular) is going to be involved in the CPRT effort, doing the "design basis activities" regarding cable tray

and conduit supports, and will identify modifications which need to be made, conduct design activities required for those modifications, and may or may not do analyses /4/.

Supplement 4 to Ebasco's contract CPF-19724, dated 7/25/85 /5/ states:

"The following tasks are added to Ebasco's scope of services:

". . . 14A. Provide on-site computer aided drafting (CADD) services (machine time only) for Unit 1 conduit support/cable tray support system. Ebasco shall provide the CADD system, trained operators, computer operators and supplies necessary to produce conduit and/or cable tray support drawings capable of being issued for fabrication and construction purposes." (Emphases added.)

From the preceding, it appears obvious that Applicants are anticipating an effort for Ebasco similar to that of Stone and Webster, wherein any presently-in-place conduit supports or cable tray supports which could not easily be shown to be adequately designed would be removed, redesigned, and replaced -- undoubtedly all without ever having made the determination as to whether or not the original design was adequate, and without Applicants ever having to admit what everyone knows is true -- that Applicants' original designs were fatally flawed and totally unacceptable. Ebasco's actions would not address the duly raised cable tray design/design QA issues raised in these proceedings during the May 1984 Cygna hearings, would leave unanswered the open questions regarding the adequacy of design of the cable tray supports and conduit supports, and leave the design of the entire plant still in question.

/4/ See Transcript of 6/14/85 NRC Staff/Applicants meeting, Volume II, Afternoon Session, page 174, line 4, through 175, line 13, and page 201, line 13, through 202, line 17.

/5/ Copies of this original contract and Supplements 1 through 4 are attached hereto. It should be noted that this is not the only Ebasco contract.

Further, because of the lack of independence of the CPRT effort, and the documented total lack of independence of Ebasco, the results could not satisfy the Board's and CASE's concerns, but would only muddy the waters still further without resolving anything.

The preceding supports CASE's Motion to Preserve Evidence and makes it imperative that the Board move quickly to assure that Ebasco's actions do not remove either the physical or documentary evidence of Applicants' past folly, so that it will be preserved in place and in a condition which would allow complete verification and testing (including, but not limited to, checking the as-built dimensions, conformance to the as-built vendor certified absolutely-positively-completed drawings, inclusion in sampling for various purposes, etc.).

CASE moves that the Board include cable tray supports, conduit supports, and any other equipment or components which might logically be expected to be included in Applicants' latest (CPRT) or other reinspection efforts.

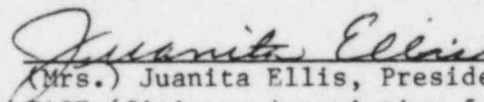
Further, CASE is of the opinion that the Board should require any response by Applicants to be in evidentiary form (rather than representations by counsel). We so move.

In conclusion:

For the reasons discussed herein and in CASE's 8/14/85 Motion for Immediate Board Order for Applicants to Preserve Evidence, CASE moves that the Board issue an Order as CASE has requested, modified as follows:

- (1) Order Applicants to preserve both physical and documentary evidence as follows: the original large and small bore pipe supports, cable tray supports, conduit supports, and any other equipment or components which might logically be expected to be included in Applicants' latest (CPRT) or other reinspection efforts;
- (2) Order that such equipment or components shall be preserved in place and in a condition which would allow complete verification and testing;
- (3) Order immediate responses from Applicants and the NRC Staff to CASE's instant pleading;
- (4) Order an immediate response from Applicants as to: exactly which equipment or components have been changed from their original condition since May 1984; when each such change was made; in what manner each has been changed; and for what reason each has been changed;
- (5) Order that Applicants respond to (4) preceding in evidentiary form (rather than representation by counsel); and
- (6) That the Board make an expedited decision on CASE's Motion and Offer of Proof.

Respectfully submitted,


(Mrs.) Juanita Ellis, President
CASE (Citizens Association for Sound
Energy)
1426 S. Polk
Dallas, Texas 75224
214/946-9446

Attachments (sent only to Board, Applicants, NRC Staff, and Docketing and Service)

Ebasco Contract: P. O. No. CPF-19724, original dated 5/11/84
Supplement No. 1 dated 10/9/84
Supplement No. 2 dated 2/1/85
Supplement No. 3 dated 3/29/85
Supplement No. 4 dated 7/25/85

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'85 AUG 26 P12:19

BEFORE THE ATOMIC SAFETY AND LICENSING BOARDOFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of	}}	
	}}	
TEXAS UTILITIES ELECTRIC	}}	Docket Nos. 50-445
COMPANY, <u>et al.</u>	}}	and 50-446
(Comanche Peak Steam Electric	}}	
Station, Units 1 and 2)	}}	

CERTIFICATE OF SERVICE

By my signature below, I hereby certify that true and correct copies of
CASE's Offer of Proof in Support of CASE's 8/14/85 Motion for Immediate Board
Order for Applicants to Preserve Evidence

have been sent to the names listed below this 19th day of August, 1985,
by: Express Mail where indicated by * and First Class Mail elsewhere.
Federal Express where indicated by **

- | | |
|--|--|
| <p>** Administrative Judge Peter B. Bloch
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4350 East/West Highway, 4th Floor
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|--|--|

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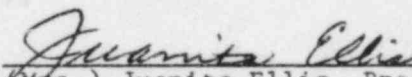
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TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 1 OF 4 DATE 5-11-84

SHIP TO TEXAS UTILITIES GENERATING COMPANY, ATTN: BROWN & ROOT, INC. c/o COMANCHE PEAK STEAM ELECTRIC STATION FM 201, GLEN ROSE, TEXAS 76043		PURCHASE ORDER	
BILL TO TEXAS UTILITIES GENERATING COMPANY P.O. BOX 1002, GLEN ROSE, TEXAS 76043		ORIGINAL NOTIFICATION	CONFIRMATION X
		F.O.B. NOT APPLICABLE	
NUMBER BELOW MUST BE SHOWN ON ALL SHIPMENTS, INVOICES AND CORRESPONDENCE	SHIP VIA NOT APPLICABLE	SHIPMENT PROMISED BY NOT APPLICABLE	TERMS NET 30 DAYS
P.O. NO. CPF-19724		REQ. NO. R 27119, 27127	ACCOUNT NO. 1-2-9230-940000-108

T
O
EBASCO SERVICES, INCORPORATED
10375 RICHMOND AVENUE
HOUSTON, TEXAS 77042
ATTN: KIM COMBS

VENDOR WILL SIGN AND RETURN CARBON
COPY OF THIS PURCHASE ORDER ACCEPT-
ING ALL TERMS AND CONDITIONS UNDER
WHICH IT IS ISSUED

PLEASE RENDER INVOICES IN
DUPLICATE

CONFIRMED TO: KIM COMBS (713)954-2611

THE TERMS AND CONDITIONS SET OUT ON THE BACK HEREOF AND ANY ATTACHMENTS HERETO ARE A PART OF THIS ORDER AND HAVE THE SAME EFFECT AS IF SET OUT ON THIS SIDE

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>THIS CONTRACT ENTERED INTO THIS 11TH DAY OF MAY, 1984 BY AND BETWEEN TEXAS UTILITIES GENERATING COMPANY (TUGCO), A TEXAS CORPORATION, WITH OFFICES IN GLEN ROSE, TEXAS AND EBASCO SERVICES, INCORPORATED (EBASCO) A NEW YORK CORPORATION AUTHORIZED TO DO BUSINESS IN THE STATE OF TEXAS WITH OFFICES IN HOUSTON, TEXAS IS ESTABLISHED TO PROVIDE TUGCO WITH VARIOUS SERVICES, TO BE DEFINED BY TUGCO, TO SUPPORT THE COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) IN GLEN ROSE, TEXAS FOR THE PERIOD OF ONE (1) YEAR. SUCH SERVICE PERIOD TO BE IN EFFECT FROM JANUARY 1, 1984 AND EXTENDING THROUGH DECEMBER 31, 1984.</p> <p>EBASCO SHALL PROVIDE FIELD SERVICE PERSONNEL AS REQUIRED BY TUGCO TO PROVIDE SERVICES FOR THE FOLLOWING:</p> <p><u>SCOPE OF SERVICES</u></p> <ol style="list-style-type: none"> 1. FIELD SUPPORT/CONSULTING FOR PROTECTIVE COATINGS. EBASCO PROPOSAL ETTC-5 DATED NOVEMBER 16, 1983, ATTACHMENT E. 2. CONSULTING FOR ASLB ACTIVITIES SPECIFICALLY CONCERNING THE WALSH/DOYLE ALLEGATIONS. 		

Direct Payment Exemption Certificate Permit Number 3-00076-1916-3. The Purchaser hereby claims exemption from the Payment of Texas State, Local, MTA Sales & Use Taxes upon its purchases of taxable items on this order. Purchaser agrees to accrue and pay the tax to the Comptroller of Public Accounts as required by Statute.

INTENDED USE
OF MATERIAL ENG/TECH/CONSULTING SERVICES

BUYER P. DICKENS/ph (817) 897-4881 EXT 231

REQUISITIONER R. P. BAKER/JTM (817) 897-4881 EXT 573

TEXAS UTILITIES GENERATING COMPANY

[Signature]
PURCHASING AGENT

VENDOR' COPY

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

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P O. NO.	CPF-19724

PURCHASE ORDER CONTINUATION SHEET

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>3. CONSULTING FOR OTHER VARIOUS ASLB ACTIVITIES. EBASCO PROPOSAL ETTC-12 DATED JANUARY 9, 1984. ATTACHMENT F.</p> <p>4. CONSULTING FOR TUGCO NUCLEAR LICENSING.</p> <p>5. CONSULTING FOR HVAC DESIGN ISSUES.</p> <p>6. FIELD SUPPORT FOR HVAC ENGINEERING/INSTALLATION ISSUES.</p> <p>7. CONSULTING FOR CATHODIC PROTECTION ISSUES HILTI KWIK BOLTS AND NECESSARY DOCUMENTATION (TEST REPORT) TO JUSTIFY HILTI BOLT PERFORMANCE OF CORROSION RESISTANCE.</p> <p>8. CONSULTING FOR PIPING THERMAL EXPANSION MONITORING PROGRAM. EBASCO PROPOSAL ETTC-5 DATED NOVEMBER 16, 1983, ATTACHMENT E.</p> <p>9. CONSULTING FOR CALIBRATION METHODOLOGY.</p> <p><u>INITIATION OF SERVICES</u></p> <p>ADDITIONAL SERVICES TO BE PROVIDED SHALL BE ESTABLISHED ON A CASE-BY-CASE BASIS BY WRITTEN SUPPLEMENT TO THIS AGREEMENT AND SHALL BE SUBJECT TO THE TERMS AND CONDITIONS STATED HEREIN. THE WRITTEN SUPPLEMENT SHALL STATE THE EXACT SCOPE OF EACH TASK, NAME(S) OF FIELD SERVICE PERSONNEL PERFORMING THE SERVICE, THEIR CLASSIFICATION, BILLING RATE, THE SERVICE PERIOD, AND AN ESTIMATED COST OF THE SERVICES.</p> <p><u>REIMBURSEMENT, COMPENSATION AND OTHER COSTS OF THE SERVICES</u></p> <p>FOR SERVICES PERFORMED BY EBASCO, TUGCO SHALL COMPENSATE EBASCO ON THE BASIS OF BILLING RATES AND REIMBURSEMENT OF EXPENSES IN ACCORDANCE WITH ATTACHMENT B. BILLING RATES FOR EBASCO PERSONNEL SHALL BE APPROVED BY THE PURCHASER AND SUBMITTED IN ACCORDANCE WITH MARK-UPS ESTABLISHED PER ATTACHMENT B.</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR COPY

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

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CPF-19724	

PURCHASE ORDER CONTINUATION SHEET

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>THE ESTIMATED TOTAL PURCHASE AMOUNT OF THIS PURCHASE ORDER IS NOT TO EXCEED \$1,000.00 UNLESS AUTHORIZED BY WRITTEN SUPPLEMENT TO THIS PURCHASE ORDER.</p> <p><u>TEMPORARY ASSIGNMENT POLICY</u></p> <p>ATTACHED AS ATTACHMENT C IS EBASCO'S POLICY GOVERNING SHORT TERM ASSIGNMENTS OF PERSONNEL ASSIGNED TO THE COMANCHE PEAK JOBSITE. APPLICABLE REIMBURSABLE EXPENSES ARE DEFINED IN THIS ATTACHMENT.</p> <p><u>CONTROL AND APPROVAL</u></p> <p>EBASCO WILL FUNCTION IN COOPERATION WITH AND SUBJECT ALWAYS TO THE DIRECTION AND CONTROL OF TUGCO'S AUTHORIZED OFFICERS OR TUGCO'S DESIGNATED REPRESENTATIVES, AND WILL CONSULT WITH TUGCO IN ADVANCE OF IMPORTANT DECISIONS. TUGCO SHALL DESIGNATE IN EACH SUPPLEMENT A MEMBER OR MEMBERS OF TUGCO'S ORGANIZATION, OR OTHER REPRESENTATIVES, WHO SHALL BE THE AUTHORIZED REPRESENTATIVE OF TUGCO IN MATTERS PERTAINING TO SUCH SUPPLEMENT AND SHALL INFORM EBASCO'S AUTHORIZED REPRESENTATIVE PROMPTLY UPON DISCOVERY OF ANY MATERIALS, METHOD OR OTHER FEATURES OF THE SERVICES WHICH DO NOT MEET WITH TUGCO'S APPROVAL.</p> <p>EBASCO SHALL DESIGNATE A MEMBER OF ITS ORGANIZATION WHO WILL BE RESPONSIBLE FOR THE EXECUTION OF THE AUTHORIZED SERVICES AND WILL BE THE AUTHORIZED REPRESENTATIVE OF EBASCO REGARDING THE SERVICES.</p> <p><u>TERMS AND CONDITIONS</u></p> <p>TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS AGREEMENT ARE NOT APPLICABLE. FOR TERMS AND CONDITIONS REFER TO ATTACHMENT A OF THIS AGREEMENT.</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR COPY

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE	4 OF 4
P. O. NO.	
CPF-19724	

PURCHASE ORDER CONTINUATION SHEET

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p><u>COMMUNICATIONS</u></p> <p>ANY COMMUNICATIONS REGARDING THIS CONTRACT AND ANY ENSUING AUTHORIZATION SHALL BE SENT TO:</p> <p>EBASCO SERVICES, INC. TUGCO 10375 RICHMOND AVE. P.O. BOX 1002 HOUSTON, TEXAS 77042 GLEN ROSE, TEXAS 76043 ATTN: KIM COMBS ATTN: J. T. MERRITT AND CC: R. P. BAKER EBASCO SERVICES, INC. (ALL CORRESPONDENCE) TWO WORLD TRADE CENTER R. D. GENTRY 89TH FLOOR (CONTRACTUAL MATTERS NEW YORK, N. Y. 10048 ONLY) ATTN: R. C. IOTTI</p> <p><u>NOTE:</u></p> <p>THIS CONTRACT SHALL SUPERSEDE AND CLOSE CPF 7219 AND SUPPLEMENTS. WORK ORIGINALLY PERFORMED PRIOR TO JANUARY 1, 1984 AND CPF 7219 MAY BE INVOICED TO THIS PURCHASE ORDER IF THE CONDITIONS OF THE PURCHASE ORDER APPLY.</p> <p>EBASCO IS REQUIRED TO REFERENCE THIS PURCHASE ORDER/SUPPLEMENT NUMBER ON ALL INVOICES AND CORRESPONDENCE.</p> <p>EXPEDITERS AND INSPECTORS ARE ENTITLED TO ASK FOR AND RECEIVE ANY INFORMATION PERTINENT TO THIS ORDER.</p> <p>CONFIRMING TELEPHONE ORDER PLACED ON 5/10/84 BY PAUL DICKENS AT WHICH TIME TERMS AND CONDITIONS WERE VERIFIED. ANY CHANGE REQUIRES APPROVAL OF PERSON PLACING ORDER. <u>DO NOT DUPLICATE.</u></p> <p><u>ATTACHMENTS</u></p> <p>ATTACHMENT A - TERMS AND CONDITIONS, SERVICES ATTACHMENT B - BILLING RATES ATTACHMENT C - TEMPORARY ASSIGNMENT POLICY ATTACHMENT D - COMPUTER AND MAJOR EQUIPMENT RATES ATTACHMENT E - EBASCO PROPOSAL ETTC-5 DATED 11/16/83 ATTACHMENT F - EBASCO PROPOSAL ETTC-12 DATED 1/9/84</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR COPY

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

\$ ☐ ORIGINAL ORDER INCLUDING AMEND-
MENTS BY PREVIOUS SUPPLEMENTS
 \$ ☐ ADDITION BY THIS SUPPLEMENT
 \$ ☐ DEDUCTION BY THIS SUPPLEMENT
 \$ ☐ AMENDED TOTAL

PURCHASE ORDER SUPPLEMENT

Texas Utilities Generating Co.
P.O. Box 1002, Glen Rose, Texas 76043

DATE	ACCOUNT NO.	SUPPLEMENT NUMBER	TO P O NO
10/9/84	1-2-3230-940000-108	1	CPF 19724
		SHIPMENT PROMISED BY	ORIGINAL NOTIFICATION
		NOT APPLICABLE	X

T O EBASCO SERVICES, INC.
 10375 RICHMOND AVENUE
 HOUSTON, TEXAS 77042
 ATTN: KIM COMBS

NO CHANGES IN OR CANCELLATIONS OF PURCHASE ORDERS WILL BE RECOGNIZED UNLESS AUTHORIZED BY THIS SUPPLEMENT FORM ISSUED ONLY BY THE PURCHASING DEPARTMENT.

R 30325

CONFIRMED TO: KIM COMBS 713-954-2611

VENDOR WILL SIGN AND RETURN CARBON COPY OF THIS SUPPLEMENT
THE PURCHASING DEPARTMENT HAS MADE THE FOLLOWING CHANGES IN THE ABOVE NUMBERED PURCHASE ORDER

ITEM NO	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>THIS PURCHASE ORDER SUPPLEMENT NO. 1 IS ISSUED TO EBASCO SERVICES, INC. TO FURNISH FIELD SERVICE PERSONNEL AS REQUIRED BY TUGCO TO PROVIDE ADDITIONAL SERVICES FOR THE FOLLOWING:</p> <p><u>SCOPE OF SERVICES</u></p> <p>10. DAMAGE STUDY UNIT 1 - UPS VENTILATION ACTIVITIES</p> <p>11. RADIATION MONITORING STUDY</p> <p>12. REVIEW OF LAYOUT FOR EXTRACTION STEAM, HEATER DRAIN, AND FEEDWATER SYSTEM.</p> <p>THESE ACTIVITIES SHALL BE CONTROLLED PER THE EXISTING TERMS AND CONDITIONS OF CPF 19724. CONTRACT ITEM NUMBER SHALL CORRESPOND TO THE EBASCO "ORDER FOR SERVICES" NUMBERS SPECIFIED IN EBASCO CORRESPONDENCE ETTC-13, DATED JUNE 18, 1984 (ATTACHMENT NUMBER 1).</p> <p>COST CEILINGS SHALL BE ESTABLISHED AS DELINEATED IN EBASCO ETTC-13.</p>		

Except as herein amended, this Supplement carries forth and preserves all Terms and Conditions of the original Purchase Order and previous Supplements.

REASON FOR CHANGE

SEE BELOW

CHANGED BY R. P. DICKENS/ph	(817) 897-4881 Ex 215
REQUISITIONER R. BAKER/WRD	(817) 897-4881 Ex 573

TEXAS UTILITIES GENERATING COMPANY

By

PURCHASING AGENT



TEXA. UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 2 OF 3

P. O. NO.

SUPPLEMENT NO.

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

CPF 19724

1

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>13. PROJECT MANAGEMENT ASSISTANCE</p> <p>°EBASCO SHALL PROVIDE SERVICES OF ONE (1) OR MORE INDIVIDUALS RESPONSIBLE FOR RESIDENT MANAGEMENT OF EBASCO EFFORTS UNDER THIS SUPPLEMENT AND SUBSEQUENT SUPPLEMENTS.</p> <p>°ADDITIONAL ACTIVITIES AS DIRECTED BY TUGCO ENGINEERING CONSTRUCTION PROJECT MANAGEMENT.</p> <p><u>TEMPORARY ASSIGNMENT POLICY</u></p> <p>THE TERMS OF ATTACHMENT C OF PURCHASE ORDER CPF 19724 ENTITLED "TEMPORARY ASSIGNMENT POLICY" SHALL APPLY.</p> <p><u>SERVICE PERIOD</u></p> <p>DURATION OF SERVICE PERIOD SHALL NOT EXCEED ONE (1) YEAR UNLESS AUTHORIZED BY ADDITIONAL SUBSEQUENT SUPPLEMENT.</p> <p>TUGCO DESIGNATED PERSONNEL REPRESENTATIVES FOR THE ABOVE ITEMS ARE AS FOLLOWS:</p> <p>ITEM 10 C. K. MAEHLMAN ITEM 11 R. D. CALDER ITEM 12 R. D. CALDER ITEM 13 J. T. MERRITT</p> <p><u>FEE SCHEDULE</u></p> <p>NO ADDITIONAL MONIES REQUIRED.</p> <p><u>TERMS AND CONDITIONS</u></p> <p>THE TERMS AND CONDITIONS TO THIS SUPPLEMENT NO. 1 REMAIN UNCHANGED.</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR' COPY

TEXA. UTILITIES GENERATING COMPANY
A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 3 OF 3

P. O. NO.

SUPPLEMENT NO.

CPF 19724

1

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			CONFIRMING TELEPHONE ORDER PLACED ON 10/9/84 BY PAUL DICKENS AT WHICH TIME TERMS AND CONDITIONS WERE VERIFIED. ANY CHANGE REQUIRES APPROVAL OF PERSON PLACING ORDER. <u>DO NOT DUPLICATE.</u>		
			<u>INTENDED USE:</u>		
			ENGINEERING/CONSTRUCTION		
			ENGINEERING/TECHNICAL/CONSULTING SERVICES		
			<u>ATTACHMENT:</u>		
			1. EBASCO ETTC-B, DATED JUNE 18, 1984		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR' COPY

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

ORIGINAL ORDER INCLUDING AMENDMENTS BY PREVIOUS SUPPLEMENTS

PURCHASE ORDER SUPPLEMENT

ADDITION BY THIS SUPPLEMENT

DEDUCTION BY THIS SUPPLEMENT

AMENDED TOTAL

Texas Utilities Generating Co.
P.O. Box 1002, Glen Rose, Texas 76043

SUPPLEMENT NUMBER

TO

P.O. NO. CPF 19724

2

DATE	ACCOUNT NO.	SHIPMENT PROMISED BY	ORIGINAL NOTIFICATION	CONFIRMATION
2/1/85	50% 2-0-4420-625111-108 50% 2-0-4420-625310-108	SEE BELOW		X

T
O

EBASCO SERVICES, INC.
10375 RICHMOND AVENUE
HOUSTON, TEXAS 77042
ATTN: KIM COMBS

NO CHANGES IN OR CANCELLATIONS OF PURCHASE ORDERS WILL BE RECOGNIZED UNLESS AUTHORIZED BY THIS SUPPLEMENT FORM ISSUED ONLY BY THE PURCHASING DEPARTMENT.

R 34509

CONFIRMED TO: KIM COMBS 713-954-2611

VENDOR WILL SIGN AND RETURN CARBON COPY OF THIS SUPPLEMENT
THE PURCHASING DEPARTMENT HAS MADE THE FOLLOWING CHANGES IN THE ABOVE NUMBERED PURCHASE ORDER

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			THIS PURCHASE ORDER SUPPLEMENT NUMBER 2 IS ISSUED TO PROVIDE ADDITIONAL SERVICES FOR THE FOLLOWING: <u>SCOPE OF SERVICES</u> 14. PROVIDE ON-SITE COMPUTER AIDED DRAFTING (CADD) SERVICES FOR UNIT 2 CONDUIT SUPPORT SYSTEM. EBASCO SHALL PROVIDE THE CADD SYSTEM, TRAINED OPERATORS, COMPUTER OPERATORS, AND SUPPLIES NECESSARY TO PRODUCE CONDUIT AND/OR CABLE TRAY SUPPORT DRAWINGS CAPABLE OF BEING ISSUED FOR FABRICATION AND CONSTRUCTION PURPOSES. <u>SERVICE PERIOD</u> THE ABOVE STATED SERVICES SHALL BE ACCOMPLISHED BY USING SIX STATIONS, SIX DAY/WEEK, OPERATED IN TWO EIGHT-HOUR SHIFTS, WITH AN OCCASIONAL OPERATION OF THE OTHER TWO STATIONS. IF THE WORK EXCEEDS THE MINIMUM, AS IS LIKELY, THEN A THIRD SHIFT CAN BE USED. WITH THE THIRD SHIFT AND ALL EIGHT STATIONS OPERATING, 30,000 HOURS OF WORK WOULD BE ACCOMPLISHED DURING THE CRITICAL SIX MONTH PERIOD.		

Except as herein amended, this Supplement carries forth and preserves all Terms and Conditions of the original Purchase Order and previous Supplements.

REASON FOR CHANGE

SEE BELOW

CHANGED BY P. DICKENS/ph (817) 897-4881 EXT 215
REQUISITIONED BY L. M. POPPLEWELL, (817) 897-4881 EXT

TEXAS UTILITIES GENERATING COMPANY

By

PURCHASING AGENT

2/1/85

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 2 OF 3

P. O. NO.

SUPPLEMENT NO.

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

CPF 19724

2

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>THE WORK COMPLETION DATE IS APPROXIMATELY JULY 16, 1985.</p> <p><u>FEE SCHEDULE</u></p> <p>EBASCO SERVICES, INC. SHALL INVOICE TEXAS UTILITIES IN ACCORDANCE WITH THE SCHEDULE OF COMPUTER RATES (ATTACHMENT NO. 1) AND CPSES SITE CAD STATION OPERATOR RATES (ATTACHMENT NO. 2)</p> <p>THE TOTAL AMOUNT EBASCO SERVICES, INC. IS AUTHORIZED TO INVOICE PURCHASER FOR THE ABOVE STATED SERVICES OF THIS PURCHASE ORDER CPF 19724, SUPPLEMENT NO. 2 SHALL NOT EXCEED ONE MILLION THREE HUNDRED THOUSAND DOLLARS</p> <p><u>TERMS AND CONDITIONS</u></p> <p>THE TERMS AND CONDITIONS PRINTED ON THE BACKSIDE HEREOF DO NOT APPLY. FOR TERMS AND CONDITIONS ON THIS PURCHASE ORDER SUPPLEMENT NUMBER 2, REFER TO ORIGINAL PURCHASE ORDER CPF 19724.</p> <p>PROPER DOCUMENTATION AND RECEIPTS SHALL ACCOMPANY ALL INVOICES.</p> <p>EBASCO SERVICES, INC. IS REQUIRED TO REFERENCE THIS PURCHASE ORDER NUMBER ON ALL INVOICES AND CORRESPONDENCE PERTAINING TO THIS PURCHASE ORDER.</p> <p><u>EXPEDITING</u></p> <p>ALL GOODS AND SERVICES FURNISHED UNDER THIS ORDER MAY BE EXPEDITED AT ALL TIMES AND PLACES INCLUDING THE PREMISES OF THE SELLER AND HIS SUPPLIERS, REGARDLESS OF TIER, EITHER BEFORE, DURING OR AFTER MANUFACTURE BY REPRESENTATIVES DESIGNATED BY THE OWNER. THE</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR COPY

TEXAS UTILITIES GENERATING COMPANY

DIVISION OF TEXAS UTILITIES ELECT. CO

PAGE 3 OF 3		P.O. NO.		SUPPLEMENT NO.		PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET	
CPF 19724		2					
ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE		
			<p>EXERCISE OF OR FAILURE TO EXERCISE THIS RIGHT TO EXPEDITE SHALL NOT RELIEVE THE SELLER OF HIS OBLIGATION TO FURNISH ALL GOODS AND SERVICES IN STRICT CONFORMANCE WITH ALL OF THE TERMS OF THIS ORDER.</p> <p>IF EXPEDITING IS PERFORMED ON THE PREMISES OF THE SELLER OR HIS SUPPLIERS, SELLER SHALL FURNISH WITHOUT ADDITIONAL CHARGES ALL REASONABLE FACILITIES AND ASSISTANCE FOR THE SAFETY AND CONVENIENCE OF THE OWNER'S REPRESENTATIVES IN THE PERFORMANCE OF THEIR DUTIES.</p> <p>CONFIRMING TELEPHONE ORDER PLACED ON 2/1/35 BY P. DICKENS AT WHICH TIME TERMS AND CONDITIONS WERE VERIFIED. ANY CHANGE REQUIRES APPROVAL OF PERSON PLACING ORDER. <u>DO NOT DUPLICATE.</u></p> <p><u>INTENDED USE:</u></p> <p>ENGINEERING - CADD SYSTEM SERVICES FOR UNIT 2 CABLE TRAY AND CONDUIT SUPPORT DRAFTING.</p> <p><u>ATTACHMENTS</u></p> <ol style="list-style-type: none"> 1. SCHEDULE OF COMPUTER RATES 2. CPSES SITE CAD STATION OPERATOR RATES <p><u>REFERENCE:</u></p> <ol style="list-style-type: none"> 1. OFFICE MEMORANDUM TO L. M. POPPLEWELL FROM R. C. IOTTI 				

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR COPY

TEXAS UTILITIES GENERATING COMPANY

DIVISION OF TEXAS UTILITIES ELECTRIC CO.

ORIGINAL ORDER INCLUDING AMENDMENTS BY PREVIOUS SUPPLEMENTS

PURCHASE ORDER SUPPLEMENT

ADDITION BY THIS SUPPLEMENT

DEDUCTION BY THIS SUPPLEMENT

Texas Utilities Generating Co.
P.O. Box 1002, Glen Rose, Texas 76043

AMENDED TOTAL

SUPPLEMENT NUMBER

TO

P.O. NO.

CPF 19724

3

DATE

ACCOUNT NO.

SHIPMENT PROMISED BY

ORIGINAL NOTIFICATION

CONFIRMATION

3/29/85

1-2-9230-940000-108

SEE BELOW

X

T
O

EBASCO SERVICES, INC.
10375 RICHMOND AVENUE
HOUSTON, TEXAS 77042
ATTN: KIM COMBS

NO CHANGES IN OR CANCELLATIONS OF PURCHASE ORDERS WILL BE RECOGNIZED UNLESS AUTHORIZED BY THIS SUPPLEMENT FORM ISSUED ONLY BY THE PURCHASING DEPARTMENT.

R 36547

CONFIRMED TO: KIM COMBS (713)954-2611

VENDOR WILL SIGN AND RETURN CARBON COPY OF THIS SUPPLEMENT
THE PURCHASING DEPARTMENT HAS MADE THE FOLLOWING CHANGES IN THE ABOVE NUMBERED PURCHASE ORDER

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>THIS PURCHASE ORDER SUPPLEMENT NUMBER 3 IS ISSUED TO PROCURE ADDITIONAL SERVICES OF EBASCO AND TO AMEND THE PURCHASE ORDER AS FOLLOWS:</p> <p><u>SERVICE PERIOD</u></p> <p>THE SERVICE PERIOD FOR THIS CONTRACT CPF 19724 IS FORMALLY EXTENDED, BY THIS PURCHASE ORDER SUPPLEMENT NUMBER 3, THROUGH DECEMBER 31, 1985.</p> <p>THIS EXTENSION IS A FORMAL EXTENSION OF THE CONTRACT AGREEMENT, ONLY. SERVICE PERIODS AS ESTABLISHED FOR INDIVIDUAL TASKS IN THE ORIGINAL CONTRACT CPF 19724 AND SUBSEQUENT SUPPLEMENTS REMAIN IN EFFECT UNLESS FORMALLY EXTENDED BY WRITTEN SUPPLEMENT TO THIS PURCHASE ORDER.</p> <p><u>AMENDED SCOPE OF SERVICES</u></p> <p>15. PROVIDE GENERAL INFORMATION FROM EBASCO EQUIPMENT QUALIFICATION LIBRARY DATA BASE SUCH AS MATERIAL TEMPERATURE RATINGS AND THERMAL AGING TEST DATA.</p>		

Except as herein amended, this Supplement carries forth and preserves all Terms and Conditions of the original Purchase Order and previous Supplements.

REASON FOR CHANGE

COMPUTERIZED DATA

FOR RESOLUTION OF SDAR 84-27

CHANGED BY FRED STOBAUGH/ph (817) 897-4881 EXT 231

REQUISITIONER C. W. WILSON/RDC (817) 897-4881 EXT 449

TEXAS UTILITIES GENERATING COMPANY

BY

PURCHASING AGENT

VENDOR' COPY

TEXAS UTILITIES GENERATING COMPANY
A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 2 OF 4

P. O. NO.

SUPPLEMENT NO.

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

CPF 19724

3

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>- SUCH DATA SHALL BE USED BY EBASCO ENGINEERS ASSIGNED TO THE TNE-EQUIPMENT QUALIFICATION GROUP AT THE CPSES JOBSITE TO REQUALIFY CPSES EQUIPMENT TO HIGHER TEMPERATURES IN THE RESOLUTION OF SDAR 84-27.</p> <p>TUGCO SHALL COMMUNICATE DATA NEEDS TO EBASCO AT THEIR NEW YORK OFFICE. EBASCO SHALL PERFORM INPUT/OUTPUT FUNCTIONS USING THEIR SOFTWARE TO ACCESS THE EBASCO SYSTEM 1000 MICROCOMPUTER EQUIPMENT QUALIFICATION DATA BASE AND FORWARD THE HARD COPY TO THE CPSES JOBSITE.</p> <p><u>SERVICE PERIOD FOR TASK 15</u></p> <p>THE ABOVE STATED SERVICES SHALL BE REQUIRED THROUGH THE COMPLETION OF SDAR 84-27. WORK COMPLETION DATE IS APPROXIMATELY OCTOBER 31,, 1985.</p> <p><u>FEE SCHEDULE</u></p> <p>EBASCO, INCORPORATED SHALL INVOICE TUGCO AT THE RATE OF PER MONTH FOR THE ABOVE COMPUTER SERVICES.</p> <p>PROPER DOCUMENTATION AND RECEIPTS SHALL ACCOMPANY ALL INVOICES.</p> <p>THE ABOVE RATES ARE FIRM AND NOT SUBJECT TO ESCALATION.</p> <p>THE TOTAL AMOUNT EBASCO SERVICES, INC. IS AUTHORIZED TO INVOICE PURCHASER FOR TASK 15 AS STATED IN THIS PURCHASE ORDER SUPPLEMENT NUMBER 3 SHALL NOT EXCEED --, -- UNLESS AUTHORIZED BY WRITTEN SUPPLEMENT TO THIS PURCHASE ORDER.</p> <p>TOTAL ADDITION BY THIS PURCHASE ORDER SUPPLEMENT NUMBER 3.</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR' COPY

TEXAS UTILITIES GENERATING COMPANY

A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 3 OF 4

P. O. NO.

SUPPLEMENT NO.

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

CPF 19724

3

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p><u>DESIGNATED REPRESENTATIVE</u></p> <p>TUGCO DESIGNATED REPRESENTATIVE FOR THIS TASK NUMBER 15 IS CHARLES L. WILSON, TNE-EQUIPMENT QUALIFICATION SUPERVISOR.</p> <p><u>TERMS AND CONDITIONS</u></p> <p>THE TERMS AND CONDITIONS PRINTED ON THE REVERSE SIDE HEREOF DO NOT APPLY. FOR TERMS AND CONDITIONS ON THIS PURCHASE ORDER SUPPLEMENT NUMBER 3 REFER TO ORIGINAL PURCHASE ORDER CPF 19724.</p> <p>EBASCO SERVICES, INC. IS REQUIRED TO REFERENCE THIS PURCHASE ORDER SUPPLEMENT NUMBER 3 AND TASK NUMBER 15 ON ALL INVOICES AND CORRESPONDENCE PERTAINING TO THIS PURCHASE ORDER SUPPLEMENT NUMBER 3.</p> <p><u>EXPEDITING</u></p> <p>ALL GOODS AND SERVICES FURNISHED UNDER THIS ORDER MAY BE EXPEDITED AT ALL TIMES AND PLACES INCLUDING THE PREMISES OF THE SELLER AND HIS SUPPLIERS, REGARDLESS OF TIER, EITHER BEFORE, DURING OR AFTER MANUFACTURE BY REPRESENTATIVES DESIGNATED BY THE OWNER. THE EXERCISE OF OR FAILURE TO EXERCISE THIS RIGHT TO EXPEDITE SHALL NOT RELIEVE THE SELLER OF HIS OBLIGATION TO FURNISH ALL GOODS AND SERVICES IN STRICT CONFORMANCE WITH ALL OF THE TERMS OF THIS ORDER.</p> <p>IF EXPEDITING IS PERFORMED ON THE PREMISES OF THE SELLER OR HIS SUPPLIERS, SELLER SHALL FURNISH WITHOUT ADDITIONAL CHARGES ALL REASONABLE FACILITIES AND ASSISTANCE FOR THE SAFETY AND CONVENIENCE OF THE OWNER'S REPRESENTATIVES IN THE PERFORMANCE OF THEIR DUTIES.</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR' COPY

TEXAS UTILITIES GENERATING COMPANY
A DIVISION OF TEXAS UTILITIES ELECTRIC CO.

PAGE 4 OF 4

P. O. NO.

SUPPLEMENT NO.

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

CPF 19724

3

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			CONFIRMING TELEPHONE ORDER PLACED ON 3/29/85 BY FRED STOBAUGH AT WHICH TIME TERMS AND CONDITIONS WERE VERIFIED. ANY CHANGE REQUIRES APPROVAL OF PERSON PLACING ORDER. <u>DO NOT</u> <u>DUPLICATE.</u> <u>REFERENCE</u> EBASCO LETTER EQP-85-08 DATED MARCH 11, 1985 FROM R. M. BUCCI SDAR 84-27 PUNCH LIST 98, SYSTEM 9800, ITEM 257		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE
EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

VENDOR' COPY.

ORIGINAL ORDER INCLUDING AMENDMENTS BY PREVIOUS SUPPLEMENTS

PURCHASE ORDER

FILE NO.

ADDITION BY THIS SUPPLEMENT

DEDUCTION BY THIS SUPPLEMENT

AMENDED TOTAL

Texas Utilities Generating
P.O. Box 1002, Glen Rose, Texas 75045

F.O.B.

NOT APPLICABLE

SUPPLEMENT NUMBER

4

TO
P.O. NO.

CPF

ACCOUNT NO.

CODE PER INVOICE

SHIPMENT PROMISED BY

NOT APPLICABLE

ORIGINAL
NOTIFICATION

INFORMATION

DATE
7-25-85

EBASCO SERVICE, INC.
10375 RICHMOND AVENUE
HOUSTON, TEXAS 77042
ATTN: KIM COMBS

NO CHANGES IN OR
PURCHASE ORDERS WITH
UNLESS AUTHORIZED
MENT FORM ISSUED BY
CHASING DEPARTMENT

ATIONS OF
RECOGNIZED
THIS SUPPLE-
Y THE PUR-

R 38049

CONFIRMED TO: KIM COMBS 713-954-2611

VENDOR WILL SIGN AND RETURN CARBON COPY OF THIS SUPPLEMENT
THE PURCHASING DEPARTMENT HAS MADE THE FOLLOWING CHANGES IN THE ABOVE NUMBERED PURCHASE ORDER:

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL PRICE
			<p>THIS PURCHASE ORDER SUPPLEMENT NUMBER 4 TO PURCHASE ORDER CPF 19724 IS ISSUED TO EXPAND THE SCOPE OF SERVICES, INCORPORATE THE MASTER SERVICE AGREEMENT, AND ADDRESS PER DIEM OF SUBJECT PURCHASE ORDER AS SHOWN BELOW.</p> <p><u>EXPENDED SCOPE OF SERVICES</u></p> <p>THE FOLLOWING TASKS ARE ADDED TO EBASCO'S SCOPE OF SERVICES:</p> <p>1A. FIELD SUPPORT/CONSULTING FOR PROTECTIVE COATINGS IN UNIT 2.</p> <p>13A. PROJECT MANAGEMENT ASSISTANCE - EBASCO SHALL PROVIDE SERVICES OF ONE (1) OR MORE INDIVIDUALS RESPONSIBLE FOR RESIDENT MANAGEMENT OF EBASCO EFFORTS UNDER THIS SUPPLEMENT AND SUBSEQUENT SUPPLEMENTS FOR UNIT 2.</p> <p>14A. PROVIDE ON-SITE COMPUTER AIDED DRAFTING (CADD) SERVICES (MACHINE TIME ONLY) FOR UNIT 1 CONDUIT SUPPORT/CABLE TRAY SUPPORT SYSTEM. EBASCO SHALL PROVIDE THE CADD SYSTEM, TRAINED OPERATORS, COMPUTER</p>		

Except as herein amended, this Supplement carries forth and preserves all Terms and Conditions of the original Purchase Order and previous

REASON FOR CHANGE
SEE ABOVE

CHANGED BY: S. J. DAUGH/PA

(817) 897-4881 EXT 1

REQUISITIONER: PUPPLEWELL/JIM

(817) 897-4881 EXT 1

TEXAS UTILITIES GENERATING

By

PURCHASING AGENT

PURCHASING COPY

P.O. NO.

SUPPLEMENT NO.

PURCHASE ORDER SUPPLEMENT CONTINUATION SHEET

CPF 19724

4

ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	TOTAL ITEM PRICE
			<p>OPERATORS AND SUPPLIES NECESSARY TO PRODUCE CONDUIT AND/OR CABLE TRAY SUPPORT DRAWINGS CAPABLE OF BEING ISSUED FOR FABRICATION AND CONSTRUCTION PURPOSES.</p> <p>15A. PROVIDE GENERAL INFORMATION FROM EBASCO EQUIPMENT QUALIFICATION LIBRARY DATA BASE SUCH AS MATERIAL TEMPERATURE RATINGS AND THERMAL AGING TEST DATA. SUCH DATA SHALL BE USED BY EBASCO ENGINEERS ASSIGNED TO THE TNE-EQUIPMENT QUALIFICATION GROUP AT THE CPSES JOBSITE TO REQUALIFY CPSES EQUIPMENT TO HIGHER TEMPERATURES IN THE RESOLUTION OF SOAR 84-27.</p> <p>TUGCO SHALL COMMUNICATE DATA NEEDS TO EBASCO AT THEIR NEW YORK OFFICE. EBASCO SHALL PERFORM INPUT/OUTPUT FUNCTIONS USING THEIR SOFTWARE TO ACCESS THE EBASCO SYSTEM 1000 MICROCOMPUTER EQUIPMENT QUALIFICATION DATA BASE AND FORWARD THE HARD COPY TO THE CPSES JOBSITE. THIS ITEM IS FOR UNIT 2.</p> <p>16. EBASCO TO PROVIDE SERVICES TO ASSIST IN THE PREPLANNING STAGE OF THE 1985 UNIT 2 INPO EVALUATION. THIS EFFORT HAS BEEN COMPLETED AND LISTED HERE FOR BILLING PURPOSES.</p> <p>17. EBASCO TO PROVIDE SERVICES TO ASSIST IN PRELIMINARY STUDIES FOR A PROBABILITY RISK ASSESSMENT. THIS ITEM HAS BEEN COMPLETED AND LISTED HERE FOR BILLING PURPOSES. THIS ITEM IS FOR UNIT 1.</p> <p>17A. PROBABILITY RISK ASSESSMENT FOR UNIT 2.</p> <p>18. EBASCO IS TO PROVIDE SERVICES TO REVIEW JET IMPINGEMENT CRITERIA AND THE PROGRAM FOR UNIT 2 PRIOR TO UNIT 2 DAMAGE STUDY BEGINNING. THIS EFFORT HAS BEEN COMPLETED AND IS LISTED FOR BILLING PURPOSES ONLY.</p>		

ALL TERMS AND CONDITIONS SHOWN ON THE FACE AND REVERSE OF THE SIGNED SHEET OF THIS ORDER SUPPLEMENT ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON.

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			19. EBASCO SHALL PROVIDE SERVICES FOR AN INDEPENDENT ASSESSMENT OF THE UNIT 1 HVAC SYSTEM AS DELINEATED IN THE EBASCO PROPOSAL AND MINUTES OF MEETING EB-T-083, DATED 4/12/85.		
			20. EBASCO SHALL PROVIDE A THERMAL ANALYSIS BASED ON LOSS OF VENTILATION IN UNIT 1.		
			21. EBASCO SHALL PROVIDE INSTRUMENTATION AND CONTROLS AND START-UP CONSULTING PERSONNEL (OPERATIONS SUPPORT) FOR UNIT 2 ONLY. BILLINGS AGAINST THIS TASK SHALL CEASE AS OF 5/31/85. FUTURE BILLINGS WILL BE AGAINST CPF-21615.		
			22. EBASCO SHALL PROVIDE SCHEDULING SERVICE PERSONNEL TO REVIEW THE UNIT 2 PRELIMINARY SCHEDULE. THIS TASK IS COMPLETE AND IS LISTED FOR BILLING PURPOSES ONLY.		
			<p><u>AMENDED FEE SCHEDULE</u></p> <p>THE ABOVE SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS FOR BILLING SET FORTH IN ORIGINAL PURCHASE ORDER CPF 19724.</p> <p>THE ESTIMATED TOTAL PURCHASE AMOUNT OF THIS PURCHASE ORDER IS NOT TO EXCEED UNLESS AUTHORIZED BY WRITTEN SUPPLEMENT TO THIS PURCHASE ORDER.</p> <p>TOTAL ADDITION AS A RESULT OF THIS PURCHASE ORDER SUPPLEMENT NUMBER 4.</p> <p><u>TERMS AND CONDITIONS</u></p> <p>TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS PURCHASE ORDER AND ANY OTHER TERMS AND CONDITIONS ORIGINALLY AGREED TO BY PURCHASE ORDER CPF 19724 AND ITS SUBSEQUENT SUPPLEMENTS DO NOT APPLY. FOR TERMS AND CONDITIONS ON THIS PURCHASE ORDER CPF 19724 AND ANY SUBSEQUENT SUPPLEMENTS THERETO, REFER TO THE MASTER SERVICE CONTRACT TERMS AND CONDITIONS AGREEMENT NO. S-FN-HS-007 DATED NOVEMBER 30, 1984.</p>		

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ITEM NO.	QUANTITY WANTED	U/I	DESCRIPTION	NET UNIT PRICE	RE	IN
			<u>AMENDMENT TO TEMPORARY ASSIGNMENT POLICY</u> PER DIEM FOR PERSONNEL ON SHORT TERM ASSIGNMENT IS HEREBY MODIFIED AND SHALL BE IN ACCORDANCE WITH THE FOLLOWING: PER DIEM WILL BE CHARGED AT A MAXIMUM RATE OF PER DAY SUBJECT TO THE PRORATED SCHEDULE SHOWN BELOW. NOTE: PER DIEM SHALL COVER ALL EXPENSES INCLUDING TRANSPORTATION AND SHALL NOT BEGIN UNTIL AFTER THE FIRST 30 DAYS OF TEMPORARY ASSIGNMENT TO THE CPSES JOBSITE. <u>ACTUAL HOURS AT JOBSITE</u> <u>PER DIEM PAID</u> 1 \$ 00 2 3 4 5 6 7 8 9 10 CONFIRMING TELEPHONE ORDER PLACED ON 7/25/85 BY FRED STOBACH AT WHICH TIME TERMS AND CONDITIONS WERE VERIFIED. ANY CHANGE REQUIRES APPROVAL OF PERSON PLACING ORDER. <u>DO NOT DUPLICATE.</u>			

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