Proposal Number :
WO/JO Number :
Letter Number : **PP-7104-PR-C**

Scope Change Number : 2A

TENNESSEE VALLEY AUTHORITY
TASK ASSIGNMENT ORDER (TAO)

CONTRACT NUMBER : **99998970**
CONTRACTOR : **Parsons**
TASK NUMBER : **Par_ - 0637 - 439**
REVISION NUMBER : 02

LEAD : **Lynn Petty**
TECHNICAL MGR. : **Ron Purkey**
EFFECTIVE BEGIN DATE : **12/13/2002**
CURRENT END DATE : **07/25/2003**
PHASE : **1**

PLANT : **Kingston Fossil Plant**
PROJECT : **KIF Scrubber addition gypsum stack**
TASK DESCRIPTION : **Determine feasability of locating gypsum stack on the KIF reservation.**
DESCRIPTION OF REVISION: **Additional Scope**

FEE TYPE APPLICABLE TO THIS TAO :
_ Performance Award Fee
_ Fixed Price Fee - Managed
Fixed-Percentage Fee ==========> ___ Staff Augmentation ___ Field Support
_ No fee applies to this task

Fixed Percentage Type

TASK SUMMARY

	Previous Revision		Net Change		Total task Authorization
Negotiated Estimated Cost	$76,893	+	$32,578	=	$109,471
Fixed Fee	$4,157	+	$1,814	=	$5,971
Earned Award Fee To Date	$0	+	$0	=	$0
Available Award Fee	$0	+	$0	=	$0
Total Estimated Price	$81,050	+	$34,392	=	$115,442

TVA SHORT CODE **001BRG4** PCN **FOS052** LOCATION CODE _____ PERFORMING UNIT

APPROVED BY:

9/2 P

_____ TVA Contract Administrator

_____ Date

DISTRIBUTION:
Partner (cc)

Lead Eng.
5/2/2003

Letter Number : PP-7104-PR-C

Scope Change Number : 2A

PROPOSAL INTERNAL REVIEW SHEET

CONTRACT NUMBER : **99998970**
CONTRACTOR : **Parsons**
TASK NUMBER : **Par_ - 0637 - 439**

PROJ ENG/TECH REP : **Lynn Petty**
TECHNICAL MGR. : **Ron Purkey**
EFFECTIVE BEGIN DATE : **12/13/2002**
CURRENT END DATE : **07/25/2003**

PHASE : **1**
PLANT : **Kingston Fossil Plant**
PROJECT : **KIF Scrubber addition gypsum stack**
TASK DESCRIPTION : **Determine feasability of locating gypsum stack on the KIF reservation.**

Is this in the Spend Plan ? _____

Subcontractor Name :

Budget Amt. $ _____

FEE TYPE APPLICABLE TO THIS TAO :

___ Performance Award Fee
_ Fixed Price Fee - Managed
Fixed-Percentage Fee ==========> ___ Staff Augmentation ___ Field Support
___ No fee applies to this task

Fixed Percentage Type

DESCRIPTION OF REVISION : **Additional Scope**

Net Change	
Negotiated Estimated Cost	$32,578
Fixed Fee	$1,814
Available Award Fee	$0
Total Estimated Price	$34,392

APPROVAL :

*** Please provide or confirm the above TAO information and short code reference listed below.**

*** If the attached proposal is to be approved, please complete, sign and return this review sheet to Larry Harless, LP-2P-C, so that the TAO form to be signed by the appropriate Department Manager can be generated.**

_____ Date _____

DISAPPROVAL :

*** If the attached proposal is not acceptable, please contact the contractor to prepare a revised proposal.**

*** If the attached proposal is to be cancelled and the work is not to be performed by the Contractor, sign below and return to Larry Harless.**

_____ Date _____

Short Code

Short Code	PCN	Loc Code	Perf Unit	Commit $ (Approp. Only)	Comments

5/2/2003

PARSONS E&C

633 Chestnut Street #400 • Chattanooga, Tennessee 37450-0400 • (423) 757-8020 • Fax: (423) 266-0922

TENNESSEE VALLEY AUTHORITY
CONTRACT 99998970
KINGSTON FOSSIL PLANT
SCRUBBER ADDITION
GYPSUM STACK
PHASE 1A STUDY
PR- 0637 – PCN FOS052

April 30, 2003
PP-7104-PR-C
Scope Change: 2A
End Date: July 25, 2003
Lead Eng: L. Petty
Tech Mgr: R. Purkey

Mr. James G. Adair
Tennessee Valley Authority
1101 Market Street
Chattanooga, TN 37402-2801

Dear Mr. Adair:

Parsons E&C is pleased to submit this proposal for additional work related to preparation of a Phase 1A engineering study for a proposed gypsum stack for the proposed scrubber addition at Kingston Fossil Plant.

SCOPE

The additional scope covered in this proposal continues the study of additional options to determine volumes of gypsum stack configurations for the ash dredge pond area as outlined in the attached Task Work Statement. Also included are parametric slope stability analyses to determine whether stack height would limit the volumes that could theoretically obtained based on the site geometry.

ORGANIZATION

All work will be performed under the direction of Mr. Bill Griffith, Manager Chattanooga Operations, who is directly responsible to TVA for the overall quality of the work. Mr. Dan Smith will serve as the Engineering Manager and Lead Engineer, with support provided by the Parsons Chattanooga and Reading offices.

SCHEDULE

A July 25, 2003 TAO close date is being requested.

PRICING

All work performed will be in accordance with the terms of Contract 99998970. The estimated engineering cost for the additional work included here is $34,392.

This estimate was prepared assuming that no overtime will be required. However, should emergency conditions or schedule constraints occur, Parsons requests the flexibility to use additional overtime under the original authorization provided the total price is not exceeded.

SUMMARY

Parsons is pleased with the opportunity to be of service to TVA and we look forward to the successful completion of this task. If you have any questions, please feel free to contact Mr. Dan Smith at (423) 757-8088 or me at (423) 757-8027.

Very truly yours,

RLW

William D. Griffith, P.E.
Manager Chattanooga Operations

Attachment: Task Work Statement
Proposal Pricing Forms

TENNESSEE VALLEY AUTHORITY
CONTRACT 99998970
KINGSTON FOSSIL PLANT
SCRUBBER ADDITION
GYPSUM STACK
PHASE 1A STUDY
PR- 0637 – PCN FOS052

TASK WORK STATEMENT

1.0 BACKGROUND

A new gypsum disposal area will be constructed due to the addition of scrubbers to Kingston Fossil Plant (KIF). Current disposal plans involve sluicing of gypsum from KIF (wet stacking). In addition, some by-product from Bull Run Fossil Plant (BRF) may also be transported and disposed at this facility. Scope change 2A includes performing additional conceptual capacity studies to determine the volume of gypsum for a wet-stacking operation at the existing ash pond location. The scope includes an evaluation of stability to determine whether this may limit the disposal volumes determined based on the facility geometry and areal extent. Also included is preparation of overheads for the Kingston Fossil Site gypsum stacking options for a presentation by the team to TVA Management.

2.0 PURPOSE

This Task Work Statement describes engineering support activities associated with this project. The task is being revised to develop a concept for disposal at the existing ash pond. Based on current TVA projections, it is assumed for purposes of this study that 300,000 tons of gypsum produced annually at KIF, and 185,000 tons produced annually at BRF will require disposal over a 20 year period. TVA desires that the facility be capable of a disposal volume ranging from 6 million tons to 10 million tons.

3.0 SCOPE

Perform a Phase IA study to determine the volume of gypsum that can be disposed at the ash pond location. An additional disposal scenario for gypsum stacking at the existing ash pond was identified in a meeting held on April 1, 2003. This scenario assumes that the Plant would continue wet ash stacking. Parsons was requested to evaluate whether this would reduce the footprint (and volume) for gypsum stacking determined for this location under the previously submitted scope change. Two additional stack concepts are to be studied for this scenario. The first concept involves a separate free-standing stack in the existing ash pond area, separate from the ash stack (located at the west end of the facility). This concept would not utilize available airspace between the two stacks. The second concept will utilize the airspace between the two stacks. A perimeter dike would be tied into the ash stack to create a pond. Ash would continue to be sluiced to the pond, while gypsum would be dredged into a separate area, and the available airspace would be maximized. The scope of work will be as follows:

- Based on data provided by TVA, determine whether the free water volume required for wet stacking would reduce the volume determined for dry stacking the ash in the previous scope change;
- Develop preliminary Autocad drawings for these two new scenarios for stacking gypsum, assuming wet ash stacking rather than dry ash stacking. If there is a significant change in the stack footprint, determine the reduction in volume.
- It is anticipated that the new stack configuration is sufficiently similar to that determined previously; therefore, additional cost estimating support is not required.
- Participate in internal scoping meetings with TVA as required.
- Based on discussions during the last project meeting at KIF, Parsons will perform parametric stability analyses to determine whether stability could limit the volume of gypsum that could be theoretically disposed, based on the geometry and areal extent of the stack. These analyses will use existing TVA site specific data readily available from recent geotechnical field programs and historic data from previous investigations.
- Parsons will determine volumes for 4(H) to 1(V) for the ash pond site in order to determine potential volume reduction due to the use of flatter slopes, in the event stability could be a limiting factor.

4.0 CLARIFICATIONS/ASSUMPTIONS

Parsons work scope for this project includes the following clarifications and assumptions:

- Preliminary annual gypsum production volumes are as stated in this Task Work Statement.
- The study will not determine configurations of a stack located at the existing ash pond for combinations of dry gypsum and wet gypsum stacking scenarios.
- The study will not consider the effects of combined ash/gypsum mixtures.
- The stability analyses will use configurations developed by Parsons for stack geometry and height, as well as existing data for the site(s) that are readily available from recent geotechnical field programs and historic data from previous investigations conducted by TVA. No additional geotechnical field programs will be required to complete this effort.
- The stability analyses will be preliminary in nature, and are not sufficient for permitting purposes. Parsons will consider TDEC requirements for seismic stability design to the extent practicable, to assess the likelihood that seismic events could affect stability, and ultimately, the disposal volume.
- The existing stilling basin will be assumed as the point of discharge for this facility. Parsons E&C will not examine any discharge criteria for NPDES discharges.
- The concept of stacking gypsum in the ash pond will also be based on a similar concept developed by TVA for stacking gypsum at the Cumberland Fossil Plant (CUF). TVA will provide Parsons E&C with drawings for use in developing the concept at KIF.
- Digital copy of Kelsh topography to be provided by TVA.
- Parsons E&C will utilize the existing current topographic features of the ash disposal area using topography provided by TVA. Parsons will utilize the existing geometry of the ash stack based on current topographic information, and will adjust the design contours for future ash placement slightly in order to establish a baseline for purposes of this study.
- No allowance is included for DCN preparation.
- No additional travel to the site is required for Reading support personnel.

5.0 DELIVERABLES

Parsons anticipates the following deliverables as part of this task:

- Autocad drawings:
  - Interior and final grading Scenarios, 3:1 slope, Option 3A and 3B (6 sheets @ 1 inch = 100 ft)
  - Cross-sections, 3:1 slope (4 sheets)
  - Interior and final grading Scenarios, 4:1 slope, Option 3A and 3B (6 sheets @ 1 inch = 100 ft)
  - Cross-sections, 4:1 slope (4 sheets)
  - Volumes for 4:1 slopes.

PARSONS ENERGY & CHEMICALS GROUP INC.
TVA TASK PROPOSAL FORM - CONTRACT 99998970
KIF, Scrubber Addition Gypsum Stack Phase 1 Study
PR - 0637 SC No.: 2A
30-Apr-03

"LABOR" & "OVERTIME LABOR"

POSITION/ GRADE	ST Billing Rate ($/HR)	ST HOURS	ST COST	OT Billing Rate ($/HR)	OT HOURS	OT COST($)	TOTAL COST($)
Project Management	$105.85	19	$2,045	$86.54	0	$0	$2,045
Technical Management	$88.42	14	$1,250	$72.29	0	$0	$1,250
Project Services	$62.06	33	$2,047	$50.74	0	$0	$2,047
Clerical	$23.79	19	$448	$35.68	0	$0	$448
SUBTOTAL SERVICES		85	$5,790		0	$0	$5,790
Senior Supvervising Engineer (E11)	$94.91	0	$0	$77.60	0	$0	$0
Supervising Engineer (E10)	$84.03	145	$12,184	$68.70	0	$0	$12,184
Principal Engr/Spv Designer (E09)	$76.17	18	$1,371	$62.28	0	$0	$1,371
Senior Engineer (E08)	$69.63	105	$7,311	$56.93	0	$0	$7,311
Engineer II (E07)	$61.01	0	$0	$49.88	0	$0	$0
Engineer I (E06)	$53.37	0	$0	$43.63	0	$0	$0
Associate Engineer (E05)	$52.25	0	$0	$42.72	0	$0	$0
Principal Designer (N16)	$66.05	0	$0	$81.00	0	$0	$0
Senior Designer (N14)	$57.91	0	$0	$71.02	0	$0	$0
Designer II (N12)	$42.30	0	$0	$51.87	0	$0	$0
Senior Drafter (N10)	$35.69	100	$3,569	$43.77	0	$0	$3,569
Drafter (N08)	$31.70	0	$0	$38.88	0	$0	$0
Associate Drafter (N06)	$27.84	0	$0	$34.14	0	$0	$0
Technician (N04)	$18.93	0	$0	$23.21	0	$0	$0
Proj. Sec'y II (N05)	$25.55	0	$0	$31.33	0	$0	$0
Proj. Sec'y I (N04)	$23.79	0	$0	$29.17	0	$0	$0
Word Processing (N03)	$17.03	0	$0	$20.89	0	$0	$0
Clerical (N02)	$15.14	0	$0	$18.57	0	$0	$0
SUBTOTAL ENG'G & DESIGN		368	$ 24,435		0	$ -	$ 24,435

SUBTOTAL LABOR	$30,225
TRANSPORTATION & SUBSISTANCE	$0
TEMPORARY ASSIGNMENT LIVING EXPENSES	$0
COMPUTERS, CAD, TELEPHONE, REPRODUCTION	$2,153
REPROGRAPHICS (OUTSIDE SERVICES)	$0
MISCELLANEOUS EXPENSES	$200
SUBCONTRACTED SERVICES	$0
SUBTOTAL EXPENSES	$2,353
SUBTOTAL (Labor & Expenses)	$32,578
FIXED FEE @ 6% (APPLIED TO LABOR ONLY)	$1,814
TOTAL TASK ESTIMATED COST	$34,392

Man-hours by Discipline - Provided for reference only

Project Management	19	Mechanical	0
Technical Management	14	Electrical	0
Project Scheduling/Controls	33	Cntr'l Sytms	0
Specialist	210	Civil/Struct	158
Clerical/Admin Support	19	TOTAL	453

PARSONS ENERGY & CHEMICALS GROUP INC.
TVA FHP TASK PROPOSAL FORM - CONTRACT 99998970
KIF, Scrubber Addition Gypsum Stack Phase 1 Study
PR - 0637 SC No.: 2A
30-Apr-03

Project Spend Plan

28-Apr-03 - Project Start

25-Jul-03 - Project Complete

3 - Project Duration - Months

	Hours	Cost
Month 1	140	$10,028
Month 2	225	$16,206
Month 3	88	$6,344
Month 4	0	$0
Month 5	0	$0
Month 6	0	$0
Month 7	0	$0
Month 8	0	$0
Month 9	0	$0
Month 10	0	$0
Month 11	0	$0
Month 12	0	$0
Month 13	0	$0
Month 14	0	$0
Month 15	0	$0
Month 16	0	$0
Month 17	0	$0
Month 18	0	$0
Month 19	0	$0
Month 20	0	$0
Fee		$1,814
TOTAL	453	$34,392

Resource Loading Reference (Parsons' use)

XE	10	ME	0	NE	0
XT	9	MD/MC	0	CE	58
XC	14	EE	0	CD/CC	100
XP	33	ED/EC	0	**TOTAL**	**453**
XS	210				
XA	19				