

PROPOSAL/SUB-CONTRACT

Date of Proposal:

Date of Sub-Contract:

Proposal No.: 7143-15560

Sub-Contract No.:

Bidder:

This Proposal/Sub-Contract is hereby submitted in quintuplicate to Kaiser Engineers, Inc., (hereinafter called "Contractor") Agent for Armco Steel Corporation, (hereinafter called "Owner"), P. O. Box F, Middletown, Ohio, 45042. Attention Mr. Vern L. Frankson, Manager-Procurement.

ACCEPTANCE: Contractor's acceptance of this Proposal/Sub-Contract shall be accomplished by Contractor's execution thereof and its insertion of a Sub-Contract number and date as provided for above. Contractor will return to the successful bidder one (1) signed and completed copy hereof. Upon such acceptance, the Proposal/Sub-Contract shall constitute a Sub-Contract between Contractor and the undersigned successful bidder and shall thereafter be designated by the Sub-Contract Number specified above, and wherever the term "Bidder" is written herein it shall be construed to mean "Sub-Contractor", and wherever the words "Proposal/Sub-Contract" are written they shall be construed to mean "Sub-Contract".

ACKNOWLEDGMENT: Bidder acknowledges that he has visited and has thoroughly examined the site for the proposed work, and without limitation, has ascertained fully all pertinent conditions which may in any manner bear upon the performance of the work herein proposed and the compensation Bidder proposes therefor; acknowledges receipt of and familiarity with and understanding of the plans and specifications therefor, as well as the various instructions, information, requirements, exhibits, terms and conditions covering the same, all as mentioned or referred to herein.

REJECTION: It is recognized and understood that Contractor has reserved the unconditional right to reject any or all proposals or to waive irregularities therein. It is further recognized and understood that Contractor has reserved the right in its absolute discretion to accept any particular proposal submitted by any bidder even though the price or completion date, or both, specified therein may not be so favorable as those set forth in some other proposal.

FACE SHEET "A"

BLUE, SMALL RED, ORANGE

WORK TO BE PERFORMED: Bidder hereby agrees to perform all the work described in and in strict accordance with this Proposal/Sub-Contract and the following attached documents which are by this reference incorporated as part of this Proposal/Sub-Contract:

Sub-Contract General Terms and Conditions (Articles 1 thru 37)
Exhibit "A" - Plans, Drawings and/or Specifications
Exhibit "B" - Items to be Supplied by Contractor or Others
Exhibit "C" - General Work Schedule

Without limiting the generality of the foregoing, the work to be performed includes the following:

SCOPE OF WORK: Furnish all labor, tools, supervision, supplies, transportation and equipment and do all things necessary to install, pressure test, pickle, and clean all piping systems in Owner's new Soaking Pits, all in strict accordance with Exhibit "A"; all such work being hereinafter sometimes called "The Work".

COMPENSATION: In consideration of performance of the work hereunder Contractor shall pay to Bidder the compensation set forth below which includes all present and future, State, Federal, and local, sales, use, excise and transportation taxes, and all other taxes pertaining to the transaction:

LUMP SUM AMOUNT $_____

BOND: (Not Required)

LIQUIDATED DAMAGES: None. Article 31 of the General Terms and Conditions hereof is inapplicable and is hereby deleted.

LOCATION OF WORK: New South Area of Owner's Middletown Works, Middletown, Ohio.

WORK TO COMMENCE: Offsite work as of the date of acceptance of this Proposal/Sub-Contract with field work to commence on date specified in Contractor's Notice to Proceed which is anticipated to be July 8, 1967.

WORK TO BE COMPLETED: Time is of the essence of this Proposal/Sub-Contract and all the work shall be completed by Bidder as soon as due diligence and good practice will permit, but in no event later than 120 calendar days after Contractor's acceptance of this Proposal/Sub-Contract, or such extended completion date as may be applicable in accordance with, and pursuant to, the provisions of Article 15 of the General Terms and Conditions hereof.

FACE SHEET "B"

BLUE, SMALL RED, ORANGE

LICENSES OF SUB-CONTRACTOR: Bidder shall indicate by completing the blank spaces provided below that it holds valid license(s) of the proper classification under Contractor's License Laws of the State of Ohio to perform the work proposed:

License(s) No.(s)	Classification(s)
_____	_____
_____	_____

The offer expressed by Bidder in this Proposal/Sub-Contract shall be binding upon Bidder for a period of sixty (60) days from the date of Proposal/ Sub-Contract and may be accepted any time on or prior to said date.

Signed: _____

_____

_____

By: _____

Title: _____

Indicate whether Bidder is a Corporation, an Individual, or a Partnership. If Partnership, give names of Partners.

_____ Corporation _____ Partnership

_____ Individual Names of Partners: _____

_____

_____

ACCEPTED THIS DAY OF

KAISER ENGINEERS, INC.

Agent for Armco Steel Corporation
(Contractor)

BY: _____

TITLE: _____

FACE SHEET "C"

EXHIBIT "A"

PLANS, DRAWINGS AND SPECIFICATIONS

The following Scope of Work Specifications and the following attached Standard Specifications and Drawings are hereby incorporated:

A. SCOPE OF WORK SPECIFICATIONS:

The Work encompasses the following, all in accordance with Item B - Standard Specifications, and as shown on Item C - Drawings:

1. Perform all necessary pipefitters' work to install and test the piping systems delineated on the drawings and do the work of additional crafts as required except the work of electricians, millwrights, painters, insulators, and sheetmetal workers since these crafts will be provided by Contractor as stated in Exhibit "B" hereof.

2. Start the FCWR and FCWS Piping Systems (Drawing No. 637657) at the first joint above ground elevation 106'-6" (approximately).

3. Perform all work shown on Drawing No. 638033 above elevation stated "By Others". All other work shown on this drawing is "By Others". Install all Bosh Collection troughs.

4. Perform the work in accordance with the following conditions:

   (a) Pickling to be done after installation; the only piping to be furnished to Sub-Contractor in a pre-pickled condition is oxygen piping.

   (b) Work in close coordination with crafts of Contractor and other sub-contractors.

   (c) Pipe will be furnished in 40 feet random lengths

   (d) Welding to be in conformity to the following:
      1. All steam, condensate, and oxygen piping must be welded using the uphill method, except where a procedure for semi-automatic (MIG) welding has been qualified, downhill welding will be accepted if it is part of the qualified procedure. Two inch diameter and under will be socket weld, two and one-half inch and larger oxygen piping will have backing rings on all butt weld joints.
      2. Downhill welding will be acceptable on water systems where operating pressure does not exceed 205 PSI, compressed air piping up to 150 PSI, and natural gas piping up to 60 PSI.

A. SCOPE OF WORK SPECIFICATIONS - continued

4.(d) continued

3. Cause for rejection under the downhill welding procedure method would be any of the following:
   a. One opening ¼" long, 1/16" deep, or an accumulated total of ¼" length, 1/16" deep in one test strip.
   b. Slag inclusion in excess of 1/8" in any one test strip or an accumulation of 3/4" of slag inclusion in a set of 4 test strips from one test set up.
   c. Excessive gas pocket or porosity.

(e) Well water piping 4" and under will have screwed joints. Larger diameter well water piping will have Dresser fittings, fabricated and galvanized.

B. STANDARD SPECIFICATIONS (Armco Standards all dated March 16, 1966, except ACS 400-34):

1. Armco Standard Specification No. ACS 400-01 - "Piping General".
2. Armco Standard Specification No. ACS 400-03 - "Piping Steam 165 PSIG".
3. Armco Standard Specification No. ACS 400-05 - "Piping Water Drinking 150 PSIG".
4. Armco Standard Specification No. ACS 400-06 - "Piping Water Contaminated 150 PSIG".
5. Armco Standard Specification No. ACS 400-12 - "Piping Compressed Air".
6. Armco Standard Specification No. ACS 400-13 - "Piping Oxygen", as modified by attached Project Deviation No. 10 (May 3, 1967)
7. Armco Standard Specification No. ACS 400-22 - "Piping - Oil - Fuel".
8. Armco Standard Specification No. ACS 400-14 - "Piping Natural Gas".
9. Armco Standard Specification No. ACS 400-15 - "Coke Oven Gas".
10. Armco Standard Specification No. ACS 400-32 - "Piping Grease Systems", as modified by attached Proj. Dev. No. 7 (April 21, 1967)
11. Armco Standard Specification No. ACS 400-34 - "Piping - Cleaning and Pickling", dated April 12, 1967
12. Project Deviation No. 1 dated October 18, 1966, (applicable to all Armco Standards)
13. State of Ohio for Welding - Section IX, latest issue.
14. Edition of State of Ohio Bulletin 214 - "Installation of Pressure Piping". (latest edition)

C. DRAWINGS

Dwg. No.	Rev. No.	Description
601308	12	Piping Legend
601697	2	Master Material List - Valve Code
631595	0	48" x 96" Slabbing Mill - Steam Mains - Plot Plan
631599	3	48" x 96" Slabbing Mill - Service Piping Plan and Section - Col. E 18.4a to E 15.5a
631601	4	48" x 96" Slabbing Mill - Service Piping Plan Section - Col. E 2.5a to E 9.5a
637001	2	General Plan - West Half
637002	2	General Plan - East Half
637650	1	Soaking Pit Facilities - Compressed air Flow Diagram
637651	4	Soaking Pit Facilities - Oxygen & Natural Gas Systems - Flow Diagram
637652	0	Soaking Pit Facilities - Service Piping at Car Thaw Pits - Plan and Sections
637653	0	Soaking Pit Facilities - Service Piping Details - Plan and Sections at Col. W-20 and X-20
637654	0	Soaking Pit Facilities - Service Piping Arrangement Plans and Sections at Cols. 3.5X, 9.5X, 18X and 10.4Y
637655	3	Soaking Pit Facilities - Service Piping - General Arrangement - Plan - Sheet No. 1
637656	3	Soaking Pit Facilities - Service Piping - General Arrangement - Plan - Sheet No. 2
637657	2	Soaking Pit Facilities - Service Piping - Details
637658	2	Soaking Pit Facilities - Service Piping - Details
637659	2	Soaking Pit Facilities - Service Piping - Details Sheet No. 1
637660	2	Soaking Pit Facilities - Service Piping - Details Sheet No. 2
637661	1	Soaking Pit Facilities - Piping - Furnace Cooling Water Return - Partial Plans
637662	1	Soaking Pit Facilities - Piping - Furnace Cooling Water Return - Sectional Elevations
637663	1	Soaking Pit Facilities - Piping - Furnace Cooling Water Return - Details - Sheet No. 1
637669	3	Soaking Pit Facilities - Sump Pump Piping - Arrangement and Details
637671	1	Soaking Pit Facilities - Skip Hoist & Truck Repair Sump Steam Syphon Piping - Plans and Elevations Sections
637672	7	Soaking Pit Facilities - Plumbing, Htg. & Vent. Toilet Rooms, 1 & 2 Plan, Isometrics & Details
637673	0	Soaking Pit Facilities - Piping - Furnace Cooling Water Return - Details - Sheet No. 2

C. DRAWINGS continued

Dwg. No.	Rev. No.	Description
637674	0	Soaking Pit Facilities - Service Piping Details Plans and Sections at Col. X-1 through 2.5
637679	0	Soaking Pit Facilities - Ingot Buggy Drive House Plant Air and Bulk Grease Systems - 5M-2 and 5M-3, Plan, Sections & Details
637680	0	Soaking Pit Facilities - 3" Bulk Grease Tie In Booster Pump Detail - Bulk Grease Service Drop Coke Breeze Col. V and Skip Hoist

THE FOLLOWING DRAWINGS ARE INCLUDED FOR REFERENCE PURPOSES:

638033	5	Six (6) Four Pit Batteries - Ingot Ht'g Fce's. Fuel Gas Piping - Elevation & Section
638035	2	Soaking Pits - Six (6) Four Pit Batteries - General Arrangement - Fuel Oil & Steam Piping Sections
638036	0	Soaking Pits - Six (6) Four Pit Batteries - Plan Cooling Water Piping
638037	0	Soaking Pits - Six (6) Four Pit Batteries - Sections - Cooling Water Piping
638038	1	Soaking Pits - Six (6) Four Pit Batteries - General Arrangement Fuel Oil & Steam Piping - Sections, Details & Bill of Material
638048	0	Soaking Pits - Six (6) Four Pit Battery - Compressed Air Piping - Plan
637244	5	Soaking Pits - Mezzanine Floor Framing - Plan Sheet 1 of 2
637245	6	Soaking Pits - Mezzanine Floor Framing - Plan Sheet 2 of 2

EXHIBIT "B"

ITEMS TO BE FURNISHED BY CONTRACTOR OR OTHERS

1. All required pipe, fittings, valves, and pumps as presently stored on the site.

2. All required pipe support material and catalog pipe hangars as presently stored on site.

3. Potable water at designated points by the Contractor.

4. Electric power - 440 volt, 3 phase and 120 volt single phase at Contractor's distribution panel in immediate vicinity of Soaking Pits.

5. Sanitary facilities at points designated in Soaking Pits.

6. All painting and insulation; and all electricians', millwrights' and sheetmetal work.

7. All Bosh Collection troughs. (Reference Drawing No. 637661)

8. Necessary excavation and backfill for underground piping to Ingot Buggy Drive House.

9. Necessary fluids for testing except oil free nitrogen.

10. All embedded piping in place.

EXHIBIT "C"

GENERAL WORK SCHEDULE

It is anticipated that the Sub-Contractor can commence work immediately after award (approximately August 15, 1967).

All work will be completed within 120 calendar days after award. Within thirty(30) days after the award of the sub-contract, the Sub-Contractor shall submit to the Contractor, for approval, the scheduling documents indicated below:

1. A bar chart of CPM or scheduling type in detail acceptable to the Contractor, and indicating the schedule and durations of all major installation activities to be performed.

2. Manloading schedule from start to completion in curve or tabular form indicating the anticipated manpower by crafts and by months consistent with the above schedule.

These two documents when approved shall comprise "The schedule set forth herein" as referred to in paragraph B of Article 12 - "Performance of Work" of General Terms and Conditions.

In accordance with Article 9, Sub-Contractor shall provide a daily force report containing the craft breakdown for all craftsmen present and working, including foreman, general foreman, number on payroll, number present, number absent, number of supervisory personnel, number of engineering personnel, and number of clerical personnel.

Periodic scheduling meeting will be held with Sub-Contractor and Contractor's representative present to discuss progress and detail scheduling, coordination, and integration of the work.