

UNION IRON WORKS
SUBSIDIARY OF RILEY STOKER CORPORATION
ERIE, PENNSYLVANIA 16512



STEAM GENERATING AND
PROCESS HEATING EQUIPMENT

PROPOSAL-CONTRACT

To: Southwestern Oil & Refining Company
P. O. Drawer 809
Corpus Christi, Texas
Atten: Mr. F. E. Kemp, P. A.

No. TA-52967

Date May 29, 1967

For: Corpus Christi Plant
Package Boilers

The UNION IRON WORKS (hereinafter called the Company) proposes to furnish to the Purchaser, in accordance with the following specifications and general conditions, the machinery, material and/or equipment (hereinafter referred to as "equipment") and/or services hereinafter described.

- One (1) - UNION 125,000 PPH Type "MH" Steam Generating Unit.
- One (1) - UNION Centrifugal Type Steam Purifiers
- One (1) - UNION Drainable Superheater
- One (1) - Sturtevant Forced Draft Fan
- One (1) - UNION Steel Finned Tube Economizer
- One (1) - Set of Connecting Gas and Air Ducts
- One (1) - Set of Peabody Natural Gas Burners and Accessories
- One (1) - Set Ladders and Platforms for front Drum Access, Rear Drum Access and Economizer Access
- One (1) - Set Split Dampers for Superheat Control
- One (1) - Set of Drum End Covers and Safety Valve Covers.

Services of Erection Superintendent on Per Diem Basis.

Services of Engineer to Advise and Consult During the Start-up on a Per Diem Basis.

Guadalupe Banda
Cause No. 67-3792-C

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SPECIFICATIONS

"UNION" BENT TUBE BOILER

Type "MH"

(1) CAPACITY	PRESSURE	DIMENSIONS	WEIGHT
Rated Capacity per Boiler-----	125,000		Lbs. Steam/Hr.
Maximum Allowable Working Pressure At Boiler Nozzle-----	475		psig
Summary of Heating Surface:			
Main Bank-----	8350		Sq. Ft.
Water Cooling - Side Wall-----	630		Sq. Ft.
Water Cooling - Rear Wall-----	37		Sq. Ft.
Water Cooling - Floor-----	181		Sq. Ft.
Total Heating Surface-----	9198		Sq. Ft.
Boiler Dimensions:			
Furnace Width Between Tubes-----	6'-11-1/4"		
Furnace Length-----	27'-3-1/8"		
Vertical Drum Centers-----	12'-6"		
Furnace Volume, Approximately-----	1642 Cu. Ft.		
Wall Thickness: Side-----	2"		
Front-----	4" and 13"		
Rear-----	9"		
Floor-----	5" Plus Floor Tubes		
Roof-----	2"		
Overall Casing Width-----	12'-8"		
Overall Casing Length-----	29'-1-1/8" Inside		
Height Bottom Support to Face of Boiler Outlet Flange-----	15'-7-5/16"		
Proposal Drawing No.-----	HTS-1910 & 1910A		
Estimated Shipping Weight, Lbs.-----	150,025 Heaviest Lift		
Total Weight - Approximately-----	168,700 Pounds		

(2) BOILER CONSTRUCTION CODES

Each boiler and all accessories to be furnished under these specifications shall fully comply with all requirements for materials, workmanship and construction prescribed by the latest edition of the Boiler Code of The American Society of Mechanical Engineers and applicable State, Province or area regulations.

(3) DRUMS

	Upper	Lower
No. per Boiler-----	1	-- 2
Nominal Diameter-----	42" I.D.	-- 18" O.D.
Overall Length -----	30'-9-1/8"	-- 30'-4-3/8"
Shell Thickness-----	1-5/16"	-- 3/4"
No. Manholes 12" x 16" Elliptical -----	2	-- 0
No. Handholes 3-1/2" x 4-1/2" Elliptical--	0	-- As Required
Material Spec.-----	SA-515, Grade 70 or Equivalent	-- SA-106-B

Top drum heads shall be flanged and dished type, and each shall have a flanged manhole opening, fitted with a forged steel hinged cover plate with double steel yokes, bolts and gasket. Flanges of manhole openings and cover plates shall be machined to give plane parallel bearing surfaces for the manhole gaskets. The lower drums shall have flat heads with a handhole in each head. All drum seams shall be fusion welded.

All plates, heads and lower drum tubing shall be of first quality open hearth steel conforming to A. S. M. E. material specifications. The Company reserves the right to furnish material that is the equivalent of that specified above if necessary.

(4) TUBES- Seamless

Diameter-----	2" O.D.	No. Wide---	14
Wall Thickness-----	.105	No. Deep---	79 and 157
Type-----	SA-83		

* Tubes in furnace are tangent.

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(5) DRUM OPENINGS

All drum openings shall be in accordance with the ASME Code,
or American Standard pipe thread connections, as noted below:

Description	Location	Number & Size	Type
Steam Outlet-----	Upper Drum--	Superheater Supply as required by	--
Safety Valve -----	Upper Drum--	ASME Code	-- Flanged
Feed Inlet -----	Upper Drum--	1 - 4"	-- Flanged
Blow-off-----	Lower Drum--	2 - 1"	-- Flanged
Water Column -----		2 - 1-1/4"	-- Flanged
XXXXXXXXXXXX -----			--
Feed Water Regulator -----		2 - 1"	-- Flanged
Cont. Blow-Down -----		1 - 1"	-- Flanged
Chemical Feed -----		1 - 1"	-- Flanged
& Steam Sampling			
Boiler Vent-----		1 - 1-1/2"	-- Flanged
(In Superheater Header Loop)			
Steam Gauge-----		1 - 1"	-- Flanged
Auxiliary Steam-----		1 - 2"	-- Flanged
Acid Cleaning - In Superheater Header-		1 - 1-1/2"	-- Flanged (Blanked Off)

(6) ACCESS DOORS, INSPECTION DOORS AND OBSERVATION PORTS

The Company shall furnish and install the following doors and
ports.

Designation	No.	Size	Description
Air Cooled	-- Std.	-- 4"x5-1/2"	-- Observation Ports
Observation	--	--	-- Dwg. SK-616-0
Furnace Access	--	--	-- Through Burner Opening.

Guadalupe Banda
Cause No. 67-3762-C

(5) DRUM OPENINGS

All drum openings shall be in accordance with the ASME Code,
or American Standard pipe thread connections, as noted below:

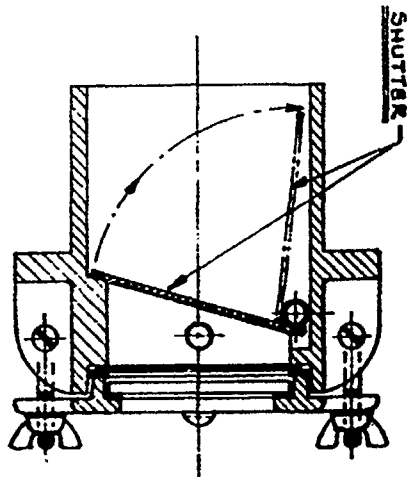
Description	Location	Number & Size	Type
Steam Outlet-----	Upper Drum--	Superheater Supply as required by	--
Safety Valve -----	Upper Drum--	ASME Code	-- Flanged
Feed Inlet -----	Upper Drum--	1 - 4"	-- Flanged
Blow-off-----	Lower Drum--	2 - 1"	-- Flanged
Water Column -----		2 - 1-1/4"	-- Flanged
XXXXXXXXXXXX -----			--
Feed Water Regulator -----		2 - 1"	-- Flanged
Cont. Blow-Down -----		1 - 1"	-- Flanged
Chemical Feed -----		1 - 1"	-- Flanged
& Steam Sampling			
Boiler Vent-----		1 - 1-1/2"	-- Flanged
(In Superheater Header Loop)			
Steam Gauge-----		1 - 1"	-- Flanged
Auxiliary Steam-----		1 - 2"	-- Flanged
Acid Cleaning - In Superheater Header-		1 - 1-1/2"	-- Flanged (Blacked Off)

(6) ACCESS DOORS, INSPECTION DOORS AND OBSERVATION PORTS

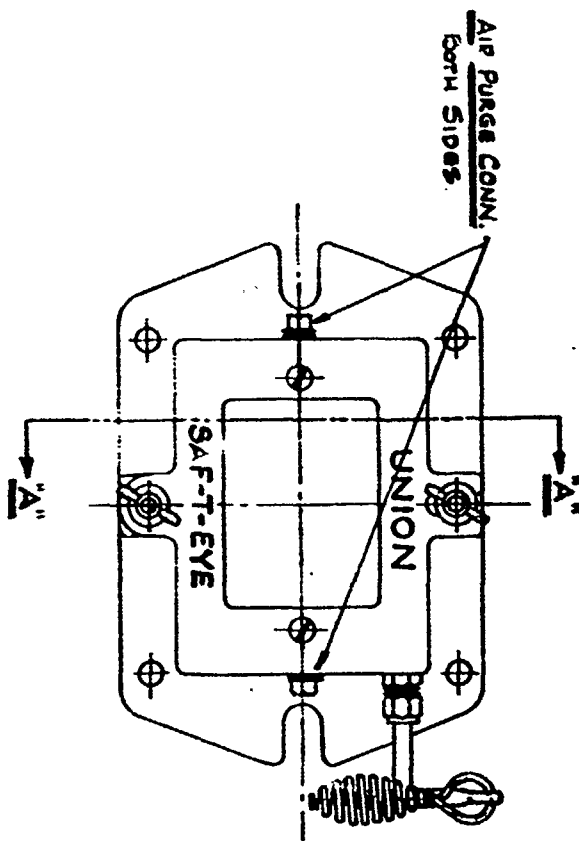
The Company shall furnish and install the following doors and
ports.

Designation	No.	Size	Description
Air Cooled	-- Std.	-- 4"x5-1/2"	-- Observation Ports
Observation	--	--	-- Dwg. SK-616-0
Furnace Access	--	--	-- Through Burner Opening.

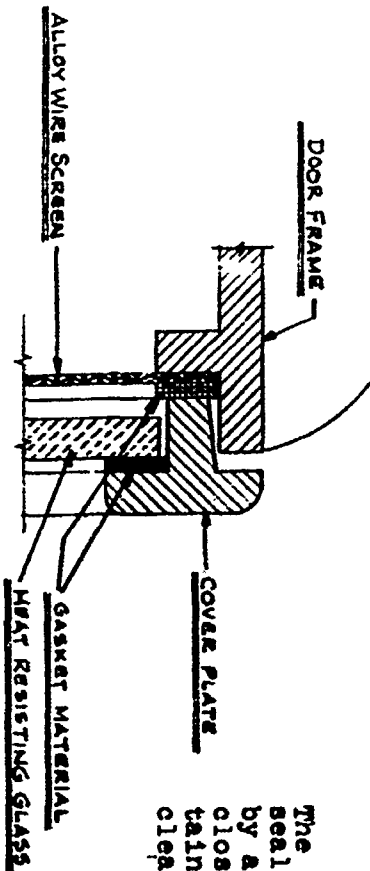
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SECTION @ "A-A"



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ENLARGED DETAIL @
COVER PLATE

The UNION "Saf-T-Eye" observation port is completely sealed into the furnace wall. The glass is protected by an alloy wire screen. A shutter automatically closes the port when not in use. The glass is contained in a frame which can be readily removed for cleaning by merely loosening two thumb nuts.

UNION IRON WORKS
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4'x5 1/2' OBSERVATION PORT

DM 6-1-60 5K-616-0

(7) VALVES AND TRIM

The Company shall furnish with each boiler the following Valves and Trim, or those of equal quality, at the option of the Company

	NO.	SIZE	MAKE, FIG. NO. DESCRIPTION
Safety Valve-----	1	2-1/2"	Cons. #1811LA
Safety Valve-----	1	2"	Cons. #1811K
Feed Valve-----	1	4"	Edward #618
Feed Valve-----	1	4"	Edward #690
Blow-off Valve -----	3	1"	Yarway #5925F
Blow-off Valve -----			
Water Column-----	1	1-1/4"	Magnetrol W-601X
Water Gage -----	2	3/4"	Reliance SG-860
Gage Glass -----	2	3/4"	Reliance FG-909
Illuminators - Gage Glass -----	2	{ 1 1	Direct Vision Ill. Assembly Direct Vision, Hood, Ill.
Water Column Drain -	1	3/4"	Floor Stand & Mirror Edward 848Y
Water Gage Drain----	2	3/8"	Edward 848Y
Steam Gage -----	1	12"	Ashcroft #1377A
Boiler Vent Valve----	1	3/4"	Edward 848Y
W.Col.Isolation Valve	2	1-1/4"	Hancock 970W-WC
Cont. Blowdown Valve	1	1"	Hancock 5525F
Chemical Feed Valve	1	1"	Edward 4152
<u>Superheater Trim:</u>			
Steam Sampling	1	3/8"	Edward 848
Drain Valve	1	1-1/2"	Edward 828
Safety Valve	1	1-1/2"	Consd.
Thermometer & Well	1		Trerice BX-13406
Steam Gage	1	8-1/2"	Ashcroft 1377A
<u>Economizer Trim</u>			
Relief Valve	1	1-1/2"	Cons.#1912-30GC
Vent Valve	1	3/4"	Edward #848Y
Drain Valve	1	3/4"	Edward #848Y
Thermometer & Well	1	3/4"	Trerice BX-13406

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(8) PIPING

The Piping for connecting the following Valves and Trim to the boiler shall be furnished by the Company and installed by the Company

If the Piping for connecting Valves and Trim to the boiler is furnished by the Company, it shall conform to the requirements of the ASME Code, and consist only of the items listed below:

Piping for	Extent of	
Water Column -----	Water Column ---- to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings
Water Column Drain-----	Water Column ---- to Floor	Sch. 80 Smls. Steel Pipe Steel Fittings
Steam Gage-----	Steam Gage----- to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings
Blow-Off Valve -----	Valves to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings

When the Company is to furnish, but not install, the connecting Piping, it shall be in random, unthreaded lengths.

(9) BAFFLES

The baffle between the furnace and the convection section shall be formed by a tangent row of tubes.

(10) PAINTING Boiler and Accessories to be shipped unpainted.
No outside surface preparation included.
~~All materials must be painted and primed in accordance with the requirements of the ASME Code prior to shipment.~~

(11) TEST

Before shipment, all drums shall be tested and made tight under hydrostatic pressure, 50% greater than the allowable working pressure of the boiler.

(8) PIPING

The Piping for connecting the following Valves and Trim to the boiler shall be furnished by the Company and installed by the Company

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Blow-Off Valve -----	Valves to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings

When the Company is to furnish, but not install, the connecting Piping, it shall be in random, unthreaded lengths.

(9) BAFFLES

The baffle between the furnace and the convection section shall be formed by a tangent row of tubes.

(10) PAINTING Boiler and Accessories to be shipped unpainted.

No outside surface preparation included.
~~All outside surfaces shall be sand blasted and primed with zinc rich paint prior to shipment.~~

(11) TEST

Before shipment, all drums shall be tested and made tight under hydrostatic pressure, 50% greater than the allowable working pressure of the boiler.

(12) SHOP ASSEMBLED SHIPMENT

The Company shall assemble the boiler unit, prior to shipment, including tubes, drums, refractories, baffles, tile, insulation, burner front, windbox, burners and steel casings.

The front wall in the furnace section shall consist of 9" of fire brick and 4" of high temperature block insulation covered by the burner front and windbox.

That portion of the front wall which is not covered by the windbox and is backed up by the boiler tubes, shall consist of 2" of tile laid up in high temperature cement, 2" of block insulation and a No. 10 Ga. steel casing.

The rear wall shall consist of two layers of 2" shiplap refractory tile, laid up in high temperature cement, 3" of high temperature block insulation and a No. 10 Ga. steel casing.

The furnace floor shall consist of 1-1/2" of plain edge tile above the tubes, 3" of insulating castable refractory, Decrete #30, and a 3/16" reinforced steel supporting plate. This plate will be properly reinforced and fabricated to carry the floor load and to seal the setting against any leakage.

The side and top walls of the boiler shall be constructed of tangent tubes, covered with two layers of 1/4" asbestos millboard, 2" of insulation and a No. 10 Ga. steel casing.

The exposed straight portion of the top drum shall be covered with 2" of blanket insulation and a No. 12 Ga. steel casing.

The casing shall be constructed of reinforced flanged panels with all joints seal welded to form a pressure tight enclosure.

The boiler uptake area including transition to economizer, and the economizer proper shall be insulated and finished with a No. 10 Ga. casing. The inside surface of the drum end covers shall be insulated.

External insulation by Purchaser - Exposed portion of superheater and supply header, economizer headers, trim piping and valves and upper front drum head.

(13) CENTRIFUGAL TYPE STEAM SEPARATOR

The Company shall furnish and install, in the top steam drum of the boiler, one (1) UNION Centrifugal Type Steam Purifier designed to give steam of high quality, to take up a minimum of space, and allow easy access for maintenance. External drains are provided for the purifier including piping per Sketch Page 8A

Guardtype Bands
Circle No. 67-5700-C

UNION DRAINABLE SUPERHEATER

The Company shall furnish and install, in the boiler unit, one (1) UNION seven-tube, bare tube, drainable type superheater.

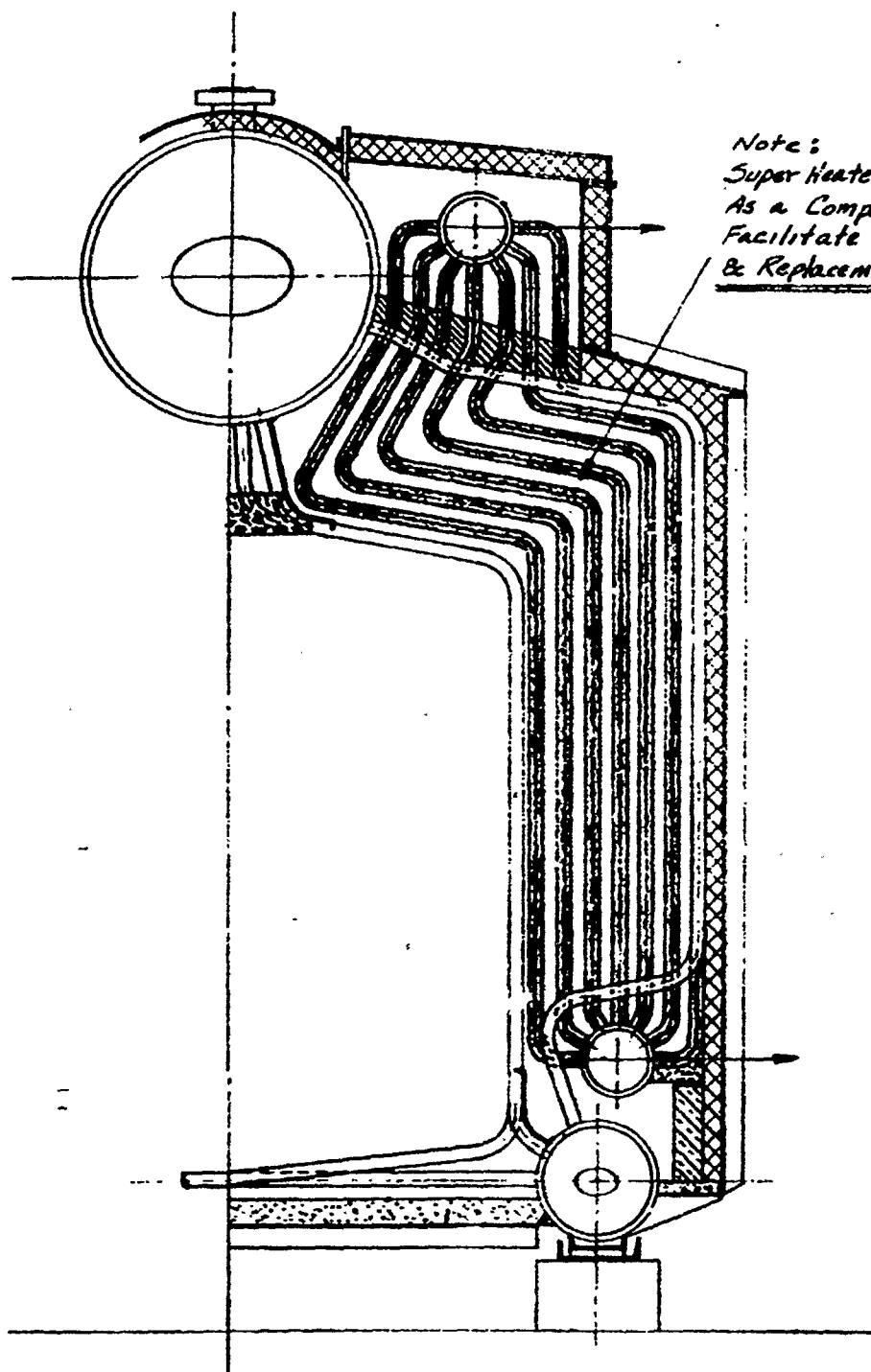
The superheater shall be designed for 475 psig pressure and 600 deg. F. total temperature, plus or minus 10 deg. F. when operating at 425 psig pressure at the superheater outlet and 125,000 pounds of steam per hour maximum continuous rating when being fired with fuel gas as specified and having a feedwater temperature of 240 deg. entering the economizer.

The Company shall include all pressure parts from the drum outlet to the superheater inlet header, necessary supports for the elements and their required spacers, as well as all refractory seal material, outlet header, all completely assembled in each boiler unit.

The Company shall include one (1) inlet header and one (1) outlet header, each 10-3/4" O.D. x 3/4" wall, the outlet header being fitted with an 8" Series, 600 pound raised face flange.

The required sections in the superheater will consist of 2" O.D. by .150" wall thickness seamless specification SA-210.

Approximate heating surface is 785 square feet.



Note:
Super Heater Is Removable
As a Complete Unit To
Facilitate Tube Removal
& Replacement.

TYPICAL SUPER HEATER ON "MH" BOILERS
(DRAINABLE TYPE)

Graduate Band
Course No. 97-9793-C

UNION IRON WORKS
ERIE, PA.

DM 1/2 DNG. NO. SH-1162

FORCED DRAFT FAN

The Company shall furnish for the unit, for installation by others, one (1) Sturtevant #4040 air foil, single width, single inlet fan built in Arrangement No. 3 with anti-friction bearings mounted on independent pedestals and sole plates. Fan built for 10% turbine trip out.

The fan will be complete with inlet screens, inlet vane control, clean-out door and shall be arranged for direct connection through a Thomas, or equal, flexible coupling to a drive to be furnished by the Purchaser.

Performance Information on Fan:

Steam Load, PPH	62,500	100,000	125,000	Test Block
Lbs. Air/Hr.	65,000	104,000	131,600	151,200
Air Temp. (°F.)	80	80	80	105
Static Pressure	4.15	10.62	16.34	21.60
CFM	14,750	23,600	29,800	36,000
Fan RPM (Vane Control)	1,770	1,770	1,770	1,770
BHP (Vane Control)	58.0	80.0	106.0	143.0

CONNECTING GAS AND AIR DUCTS

The economizer shall be mounted directly above the boiler gas outlet shown on drawings STS-1910A, and the duct system shall include the following:

Cold air duct connecting forced draft fan to windbox.

Hot gas duct connecting the boiler to the economizer.

All ducts shall be constructed of 3/16" plate with T-bars reinforcement.

Velocities will be as specified. Access doors and expansion joints, where required, are included.

Guadalupe Banda
Case No. 87-5733-C

LADDERS, PLATFORMS AND WALKWAYS

The Company shall furnish and install where possible, prior to shipment, on the boiler unit, a steel ladder, platform, cage and rail guard essentially as shown on drawing BTS-19104 for front and rear drum manhole, economizer and steam drum access.

All joints to be continuously welded.

The complete complement of platforms, ladders and walkways shall be galvanized.

Guadalupe Banda
Case No. 07-5703-G

SERVICES OF ENGINEERS

The Company shall furnish the services of a Factory Engineer for the purpose of checking the completed installation for correctness, for the purpose of advising during the initial adjusting of burner and controls (if furnished) and for the purpose of consulting with and advising the customer's employees during the start-up period at a per diem rate of \$100.00 per day plus travel time and travel expense.

Should a superintendent of erection be required for supervision of field installation work and supervision of boil-out, drying out and testing, these services can be provided for by the Company at an additional charge of \$100.00 per day per man as required. Operation, insurance requirements and fuel are the responsibility of the Purchaser.

George H. Benda
Case No. 97-3733-C

CONDITIONS OF PROPOSAL

1. The Company has not included any Federal Excise, State or local taxes as brought out on Sheet PC-124 enclosed with this proposal.
2. The services of an erection superintendent and services of an engineer to advise and consult during the start-up have been quoted on a per diem basis.
3. Combustion controls and instruments by the Purchaser.
4. Fan drives by Purchaser.

Guadalupe Banda
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STANDARD GENERAL PERFORMANCE FORM

Performance data for the equipment covered, are submitted herewith and made a part of this proposal in the standard form recommended by the AMERICAN BOILER MANUFACTURERS ASSOCIATION AND AFFILIATED INDUSTRIES.

CONDITIONS.

The performance data herein are based on the conditions as stated in Pars. 1 to 6 incl.

1. The general arrangement of equipment furnished by the COMPANY, and the general design and arrangement of related equipment furnished by others, shall be not less favorable than indicated below:

The equipment shall have been erected in accordance with the COMPANY's plans and specifications, properly maintained and operated by the PURCHASER, and shall be in operating condition satisfactory to the COMPANY. The heat absorbing surfaces shall be clean inside and out.

~~2. There shall be sufficient draft available at the boiler outlet to dispose of the maximum product of combustion evolved at the rating specified, and in addition, sufficient draft to draw smoke at the maximum of the first pass of the boiler, and to secure an excess of air at a point immediately in front of the boiler, to insure that which the combustion gases leave the furnace and the furnace shall be sufficiently tight so as to prevent the loss of air or gas from the furnace or boiler.~~

2. (Alternate for Pressure Firing when Forced Draft Fan furnished by Purchaser). There shall be sufficient forced draft fan capacity available to provide the necessary air for combustion at a pressure at the burner windbox required to overcome all of the resistance through the unit including the breeching and stack. Means shall be provided to control the furnace pressure and the supply of air at minimum ratings.

~~2. (Alternate for Pressure Firing when Forced Draft Fan furnished by Purchaser). There shall be sufficient forced draft fan capacity available to provide the necessary air for combustion at a pressure at the burner windbox required to overcome all of the resistance through the unit including the breeching and stack. Means shall be provided to control the furnace pressure and the supply of air at minimum ratings.~~

3. Ambient air conditions:

Temperature of boiler room air, deg. F. 80
Relative humidity of boiler room air, per cent. 60
Barometric pressure, in. Hg. 29.921
Weight of water per lb. of air, lb. 0.013

Glenn H. Banta
Case No. 57-5753-C

4. The fuel characteristics shall not be less favorable than indicated by the following analyses:
FUEL (As Fired) (Dry)

Source of Analyses				Kind			
Company Standards				Gravity *A.P.I.			
				Required Viscosity at Burner			
				Oil Press. at Burner lb./sq. in.			
				Steam Press. at Burner lb./sq. in.			
Kind				Kind			
A.S.T.M. STANDARD D-388-38		Class		Natural Gas *			
		Group		Sp. Gravity Relative to Air			
				.58 @ 60 deg. F.			
SOURCE		Mine		Gas Pressure at Burner in. Hg			
		Seam		15 PSIG Min.			
		District		Gas Temp. at Burner *F.			
		County		60 Deg.			
		State					
Size				Fuel			
Grindability				Natural Gas			
Surface Moisture Per cent				Per cent By			
PROX. ANALYSES Per cent		Moisture		Volume			
		Vol. Matter		Ash			
		Fixed Carbon		S			
		Ash -		H ₂			
		Total		C			
ASH TEMP. Deg. F.		() Reducing () Oxidizing		CH ₄			
		Initial Def.		85.0			
		Softening		C ₂ H ₄			
		Liquid		C ₂ H ₆			
				4.0			
Ash Per cent				CO			
				CO ₂			
				SO ₂			
				H ₂ O			
				N ₂			
				O ₂			
				TOTAL			
				100.00			
				Btu/lb.			
				HHV 20,350			
				Btu/cu. ft. at 60° F. 30 in. Hg.			
				HHV 1059			

UNION IRON WORKS
P-C 103

PROPOSAL-CONTRACT

*Above fuel used for Performance Calculations
actual fuel will vary from 850 BTU/SCF
to 1200 BTU/SCF. Burners will be
drilled for 1000 BTU/SCF.

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Contract No. 67-5703-G

D&E 00770

AMERICAN BOILER MANUFACTURERS ASSOCIATION AND AFFILIATED INDUSTRIES

5. OPERATING CONDITIONS.

	<u>BASE BID</u>		
Actual Evaporation—lb. per hr.	62,500	100,000	125,000
Rating—per cent	.....	.....	.....
Heat Output—kB/hr.	.....	.....	.....
Pressure at <u>Suphtr.</u> outlet, lb. per sq. in.	425	425	425
Steam Temp. at <u>Suphtr.</u> outlet, deg. F.	585	595	600
Fuel Temp. entering <u>Economizer</u> deg. F.	240	240	240
Blow-down (lb. of water per hr.)	.....	.....	.....
Temperature of air leaving air heater, deg. F.	.....	.....	.....
Gas Temp. leaving <u>Economizer</u> deg. F.	291	320	343
CO ₂ excess air in gas leaving furnace, per cent	10.0	10.0	10.0
CO ₂ excess air in gas leaving <u>Economizer</u> per cent	10.0	10.0	10.0
Gas Temp. Lvg. Blr., Deg. F.	570	592	631
Air Temp. to Blr. Deg. F.	80	80	80
Air Entering Blr., PPH	65000	104000	131000
Gas Lvg. Blr., PPH	68500	109600	138200

6. HEAT LOSSES - PER CENT.

Dry Gas	3.70	4.20	4.59
Hydrogen and Moisture in Fuel	10.81	10.91	11.00
Moisture in Air	.10	.11	.12
Unburned Combustible	.....	.....	.....
Radiation	.90	.60	.48
Unaccounted For	.....	.....	.....
Manufacturer's Tolerance	1.00	1.00	1.00
Total Heat Loss	16.41	16.82	17.19
Efficiency - % (HHV)	83.59	83.18	82.81

GENERAL.

7. It is recognized that the performance of the equipment covered in this proposal cannot be exactly predicted for every possible operating condition. In consequence, any predicted performance data submitted are intended to show probable operating results which may be closely approximated but which cannot be guaranteed except as expressly stated in the guarantee clause or clauses in this proposal.

8. Any performance curves submitted are for the PURCHASER'S convenience and the performance indicated thereon is not offered by the COMPANY, nor to be construed by the PURCHASER, as a proposal or contract obligation.

Guadalupe Banda
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AMERICAN BOILER MANUFACTURERS ASSOCIATION AND AFFILIATED INDUSTRIES

TESTS.

9. Performance tests — if required — shall be run within 30 days after the PURCHASER shall have received notice from the COMPANY that the equipment furnished is ready for testing, it being understood that the COMPANY may require preliminary tests. Tests shall be conducted only on one representative unit mutually agreed upon by the PURCHASER and the COMPANY. The PURCHASER, at his own expense, shall make all preparations, furnish all operating and testing personnel and incur all expenses connected with such tests, and shall give to the COMPANY at least 15 days' notice of the date or dates on which tests will be made.

The COMPANY's representative shall have access to the records at all times, and the test shall be conducted in a manner to satisfy the COMPANY that the specified performance conditions are being maintained. A complete copy of test data and results shall be furnished to the COMPANY.

The equipment shall be considered as accepted if tests show that the guarantees, if made, have been fulfilled, or if the PURCHASER shall fail to have said equipment tested within period mentioned. In case of failure to meet performance guarantees, the COMPANY reserves the right to change or replace the equipment furnished so that guaranteed performance will be obtained.

10. Performance tests — if required — and performance calculations shall be made in accordance with the applicable Short Test Form in the latest edition of the A.S.M.E. Test Code for Stationary Steam Generating Units, and the measure of performance shall be the results of such tests. Performance calculations shall be based on the steam tables in the latest edition of "Thermodynamic Properties of Steam" by Keenan & Keyes.

STANDARD GUARANTEED PERFORMANCE
STEAM GENERATING UNIT OR
BOILERS—WITH OR WITHOUT WATER WALLS

CONDITIONS.

- 1.1 The CO_2 or excess air in gas leaving the furnace shall be determined by sampling uniformly across the width of the furnace. There shall be no delayed combustion beyond the furnace outlet.
- 1.2 The draft loss through the boiler is the draft loss from a point immediately in front of the highest point at which the combustion gases leave the furnace to a point immediately in front of the boiler damper.
- 1.3 *Water:* The condition of the concentrated boiler water shall be such that:
- (a) The total solids do not exceed.....3000.....ppm;
 - (b) The total suspended solids do not exceed.....250.....ppm;
 - (c) The total alkalinity does not exceed.....600.....ppm

~~The condition of the concentrated boiler water shall be such that:~~
~~(a) The total solids do not exceed.....3000.....ppm;~~
~~(b) The total suspended solids do not exceed.....250.....ppm;~~
~~(c) The total alkalinity does not exceed.....600.....ppm~~

Chemicals used for internal treatment should be supplied to the boiler preferably through a separate boiler connection, used exclusively for that purpose, and in such a manner so as to prevent deposits on drum internals which would interfere with proper operation.

1.4 Samples of water for testing shall be taken from the continuous blowdown, if installed, otherwise through a suitably located sampling pipe. Samples shall be taken through a cooling coil to prevent flashing. Sampling and determination of boiler water conditions shall be under the methods contained in ASTM Special Technical Publication No. 148.

1.5 *Responsibility:* The treatment of feedwater and the conditioning of boiler water are beyond the control of the COMPANY. Therefore, the COMPANY shall not be held responsible for damage due to the presence of oil, grease, scale or deposits on the internal surfaces of the equipment; or for damage resulting from foaming caused by chemical conditions of the water; or for damage resulting from corrosion or caustic embrittlement.

The COMPANY shall not be responsible for carryover resulting from the presence of oil, grease or other foam inducing materials.

1.6 *Test Procedure for Solids in Steam:* Samples of condensed steam for determination of solids shall be obtained in accordance with the method specified in the latest edition of ASTM D-1066 entitled Tentative Method for Sampling Steam.

There are two commonly accepted methods for the determination of solids in steam. These are—

1. Electrical conductivity method for dissolved solids.
2. Gravimetric method for total solids.

Because of the normally small difference in the total and dissolved solids, and the complexity, time and degree of skill involved in the gravimetric determination, it is usual to accept the electrical conductivity method of testing.

The electrical conductivity determination of dissolved solids in the condensed steam shall be made in accordance with ASTM D-1125-30 T, Tentative Method on Electrical Conductivity of water. Remove dissolved gases from the sample as completely as possible by mechanical means without contaminating the sample with any added material which will increase its conductivity. The conductivity shall be corrected to compensate for residual ammonia, carbon dioxide or other gases remaining in the sample and the dissolved solids shall be calculated from this corrected conductivity. For measuring performance by the electrical conductivity method, the average of ten determinations made at regular intervals throughout the test period shall be used.

The gravimetric determination of total solids in the condensed steam may be made in accordance with Method A of the latest edition of ASTM D-1069 entitled Tests for Suspended and Dissolved Solids in Industrial Waters, or a similar method embodying the essential principles of that specification. For measuring performance by the gravimetric method, the results shall be expressed as the average of three determinations made upon a composite sample which shall be taken throughout the entire test period.

STEAM GENERATING UNITS

A steam generating unit is defined as a combination of boiler, superheater, air heater and/or economizer.

GUARANTEES

Subject to the conditions specified above and in preceding Standard General Performance Form, the COMPANY makes the following guarantees:—

- 1.7 **Peak Load Capacity** The unit can be operated for a period not exceeding.....hr. at a capacity not exceeding.....lb. of steam per hr., with an interval of not less than.....hr. between each such period.
- 1.8 **Performance at Normal Continuous Capacity** At a capacity of...125,000.....lb. of steam per hr;
- (a) The combined efficiency of the unit will not be less than...82.81.....per cent;
 - (b) The average draft loss through the unit will not exceed...16.34.....in. of water;
 - (c) ~~The maximum steam temperature in the superheater will not exceed 600 F plus or minus 10 F;~~
 - (d) The average temperature of the steam leaving the superheater will be 600.....F plus or minus 10 F;
 - (e) The steam pressure drop between boiler drum and...Auphtx.....outlet will not exceed...32.....lb. per sq. in.;
 - (f) ~~The maximum pressure drop through the economizer will not exceed 10.0 lb. per sq. in.;~~
 - (g) The average water pressure drop through the economizer (not including valves) will not exceed...10.0.....lb. per sq. in.;
 - (h) The total solids in the steam leaving the boiler will not exceed...1.....p.p.m.

Pounds Steam Per Hour	62,500	100,000	125,000
Heat Release BTU/Ft. ³ /Hr. (HHV)	49,300	79,800	100,500
Heat Release BTU/Ft. ² /Hr. (HHV)	94,400	153,000	192,000

GENERAL CONDITIONS

This proposal, including any drawings submitted pertaining thereto, is the property of the Company; it contains confidential information and is loaned to the Purchaser on condition that he and his representatives have, by receiving it, agreed not to, without permission, reproduce or copy it, in whole or in part, or to furnish information from it to others, or to make any use of it that is, or may be, injurious to the Company, and to return it upon request.

DRAWINGS

The Purchaser shall furnish the Company with all information, instructions and drawings requisite to the execution of the work.

The Company shall not furnish any drawings other than such general arrangement drawings as are necessary for the work. The Company shall furnish its drawings promptly and the Purchaser shall check, approve and return one set without delay. If desired the Company shall furnish free of charge not more than five (5) sets of prints of above drawings and five (5) sets of operating instructions. Additional sets of prints or operating instructions, if required, shall be furnished at current prices.

SHIPPING DATE

The shipment of the equipment herein shall start - See accompanying letter (hereinafter called the contract shipping date) after receipt of the acceptance of this proposal, or the final approval of all drawings and contract details, or after receipt of material, whichever date may be the later.

TRANSPORTATION AND DELIVERY

Transportation charges from point of shipment to closest railroad siding to location of installation shall be paid by the Company.

In the event of change in freight rates or taxes thereon prior to delivery, and provided that the contract price includes transportation charges to be paid by the Company, such contract price shall be adjusted to cover the additional or reduced cost to the Company due to such change in freight rates or taxes.

The type of transportation and the routing shall be controlled by the Company. Unloading, hauling and handling between the points of delivery by the transporter and the site of erection shall be done by the Purchaser. If hauling is done by the Company, the Purchaser shall provide railroad siding for use of the Company within 200 feet of boiler site.

LIABILITY FOR DELAYED SHIPMENT OR ERECTION

The Company shall not be liable for any loss or damage resulting from delay in shipment or in erection (if the Company has assumed any obligation with respect to erection hereunder) caused by fires, floods, strikes, riots, thefts or accidents, or any other cause whatsoever beyond the reasonable control of the Company which may delay or prevent delivery or erection of the equipment to be furnished hereunder. In the event of delay in or postponed erection arising from causes beyond the control of the Company, the Purchaser shall protect the equipment against damage from weather and other causes.

The Company shall not be liable in any event for loss of anticipated profits, loss by reason of plant shut-down, non-operation or increased expense of operation of other equipment, or other consequential loss or damage of any nature except as may be herein-after specifically provided.

RESPONSIBILITY

The quality of feedwater and its treatment are beyond the control of the Company. Therefore, the Company shall not be held responsible for damage due to intercrystalline cracking, commonly known as caustic embrittlement, corrosion, scale or other deposits on the internal surfaces of the equipment. The Company shall not be responsible for corrosion of materials caused by the corrosive characteristics of the fuel burned. The Company shall not be liable for any injury to persons, damage to property or consequential damages whatsoever caused by or in any way attributed to the design, operation or mal-functioning of any control equipment or control devices of any kind or nature whatsoever, whether or not furnished by the Company and whether or not operated on suggestions of the Company. It shall be the Purchaser's responsibility to properly operate, care for and maintain in good working condition all control equipment or control devices offered in this Proposal-Contract. Unattended operation is not recommended.

**WARRANTY 1
AND LIMITATION
OF LIABILITY
OF CONTRACTOR**

The COMPANY shall repair or shall replace f. o. b. point of shipment, any parts of said equipment which within one year from date of initial operation are found to be defective in design, workmanship or material and shall repair or replace, on a straight time basis, that portion of the COMPANY's work, found to be defective within said period of one year; provided said equipment is operated and maintained by the PURCHASER in accordance with generally approved practice and in accordance with the conditions of service, if any, herein specified and provided the PURCHASER notifies the COMPANY in writing as soon as such defect becomes apparent. No warranty other than title shall be implied from the manufacture, sale, furnishing or erection of any of the said equipment to be furnished hereunder, or its use, except as may be otherwise specifically provided herein. The liability of the COMPANY arising out of the manufacture, sale, furnishing or erection of the equipment hereunder or its use, whether on warranties or otherwise, shall be limited to the cost of repair or replacement of defective parts on a straight time basis as herein specified, and in no event shall the COMPANY be liable for any loss or damage whatsoever, whether resulting from damage to person or property in any manner, or whether resulting from loss of anticipated profits or otherwise by reason of shut-down or non-operation of the plant; and such liability shall terminate upon the expiration of said one year. Liability of the COMPANY covering such items as valves, fittings, piping, soot blowers, fans, motors, refractories, etc., or any other items not manufactured by the COMPANY shall be limited to guarantees of the respective manufacturers of these items to the COMPANY. The COMPANY shall not be responsible for work done, equipment or parts furnished, or repairs made by others, or for any loss or expense arising from such work, equipment, parts or repairs. The COMPANY shall not be responsible for consequential damages and injuries resulting from any cause including negligence.

PATENTS 2

The COMPANY shall defend at its own expense any suit or action brought against the PURCHASER based on a claim that the equipment, or any part thereof, furnished hereunder constitutes an infringement of any patent of the United States, if notified promptly in writing and given authority, information and assistance for the defense of same, and the COMPANY shall pay all damages and costs awarded therein against the PURCHASER. In case the equipment or any part thereof is in such suit held to constitute infringement and its use is enjoined, the COMPANY shall, at its own expense, either procure for the PURCHASER the right to continue using said equipment; or replace same with non-infringing equipment; or modify it so it becomes non-infringing; or remove said equipment and refund the purchase price and the transportation and installation costs thereof.

INSURANCE 3

Until the equipment is fully accepted and the contract price paid in full, the PURCHASER shall provide and maintain insurance to the total value of the equipment, from and after the date that risk of loss of and damage to equipment is assumed by the PURCHASER and all work performed in the erection thereof against risks of fire and explosion, including inherent and boiler explosion (broad coverage). Risk of loss or damage to the equipment shall pass to the PURCHASER upon delivery of the equipment or any portion thereof to a common carrier at point of origin in the case of shipments f. o. b. point of origin and when equipment arrives at destination in case of shipment f. o. b. point of destination. All loss to the PURCHASER and to the COMPANY resulting from failure of the PURCHASER to effect and maintain such insurance shall be assumed and paid by the PURCHASER.

**BACK CHARGES 4
AND
ALLOWANCES
FOUNDATIONS 5**

The COMPANY shall not be called upon to make any allowance for material, labor, repairs or alterations made for its account unless authorized by it in writing.

The COMPANY shall provide the PURCHASER with general arrangement drawings showing the equipment with reference to foundations, including loading diagrams and showing location of anchor bolts in the foundations. The COMPANY shall not be responsible for the depth of the footings, size or accuracy of the foundations or the character of the materials selected for their construction. Adequate foundations, having plan measurements in accordance with such drawings including foundation bolts and plates, concrete work, all grouting and excavation, shall be furnished in place in due time by the PURCHASER. The COMPANY shall not be responsible for any damages, or repairs necessary to the equipment furnished by it, caused by or resulting from defects in or settlement of the foundations.

If the work required of the COMPANY includes any excavation or foundations below the floor line, the price named herein covers only the excavation of ordinary dry soil to a depth of 18", assuming that remaining soil will be found of sufficient supporting strength so that foundations need not be more than 6" wider than the structure supported thereon. If it is necessary, on account of unsatisfactory soil conditions, for the COMPANY to excavate more deeply or to install wider or deeper foundations, or if it is necessary for the COMPANY to excavate or remove rock, concrete or other solid interference, or to waterproof any excavation or foundations, or to underpin existing structures, the PURCHASER shall pay the COMPANY for all such additional work at cost plus 15%.

TAXES 6

Any tax now or hereafter imposed by any federal, state, municipal or other government agency, based on or measured by the sale, use, ownership or possession of material, equipment, or services used or consumed in the performance of the work included in this proposal or by the gross receipts from this transaction or any allocated portion thereof or by the gross value of the material, equipment, or services covered herein, or any similar tax, shall be paid by the PURCHASER. The PURCHASER, immediately upon the presentation of a bill therefor, shall pay the COMPANY the amount of such tax which the COMPANY may be required by law to collect and/or pay. Rulings of authorities in charge of administration of such law that such a tax is imposed shall be final and binding upon the PURCHASER.

STEEL WORK.

Unless otherwise stated, any supporting steel to be furnished by the COMPANY as specified in this Proposal will be designed to support the equipment which the COMPANY proposes to furnish and will be designed in accordance with the latest Rules of the American Institute of Steel Construction. If the COMPANY is required to increase the size or weight of its supporting structures to conform to other than these Rules or because of additional loadings imposed by the PURCHASER, the PURCHASER shall reimburse the COMPANY for the additional steel required.

LIABILITY AND DAMAGE TO PERSONS OR PROPERTY.

1. **LIABILITY AGREEMENT.** The COMPANY shall be responsible for any loss by reason of the liability imposed upon it by law for damages

- (a) because of bodily injuries, including death at any time resulting therefrom, accidentally sustained by any person or persons, and
- (b) because of accidental injuries to or destruction of property

occurring prior to the completion of the work contemplated by this proposal and due to any negligent act or omission of the COMPANY or of its employees, or of its sub-contractors, or of such sub-contractors' employees in connection with the performance of such work; but this agreement shall not include such injuries to any person or persons or injury to or destruction of any property due to any negligent act or omission of the PURCHASER, or of his employees, or of any employee paid by the PURCHASER who may be utilized by the COMPANY to do all or any part of the work called for under this proposal.

2. **INSURANCE AGREEMENT.** The COMPANY shall provide and maintain at its own expense until completion of the work the following forms of insurance in respect of its own employees:

WORKMEN'S COMPENSATION INSURANCE including **EMPLOYERS LIABILITY INSURANCE** in accordance with the laws of the state in which the COMPANY may be required to pay compensation;

PUBLIC LIABILITY INSURANCE with an individual limit of not less than \$100,000 and a total limit for any one accident of not less than \$200,000 (but not in respect of any employee paid directly by the PURCHASER but utilized by the COMPANY).

3. **LIABILITY FOR DAMAGE TO PERSONS OR PROPERTY IF CAUSED BY EMPLOYEES OF THE PURCHASER.** If the PURCHASER furnishes workmen for the unloading, transportation, loading, handling or erection of the equipment to be furnished by the COMPANY hereunder, or if the COMPANY or its Erection Supervisor utilizes workmen paid directly by the PURCHASER, to perform the work covered by this Contract, then the PURCHASER shall indemnify and hold harmless the COMPANY from any and all liability, claims, suits or expenses in connection with bodily injuries including death at any time resulting therefrom and in connection with any damage to or loss of property, sustained by any person or persons including such workmen, occurring during the performance of such work, except such injury, death, damage or loss as may result from the negligent acts or omissions of the COMPANY or its employees. The PURCHASER shall at his own expense defend any and all suits brought against the COMPANY alleging any such injury, death, damage or loss, even if such suit or suits are groundless, false, or fraudulent.

4. **RESPONSIBILITY OF PURCHASER FOR OPERATION OF EQUIPMENT PRIOR TO FINAL ACCEPTANCE.** With respect to all preliminary operations, demonstration of capacity and performance guarantees, representatives of the COMPANY are authorized only to advise and consult with the PURCHASER or its representatives and no representative of the COMPANY is licensed to operate the equipment. In the event the PURCHASER shall operate the equipment specified hereunder prior to final acceptance, the PURCHASER shall indemnify and save harmless the COMPANY against any loss or expense and against any liability imposed upon the COMPANY for any injury to person or damage to property, including the equipment furnished by the COMPANY, resulting from the operation of such equipment by the PURCHASER prior to final acceptance, except any such loss, expense or liability for injury or damage, resulting from the negligent acts or omissions of the COMPANY or its agents or employees.

5. **NOTIFICATION OF CLAIMS.** The PURCHASER shall notify the COMPANY immediately, by Registered Mail addressed to the COMPANY at its Main Office, of all claims brought against the PURCHASER for which the COMPANY may be liable and the COMPANY shall notify the PURCHASER immediately, by Registered Mail addressed to the PURCHASER at Corpus Christi, Texas, of all claims brought against the COMPANY for which the PURCHASER may be liable.

PRICE ADJUSTMENT

In the event that shipment is delayed beyond the contract shipping date for reasons beyond the control of the Company, including, but not limited to, the causes recited in the paragraph in the General Conditions captioned "Liability for Delayed Shipment", or at the request of the Purchaser, the contract price shall be adjusted in accordance with the Company's standard "Material and Shop Labor Price Adjustment Clauses".

WIRING

All shop wiring included in this proposal shall be done in accordance with the National Electric Code. If area regulations require a departure from the type of wiring included in this proposal, or if area regulations require rewiring in the field, such additional expense shall be paid for by the Purchaser.

UNIFIED SHIPMENT

When rail shipment is included in this proposal, each boiler unit shall be shipped in carload lot to the standard gauge railroad siding nearest the Purchaser's plant site, depending upon the Company's ability to obtain shipping clearance from the railroad company.

When truck shipment is included in this proposal, each boiler unit shall be shipped in truckload lot to the Purchaser's plant site, depending upon the Company's ability to obtain shipping permits from the state, county or city road commissions.

When shipping charges are included in this Proposal-Contract or accompanying letter of quotation, any change in transportation carrier or method of shipment from that contemplated by the Company will result in an adjustment of the price to cover the additional or reduced cost to the Company.

STANDARD ASSEMBLIES

Any changes made in the material furnished or to the shop assembly of the boiler unit as described in this Proposal-Contract or accompanying letter of quotation will result in an adjustment of the price to cover the additional or reduced cost due to such change. In the event that any changes are made, the delivery estimate as established by the Proposal-Contract or accompanying letter of quotation will become void.

PIPING

All shop assembled piping shall be made tight at the factory prior to shipment. Any leakage developed during shipping, transporting or handling after leaving the factory shall be corrected by the Purchaser with no recourse to the Company. If repiping is required in the field for any reason, the additional expense shall be paid for by the Purchaser.

INSURANCE REQUIREMENTS

Control system design and components included are usually acceptable to insurance groups such as Factory Mutual Insurance Association and Factory Insurance Association, however, the Purchaser must obtain actual approval by submittal to their insurance carrier. The Company will assist the Purchaser by furnishing suitable drawings and descriptions. Any changes required to obtain approval will be made, and the price will be increased accordingly.

TAXES.

The prices provided for herein are exclusive of any present or future Federal, State, Municipal or other sales or use tax with respect to the material or equipment or services covered hereby and of any other present or future excise tax upon or measured by the gross receipts from this transaction or any allocated portion thereof or by the gross value of the material or equipment covered hereby. If the COMPANY is required by applicable law or regulation to pay or collect any such tax or taxes on account of this transaction or the material or equipment or services covered hereby, then such amount of tax shall be paid by the PURCHASER in addition to the prices herein provided for.

PERMITS AND APPROVAL OF PLANS AND SPECIFICATIONS REQUIRED BY STATE OR MUNICIPAL REGULATIONS.

It is mutually agreed that where State laws or Municipal ordinances require permits to install equipment covered by this proposal, or the approval of the plans and specifications for this installation, the PURCHASER assumes the responsibility for securing the approval of said plans and specifications from the proper State or Municipal authorities and for any required fees. If any changes are required in the equipment covered by this proposal to meet the approval of said State or municipal authorities, the PURCHASER shall inform the COMPANY of such changes and shall reimburse it for changes actually made to comply with the requirements of said authorities.

TITLE AND RIGHT OF POSSESSION.

The title and right to possession of the property called for and furnished under the terms of this contract, and any replacements thereof or substitutions therefor, and the right to use the same under the patents of the COMPANY, if any, shall remain in the COMPANY until all payments due hereunder, and payments of any judgments thereon, shall have been fully made in cash. The equipment herein specified shall remain the personal property of the COMPANY, notwithstanding the manner of its annexation to realty, until fully paid for in cash, and the PURCHASER agrees to perform all acts which may be necessary to perfect and assure retention of title to the said equipment in the COMPANY.

Any payments made on account of the purchase price shall in case of any default in payment be deemed to be for the use and wear of such equipment. The acceptance of notes (or any renewal thereof) or any security for the purchase price shall not operate as a waiver or transfer of title or right of possession. If any payments due to the COMPANY hereunder shall have been in default for sixty (60) days after the due date, all unpaid installments shall become due and payable, and the COMPANY, in addition to any other remedies then available to it, reserves the right on ten (10) days' notice to the PURCHASER to remove the equipment furnished hereunder, using all reasonable care to avoid damage to the property of the PURCHASER but without liability for any damage resulting therefrom.

LIMITATION OF PROPOSAL.

The price and terms quoted in this proposal are subject to acceptance by the PURCHASER within a period of 15 days from the date hereof, except that the COMPANY shall have the right to withdraw its proposal at any time before formal acceptance by the PURCHASER and approval in writing by an officer of the COMPANY.

EXECUTION OF CONTRACT.

This proposal is made in duplicate and shall become a contract between the PURCHASER and the COMPANY when accepted by the PURCHASER and approved in writing by an executive officer of the COMPANY and when so accepted it shall be binding upon the parties hereto and upon their respective heirs, executors, successors and assigns. When so accepted and approved, it shall be effective for all purposes as of the date of the proposal.

There are no understandings between the parties hereto as to the subject matter of this proposal other than as herein set forth. All previous communications between the parties hereto, either verbal or written, are hereby abrogated and withdrawn and the acceptance of this proposal with the specification

ABRASION, EROSION AND CORROSION

To study the effect of abrasion, erosion, corrosion or excessive heat, the Engineering Committee of the Air Moving and Conditioning Association has been investigating and experimenting with plate alloys, materials, coatings and forms of construction. To date no materials or means have been discovered which will effectively and completely resist all such effects. Some materials are better than others. The resistance to such effects, therefore, is one of degree only.

Experience having shown, on the basis of present-day knowledge, that abrasion, erosion, corrosion or deterioration from excessive heat are speculative assumptions of maintenance, it is the policy of the Association to advise buyers of fan equipment that guarantees covering such conditions cannot be made in good faith.

FIELD TEST OF FANS

Research undertaken by the Members of the Association in cooperation with Test Code Committees of the Engineering Societies reveals thus far that no accurate or practical method of testing fans in the field has been developed by means of gas analysis or by use of the Pitot tube or other instruments.

Since the values obtained from field tests vary so widely from actual results, guarantees of the performance of fans can only be made from laboratory tests conducted by the manufacturer in accordance with the "Standard Test Code for Centrifugal and Axial Fans" approved jointly by the Air Moving and Conditioning Association Inc., and the American Society of Heating and Air Conditioning Engineers, with cooperation from Committee No. 10 of the Power Test Code Committee of the American Society of Mechanical Engineers.

In accordance with Paragraph 17 of the "Standard Test Code for Centrifugal and Axial Fans" the performance of fans with wheels larger than 35" in diameter may be calculated from tests made on fans of the same design and similar proportions having a wheel not less than 35" in diameter. For fans having wheels less than 35" in diameter the performance may be calculated from tests made on fans of the same design and similar proportions and having a wheel diameter not greater than the rated size. The manufacturer reserves the right in all cases to test proportional fans as outlined in this paragraph.

*(The above is reprinted, with permission, from a publication of
Air Moving and Conditioning Association Standards).*

and drawings referred to herein constitutes the whole agreement between the parties hereto. The contract cannot be assigned nor may the general conditions be modified except by a duly approved supplementary agreement signed by both parties. Any provisions of a purchase order or specification which may be issued after this Proposal has been accepted by the PURCHASER and which are additions to or in conflict with the provisions of this Proposal shall not be binding on the COMPANY unless duly approved in writing by both parties to the contract.

ARBITRATION.

Any controversy or claim arising out of or relating to this contract or the breach thereof, shall be settled by arbitration, in accordance with the Rules, then obtaining, of the American Arbitration Association, and judgment upon the award rendered may be entered in any court having jurisdiction thereof.

This contract is made in Erie, Pennsylvania.

Respectfully submitted,

UNION IRON WORKS

By _____

THE FOREGOING PROPOSAL IS HEREBY ACCEPTED EFFECTIVE FOR ALL PURPOSES AS OF THE DATE OF THE PROPOSAL.

Executed by the parties this _____ day of _____ 19____

(Purchaser)

By _____

Title _____ (SEAL)

APPROVED AS OF ABOVE DATE.

Page 32

UNION IRON WORKS

By _____ (SEAL)

Title _____

UNION IRON WORKS

PROPOSAL-CONTRACT

P-C 125

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Gale No. 97-3799-C

D&E 00782

SALES	ENGRG/AM/	PURCH.	PROD.	CONSTR/124	SERVICE (2)	ACCOUNT	CONTR. ADM. (3)	RES/AM/DEF.	PARTS	NET/AM/11	APN	CONV/AM/11	DETROIT	G	R G	M	Hgt/	K	Cr	PH/	U. I. W.	HOUSTON
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CONTRACT STIPULATIONS

T.A. ✓
Sales file 15-90881

RECEIVED
AT ERIE

DEC 11 1967

PAGE NO.

REV. NO.

CONTRACT SUMMARY	8,9,10,11,12,1,2,3,4,5	1.0	1
CONTRACT STIPULATIONS	A	2.0	3
CONTRACT DOCUMENTS		3.0	2
PRICE & TERMS	//////	4.0	2
TERMS OF PAYMENT		4A.0	0
PRICE ADJUSTMENTS		4B.0	Later
SPECIAL CONDITIONS		5.0	0
MAIL DISTRIBUTION		6.0	0
ERECTION LABOR & REPRESENTATIVE		7.0	Per diem
SERVICE REPRESENTATIVE		8.0	Per diem
PREDICTED PERFORMANCE		9.0	0
GUARANTEED PERFORMANCE		10.0	0
EQUIPMENT SUMMARY		11.0	0

U. I. W. 8-90881

D&E 00783

CONTRACT NO. 67079-60 So. West Oil & Ref. Co.	CONTRACT STIPULATIONS	Rev. No 3	Date 12-4-67
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CONTRACT INFORMATION SHEET PAGE 2.0

SALES	EXCHG./W/	PURCH.	PROD.	CONSTR./W/	SERVICE (2)	ACCOUNT	CONTR. ADM. (2) / (3)	WFS/M/DEF.	PARTS	WFS/M/DEF.	ADP/	CONSTR./W/	DEPT/PT	G	R G	M	WFS/	K	C	W/	WFS/
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CONTRACT STIPULATIONS

TOA Sales file 15-90881

RECEIVED
AT ERIE

	PAGE NO.	REV. NO.
CONTRACT SUMMARY ----- DEC 11 1967	1.0	1
8,9,10,11,12,1,2,3,4,5		
CONTRACT STIPULATIONS -----	2.0	3
CONTRACT DOCUMENTS -----	3.0	2
PRICE & TERMS -----	4.0	2
TERMS OF PAYMENT -----	4A.0	0
PRICE ADJUSTMENTS -----	4B.0	Later
SPECIAL CONDITIONS -----	5.0	0
MAIL DISTRIBUTION -----	6.0	0
ERECTION LABOR & REPRESENTATIVE -----	7.0	Per diem
SERVICE REPRESENTATIVE -----	8.0	Per diem
PREDICTED PERFORMANCE -----	9.0	0
GUARANTEED PERFORMANCE -----	10.0	0
EQUIPMENT SUMMARY -----	11.0	0

U.I.W. S. 90881

D&E 00785

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT STIPULATIONS

Rev. No. 3

Date
12-4-67

SALES
PURCH.
ACCOUNT.
CONTR. ADMIN.
62/ (3)
PARTS
G
RG
M
Plm
K
Cr
Pl
U. I. M.
ROBERTSON

CONTRACT PRICE

INITIAL PRICE \$107,269. *

FIRM
ESCALATED

SUPPLEMENTARY PRICING: None

TAXES - 3-11 Taxes

PRICE BREAKDOWN:

~~MATERIAL~~
~~SUPERINTENDENCE~~
~~MECHANICAL LABOR~~
~~SETTING LABOR~~
~~INSULATION LABOR~~
~~LAGGING LABOR~~

ESCALATION //

MATERIALS/SHOP/MECH

7/4/75/7/1/30/8/

~~NRKES~~//

LABOR
MATERIAL MAGAZINE IRON AGE
BASE MONTH

MAXIMUM/ALLOWABLE ADJUSTMENT

* Proposal NO. TA 52967, Page 25, which is a binding part of this contract contains a freight adjustment clause.

D&E 00786

CONTRACT NO. 67079-60	PRICE & TERMS	Rev. No 2	Date 12-4-67
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SALES	EXCHG/WH/	PURCH.	PROD.	CONSTR/WH	SERVICE (2)	ACCOUNT	CONTR. ADM. (3)	WPS/H/DEF	PARTS	WPS/H/DEF	APN	CONTR. ADM. (3)	DEPR97	G	R G	M	WPS/H/DEF	K	Cs	WPS/H/DEF	U. I. W. HOSIOR
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TOA
Sales file 15-9078

CONTRACT STIPULATIONS

RECEIVED
AT ERIE

DEC 11 1967

	PAGE NO.	REV. NO.
CONTRACT SUMMARY	1.0	1
CONTRACT STIPULATIONS	2.0	3
CONTRACT DOCUMENTS	3.0	2
PRICE & TERMS	4.0	2
TERMS OF PAYMENT	4A.0	0
PRICE ADJUSTMENTS	4B.0	Later
SPECIAL CONDITIONS	5.0	0
MAIL DISTRIBUTION	6.0	0
ERECTION LABOR & REPRESENTATIVE	7.0	Per diem
SERVICE REPRESENTATIVE	8.0	Per diem
PREDICTED PERFORMANCE	9.0	0
GUARANTEED PERFORMANCE	10.0	0
EQUIPMENT SUMMARY	11.0	0

U. I. W. # 90881

D&E 00787

CONTRACT NO. 67079-60 So. West Oil & Ref. Co.	CONTRACT STIPULATIONS	Rev. No. 3	Date 12-4-67
--	-----------------------	------------	--------------

SALES
PURCH.
ACCOUNT.
CONTR. ADMIN.
10/13
PARTS
G
RG
M
Hyd
K
Cr
Dg
U. I. V.
HOUSTON

CONTRACT PRICE

INITIAL PRICE \$107,269.*

FIRM

ESCALATED

SUPPLEMENTARY PRICING: **None**

TAXES - Sell Taxes

PRICE/BREAKDOWN:

MATERIAL
 SUPERINTENDENCE
 MEDIAN ANNUAL LABOR
 SETTING ALABOR
 INSULATION ALABOR
 LAGGING LABOR

ESCALATION //

~~MATERIAL / SHOP LABON~~ ~~MATERIAL / LABON~~

~~DIRLES//~~

LABOR
MATERIAL MAGAZINE IRON AGE
BASE MONTH

MAXIMUM/ALLOWABLE ADJUSTMENT

* Proposal NO. TA 52967, Page 25, which is a binding part of this contract contains a freight adjustment clause.

Guadalupe Banda
Case No. 97-8798-C

D&E 00788

CONTRACT NO. 67079-60	PRICE & TERMS	Rev. No 2	Date 12-4-67
-----------------------	---------------	-----------	--------------

SALES	EXP/SALES/1941	PURCH.	PROD.	CONTRACT/1941	SERVICE (2)	ACCOUNT	CONTRACT ADM. (3)	REP/ADP/1941	PARTS	NET/1941	ADP/1941	CONTRACT/1941	DEF/1941	G	R G	M	H/1941	K	Ct	AD/1941	U. I. W. HOUSTON
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CONTRACT STIPULATIONS

T.A. Guadalupe

LS-90881

PAGE NO.

REV. NO.

CONTRACT SUMMARY	1.0	1	
CONTRACT STIPULATIONS	2.0	2	R
CONTRACT DOCUMENTS	3.0	2	R
PRICE & TERMS	4.0	1	R
TERMS OF PAYMENT	4A.0	0	
PRICE ADJUSTMENTS	4B.0	Later	
SPECIAL CONDITIONS	5.0	0	
MAIL DISTRIBUTION	6.0	0	
ERECTION LABOR & REPRESENTATIVE	7.0	Per diem	
SERVICE REPRESENTATIVE	8.0	Per diem	
PREDICTED PERFORMANCE	9.0	0	
GUARANTEED PERFORMANCE	10.0	0	
EQUIPMENT SUMMARY	11.0	0	

U.I.W. # 90881

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT STIPULATIONS

Rev. No. 2

Dec-20-67

CONTRACT INFORMATION SHEET

PAGE 2.0

D&E 00789

SALES

EM 486 / 1441

PURCH.

PROD.

CONSTR. (2)

SERVICE (2)

ACCOUNT.

CONTR. ADM.

127 (3)

RES / 127 (2)

PARTS

H94 /

191

U. I. W.

HOUSTON

APPLICABLE CONTRACT DOCUMENTS

U. I. W. Proposal TA-52967 dated May 29, 1967

Tennant Co. (A. D. Payne) quot. letter dated May 22, 1967

So. West Oil & Ref. Co. P. O. 57391 dated May 24, 1967

Tennant Co. (A. D. Payne) letter dated May 26, 1967

Acknowledgement Letter (R.K. Griffith) Dated August 21, 1967

Change Order NO. 57391-1 dated August 23, 1967

Acknowledgement Letter dated September 20, 1967

Guadalupe Banda
Cause No. 87-8798-C

CONTRACT NO. 67079-60

CONTRACT DOCUMENTS

Rev. No. 2

D9120-67

CONTRACT INFORMATION SHEET

PAGE 30

D&E 00790

SALES
PURCH.
ACCOUNT.
CONTR. ADMIN
12/13
PARTS
G
R G
M
Plg/m
K
Cr
Plg
U. I. W.
HOUSTON

CONTRACT PRICE

INITIAL PRICE \$107,269.

FIRM

ESCALATED

SUPPLEMENTARY PRICING: **None**

TAXES Tax status to be determined by Legal Dept.

PRICE/BREAKDOWN:

**MATERIAL
SUPERINTENDENCE
MECHANICAL LABOR
SETTING LABOR
INSULATION LABOR
LAGGING LABOR**

ESCALATION //

~~MATERIAL & SHOP LABOR~~

REVENUE

~~PRICES //~~

LABOR
MATERIAL MAGAZINE IRON AGE
BASE MONTH

MAXIMUM/ALLOWABLE ADJUSTMENT

* Proposal NO. TA 52967, Page 25, which is a binding part of this contract contains a freight adjustment clause.

Case 1:15-cv-00002-00000

CONTRACT NO. 67079-60	PRICE & TERMS	Rev. No. 1	Date 9-20-67
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SALES

ENG/9/99/11

PURCH.

PROD.

99/9/99/11

SERVICE (2)

ACCOUNT.

CONTR. ADM.

(2) (3)

RES/M/DEY.

PARTS

METAL

ADV.

99/9/99/11

DET/9/99/11

G

RG

M

99/9/99/11

K

Cr

99/9/99/11

U. I. W.

HOUSTON

RILEY STOKER CORPORATION WORCESTER, MASS.

PURCHASER

Southwestern Oil & Refining Co.
Corpus Christi, Texas

CONTRACT NO. 67079-60

PURCHASE ORDER NO. 57391

ORDER DATE May 24, 1967

SHIPMENT PROMISED Week of 12/4/67

ULTIMATE USER

As above

ORDER BASIS Material
Supt. - per diem basis

CONSULTING ENGINEER

None

SALES OFFICE

Houston
Union Iron WorksRECEIVED
AT ERIC

AUG 28 1967

SCOPE

One (1) Union Iron Works type MH boiler
Generating 125,000 lbs. steam per hour
Operating at 425 psig, 600 F. total temp. from feed water at 240 F.
475 psig design pressure
Type of firing natural gas (Peabody burners)

U. I. W. contract S 90881 and
Riley P. O. to UIW No. 118347-67079 apply

The above is to be duplicate of one (1) unit furnished on Riley contract 65112-61
and UIW contract S 90755.

Guadalupe Banda
Contract No. 67-67022-0

CONTRACT RELEASE:

☐ ENGINEERING
☐ SPECIAL

☐ O.B.M.☒ FABRICATION☒ SHIPMENT

AUTHORIZATION:

8-21-67

P. O. 57391 of 5/24/67 & Acceptance of

ISSUED BY J. A. Rogers

DATE 6/5/67

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT SUMMARY

Rev. No. 1

8-21-67

CONTRACT INFORMATION SHEETS

PAGE 1.0

D&E 00792

SALES	ENGRG/141	PURCH.	PROD.	Q9NSTR/121	SERVICE (2)	ACCOUNT	CONTR. ADM. (3) (3)	RES/ADP/1	PARTS	MEX/141/1	ADN/	CORNWELL/3/	DE/141/1	G	R G	M	H/141/1	K	Cr	H/141/1	U. I. W.	HOUSTON
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CONTRACT STIPULATIONS

	<u>PAGE NO.</u>	<u>REV. NO.</u>	
CONTRACT SUMMARY -----	1.0 -----	1	R
CONTRACT STIPULATIONS -----	2.0 -----	1	R
CONTRACT DOCUMENTS -----	3.0 -----	1	R
PRICE & TERMS -----	4.0 -----	0	
TERMS OF PAYMENT -----	4A.0 -----	0	
PRICE ADJUSTMENTS -----	4B.0 -----	Later	
SPECIAL CONDITIONS -----	5.0 -----	0	
MAIL DISTRIBUTION -----	6.0 -----	0	
ERECTION LABOR & REPRESENTATIVE -----	7.0 -----	Per diem	
SERVICE REPRESENTATIVE -----	8.0 -----	Per diem	
PREDICTED PERFORMANCE -----	9.0 -----	0	
GUARANTEED PERFORMANCE -----	10.0 -----	0	
EQUIPMENT SUMMARY -----	11.0 -----	0	

U. I. W. S 90881

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT STIPULATIONS

Rev. No.

1

Date
8-21-67

CONTRACT INFORMATION SHEET

Circle-type Band
Cause No. 67-67886

PAGE 2.0

D&E 00793

SALES

EM 6/27/67

PURCH.

PROD.

CONSTR. 1/21/67

SERVICE (2)

ACCOUNT.

CONTR. ADM.
12/31

REF. / M. D. 1/21/67

PARTS

1/21/67

1/21/67

U. I. W.
HOUSTONAPPLICABLE CONTRACT DOCUMENTS

U. I. W. Proposal TA-52967 dated May 29, 1967

Tennant Co. (A. D. Payne) quot. letter dated May 22, 1967

So. West Oil & Ref. Co. P. O. 57391 dated May 24, 1967

Tennant Co. (A. D. Payne) letter dated May 26, 1967

Acknowledgement Letter (R.K. Griffith) Dated August 21, 1967

R

Guadalupe Banda
Cause No. 67-8700-C

CONTRACT NO. 67079-60

CONTRACT DOCUMENTS

Rev. No.

1

Date

8-21-67

CONTRACT INFORMATION SHEET

PAGE 30

D&E 00794

SALES	ENG/10/10/11	PURCH.	PROD.	99/10/10/11	SERVICE (2)	ACCOUNT.	CONTR. ADM. (2) (3)	RES/A/10/11	PARTS	METAL	ADV.	99/10/10/11	99/10/10/11	G	RG	M	10/10/11	K	Cr	10/10/11	U. I. W.	HOUSTON
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RILEY STOKER CORPORATION WORCESTER, MASS.

PURCHASER

Southwestern Oil & Refining Co.
Corpus Christi, Texas

CONTRACT NO. 67079-60

PURCHASE ORDER NO. 57391

ORDER DATE May 24, 1967

SHIPMENT PROMISED Week of 12/4/67

ULTIMATE USER

As above

ORDER BASIS Material
Supt. - per diam basis

CONSULTING ENGINEER

None

SALES OFFICE

Houston
Union Iron Works

RECEIVED
AT ERIE

AUG 28 1967

8, 9, 10, 11, 12, 13, 14, 15

SCOPE

One (1) Union Iron Works type MH boiler
Generating 125,000 lbs. steam per hour
Operating at 425 psig, 600 F. total temp. from feed water at 240 F.
475 psig design pressure
Type of firing natural gas (Peabody burners)

U. I. W. contract S 90881 and
Riley P. O. to UIW No. 118347-67079 apply

The above is to be duplicate of one (1) unit furnished on Riley contract 65112-61
and UIW contract S 90755.

Guadalupe Banda
Cause No. 97-3732-C

CONTRACT RELEASE:

☐ ENGINEERING
☐ SPECIAL

☐ O.B.M.

☒ FABRICATION

☒ SHIPMENT

AUTHORIZATION:

8-21-67

P. O. 57391 of 5/24/67 & Acceptance of

ISSUED BY J. A. Rogers

DATE 6/5/67

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT SUMMARY

Rev. No. 1

8-21-67

CONTRACT INFORMATION SHEETS

PAGE 1.0

D&E 00795

SALES	EM/GR/14/1	PURCH.	PROD.	99/5/2/1/2/1	SERVICE (2)	ACCOUNT	CONTR. ADM. (2) (3)	YES/NO/REV	PARTS	MEX/14/1	APM	CORR/14/1/3	DEP/14/1	G	R G	M	H/14/1	K	Cr	14/1	U. I. W.	HOUSTON
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CONTRACT STIPULATIONS

	PAGE NO.	REV. NO.	
CONTRACT SUMMARY	1.0	1	R
CONTRACT STIPULATIONS	2.0	1	R
CONTRACT DOCUMENTS	3.0	1	R
PRICE & TERMS	4.0	0	
TERMS OF PAYMENT	4A.0	0	
PRICE ADJUSTMENTS	4B.0	Later	
SPECIAL CONDITIONS	5.0	0	
MAIL DISTRIBUTION	6.0	0	
ERECTION LABOR & REPRESENTATIVE	7.0	Per diem	
SERVICE REPRESENTATIVE	8.0	Per diem	
PREDICTED PERFORMANCE	9.0	0	
GUARANTEED PERFORMANCE	10.0	0	
EQUIPMENT SUMMARY	11.0	0	

U. I. W. S 90881

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT STIPULATIONS

Rev. No. 1 Date 8-21-67

CONTRACT INFORMATION SHEET

PAGE 2.0

D&E 00796

SALES

APPLICABLE CONTRACT DOCUMENTS

U. I. W. Proposal TA-52967 dated May 29, 1967

Tennant Co. (A. D. Payne) quot. letter dated May 22, 1967

So. West Oil & Ref. Co. P. O. 57391 dated May 24, 1967

Tennant Co. (A. D. Payne) letter dated May 26, 1967

Acknowledgement Letter (R.K. Griffich) Dated August 21, 1967

CONTRACT NO. 67079-60	CONTRACT DOCUMENTS	Rev. No. 1	Date 8-21-67
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CONTRACT INFORMATION SHEET

PAGE 30

D&E 00797

PURCHASE ORDER

W-84

TAX file

RILEY *Stoker Corporation*

WORCESTER, MASSACHUSETTS 01601

P.O. NO. 118347-67079-60

PURCHASE
REQUESTION
NUMBER

01276

ACCOUNT
NUMBER

67079-60

SHIP VIA	MARK	F.O.B.	TERMS	DATE OF ORDER
YOUR RELEASE		Erie, Pa.		7/5/67

V
E
N
D
O
R
 UNION IRON WORKS
 1550 Cascade St.
 Erie, Pennsylvania
RECEIVED
AT ERIE

JUL - 7 1967

DATE REQUESTED

Your Release

DATE RECEIVED

S
H
I
P
T
OSouthwestern Oil & Refining Co.
(Your Release)

8,9,10,11,12,1,2,3,4,5

▲ ACK-7/10/67

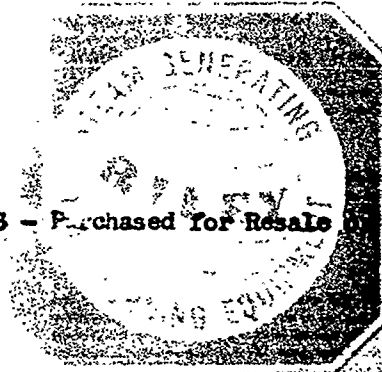
90881

QUANTITY	MATERIAL
----------	----------

1	125,000#/hr. Union Steam Generating Unit and Accessories (Union S-90881)
---	--

Price: Total lump sum \$107,269.00 net with freight prepaid and allowed
to Corpus Christi, Texas.

EXEMPT FROM SALES AND USE TAXES - Purchased for Resale or Incorporation
into manufactured product.

lcc:F
R
HW

rfs/as

Guadalupe Banda
Cante No. 67-67079-60

VENDOR (named above) Please FURNISH in compliance with all terms, conditions (see reverse side) and instructions, the goods and/or services specified herein. FORWARD complete shipping information immediately upon shipment. SHOW P. O. NO. and MARK on ALL CORRESPONDENCE, acknowledgments, letters, invoices, packing lists, shipping papers and all packages.

P.O. NO. 118347

D&E 00798

DIVISION OF RILEY STOKER CORPORATION

Sheet No. 3

ORDER NO. S-90881

59.

	Estimate				Com. Inc.	Selling Price Inc. Com.
Boiler for Erie	51780					51780
Fittings						
Misc. Extras:						
Superheater	7699					7699
Economizer	9638					9638
Split Dampers	750					750
Ducts, Economizer Steel & Stub Stack	3393					3393
Misc. piping material and labor	1500					1500
Drum End & safety valve covers	396					396
Walkways, Ladders & Platforms	3411					3411
Misc. Deductions:						
Insulate & Lag Uptake, Drum End Covers	1173					1173
Freight	3781					3781
Total	83521					83521

[illegible]

Sub-Contracts	Estimate	UTW Carrying Charge	Com. Inc.	Net Selling Price
Economizer Fin Tubing - Kentube	3923	547		4470
Economizer Return Bends	564	86		650
Trim. Blr., Superheater & Economizer	4519	678		5197
Galvanize Ladders, Platforms & Walkways	261	39		300
FD Fan - Sturtevant	4163	625		4788
Burners - Peabody	5096	763		5859
Drum Rolling - Titusville Iron Works	2160	324		2484
O/C				
Totals				
6/9/67				
Bonds				
Finance Charges				
Total Contract Price	104207	3062		107269

100 UFW Order 10-66-K

D&E 00799

ORDER NO. S-90881

PURCHASER Riley Stoker Corporation-Worcester, Mass.

SALES OFFICE

Sub-Contracts

Bonds

Finance Charges

Total Contract Price

OK
TON
6/2/67

100-15394-1066

D&E 00800

(12) SHOP ASSEMBLED SHIPMENT

The Company shall assemble the boiler unit, prior to shipment, including tubes, drums, refractories, baffles, tile, insulation, burner front, windbox, burners and steel casings.

The front wall in the furnace section shall consist of 9" of firebrick and 4" of high temperature block insulation covered by the burner front and windbox.

That portion of the front wall which is not covered by the windbox and is backed up by the boiler tubes shall consist of 2" of tile laid up in high temperature cement, 2" of block insulation and a No. 10 Ga. steel casing.

The rear wall shall consist of 2 layers of 2" shiplap refractory tile, laid up in high temperature cement, 5" of high temperature block insulation and a No. 10 Ga. steel casing.

The furnace floor shall consist of 1½" of plain edge tile above the tubes, 3" of insulating castable refractory, Decrete #30, and a 3/16" reinforced steel supporting plate. This plate will be properly reinforced and fabricated to carry the floor load and to seal the setting against any leakage.

The side and top walls of the boiler shall be constructed of tangent tubes, covered with 2 layers of 1/4" asbestos millboard, 2" of insulation, and a No. 10 Ga. steel casing.

The exposed straight portion of the top drum shall be covered with 2" of blanket insulation and a No. 12 Ga. steel casing.

The casing shall be constructed of reinforced flanged panels with all joints seal welded to form a pressure tight enclosure.

The boiler uptake area including transition to economizer, and the economizer proper shall be insulated and finished with a No. 10 Ga. casing. The inside surface of the drum end covers shall be insulated.

External Insulation by Purchaser - Exposed portion of superheater and supply header, economizer headers, trim piping and valves and upper front drum heads. See Alternate IV for insulation of other surfaces.

(13) CENTRIFUGAL TYPE STEAM SEPARATOR

The Company shall furnish and install, in the top steam drum of the boiler, one (1) UNION centrifugal type steam purifier designed to give steam of high quality, to take up a minimum of space, and allow easy access for maintenance. External drains are provided for the purifier including piping per sketch Page 8A.

UNION STEEL FINNED TUBE SHOP ASSEMBLED ECONOMIZER

The Company shall furnish for the unit, for installation by others, on supporting steel, one (1) extended surface steel finned tube economizer, shop assembled, having 9 tubes wide, 22 rows high, each tube having an effective length of 10'-0". The economizer shall have a 3/16" inner casing.

Approximate dimensions of the economizer will be 3'-8-1/2" inside width, 10'-2" inside length by 9'-4-1/2" height over channels.

Approximate heating surface shall be 7,310 square feet.

Economizer design pressure shall be 725 psig.

All casing seams are to be continuously welded.

Insulation and outer casing included as described on Page 1. ⁸

Guadalupe Banda
Genco Inc. 07-2700-C

CONNECTING GAS AND AIR DUCTS

The economizer shall be mounted directly above the boiler gas outlet shown on Drawings BTS-1910A, and the duct system shall include the following:

Cold air duct connecting forced draft fan to windbox.

Hot gas duct connecting the boiler to the economizer.

All ducts shall be constructed of 3/16" plate ^{WITH} T-bars reinforcement and ~~all hot ducts shall be provided with insulation anchors designed to retain Purchaser's insulation.~~

Velocities will be as specified. Access doors and expansion joints, where required, are included.

CONDITIONS OF PROPOSAL

1. The Company has not included any Federal Excise, State or local taxes as brought out on Sheet PC-124 enclosed with this proposal.
2. The services of an erection superintendent and services of an engineer to advise and consult during the start-up have been quoted on a per diem basis.
3. Insulation will be furnished and installed by the Purchaser on all equipment unless otherwise described.
- 3 4. Combustion controls and instruments by the Purchaser.
- 4 5. Fan drives by Purchaser.

Guadalupe Banda
Cable No. 07-5783-C

RILEY STOKER CORPORATION
WORCESTER, MASSACHUSETTS

RECEIVED
AT ERIE

JUN - 2 1967

8,9,10,11,12,1,2,3,4,5

May 31 1967

✓
SA
Sales file
HOUSTON OFFICE
Mr. Payne

SOVEREIGNTY OIL & REFINING CO.
CORPUS CHRISTI, TEXAS
PURCHASE ORDER 97391
UNION S-90881
RILEY 67079-60

Dear Text:

Thank you for sending Worcester the original purchase order dated May 24 which we are passing along to Mr. Hart.

We notice that in addition to the price mentioned to me over the phone the other day by Eric \$103,584. the order now accepts seamless steel tubes for \$3,402. so the present contract price is \$107,269.

You will notice the Union and Riley contract numbers at the head of this letter.

Congratulations on getting an order for the boiler which duplicates one of the units on S-90793, Riley 65112-61.

With best wishes.

RILEY STOKER CORPORATION

John F. Kyes
John F. Kyes
Assistant Manager

JFK:BJ

CC Union Iron Works
CC Mr. Hart
CC Mr. E. F. Sullivan, Purchasing Dept.

Guadalupe Banda
Camec No. 07-5700-C

C O P Y

D&E 00805

Sales file

May 31, 1967

Riley Stoker Corporation
Worcester, Mass.

Mr. C. L. Hart

Southwestern Oil & Refining Company
Corpus Christi, Texas
Their P.O. 57391
Riley P.O. 118347-67079
UIM Contract 8-90881
Riley Contract 67079-60

We are enclosing for your use two copies of Union Iron Works proposal-
contract TA-52967 dated May 29, 1967 which is the proposal description of
the equipment included in the above subject contract.

We are also enclosing a copy of A. D. Payne's letter of quotation of May
24, 1967 and a copy of Mr. Payne's wire of May 26, 1967 confirming the
addition to the contract price for seamless tubes in the boiler and super-
heater.

The total contract price is \$107,269.00 and includes the price of
\$103,584.00 quoted in the letter of May 22nd with the additions for the
scanner at \$191.00, the steam outlet connection at \$92.00, and seamless
tubes for the boiler at \$3,092.00 and for the superheater at \$310.00.

This particular contract is a duplicate of two boilers furnished in 1965
under Union contract 8-90755 and under your P.O. 110021-65112-61.

We are taking this out again in the name of Riley Stoker Corporation for
tax and registration purposes as we do all Texas contracts.

Mr. Payne's letter of May 26, 1967 directed to Mr. P. E. Kemp, Purchasing
Agent of Southwestern Oil & Refining Company indicates that he has sent
you the original of the purchase order from Southwestern Oil & Refining
Company dated May 24, 1967 and we find that this purchase order appears to
be in order, having the correct amount shown on page 1 and no overriding
features to our proposal contract.

We therefore believe that you have all of the necessary information so as
to enable you to fill out the necessary contract documents in your office.
If not, kindly let us know so that I can endeavor to get the required in-
formation for you.

Gluckhufz Banda
Gluckhufz 57-5733C

UNION IRON WORKS

T. O. Andrews

SALES FILE

TOA/km
cc A. D. Payne - Houston

D&E 00806

Sales file

May 31, 1967

The Tennant Company
Houston, Texas

Mr. A. D. Payne

Southwestern Oil & Refining Company
Corpus Christi, Texas
UFW Contract 8-90881
Riley Contract 67079-60

We acknowledge receipt of our copy of your letter of May 26, 1967 which accompanies the purchase order from Southwestern Oil & Refining Company dated May 24, 1967.

As you can see from the letter we have sent to George Hart in Worcester, this purchase order seems to be in order and we are proceeding with the negotiation as planned, having turned the file over to the Engineering Department today.

We have prepared a new proposal TA-52967, two copies of which have been sent to G. L. Hart and four copies of which are included for you for use in transmitting them to the purchaser.

I believe that we have picked up all of the points that you have cautioned us on regarding bringing the boiler unit now being furnished into the final status as the two units furnished under 8-90755.

We have also included the seamless tubing and the external drains for the centrifugal purifier. We have also received and acknowledge your letter of May 25, 1967 concerning the gas ring drilling and are passing this along to the Engineering Department for their use when ordering the Peabody fuel burning equipment.

Congratulations again on your swift action on this contract and we never cease to be amazed at the excellent work you are able to put forth in behalf of Riley Stoker and Union Iron Works.

UNION IRON WORKS

T. O. Andrews

Guadalupe Banda
Cable No. 07-8733-C

TOA/km

cc Worcester - G. L. Hart

SALES FILE

D&E 00807

C
O
P
Y

A
d
O
J

**THE TENNANT COMPANY
ENGINEERS**

500 JEFFERSON BUILDING
HOUSTON, TEXAS 77002

SUITE 1214
CA 7-5201

May 26, 1967

TJA
1.5 ✓
Southwestern Oil & Refining Company
P. O. Drawer 809
Corpus Christi, Texas 78403

Attention Mr. F. E. Kemp

Purchase Order No. 57391
Union Type "MH" Steam Generator

Dear Mr. Kemp:

We acknowledge receipt of your subject confirming order which we are forwarding via air mail today to our principal, Riley Stoker Corporation, for their formal acceptance.

This order was entered verbally on May 23, 1967, for shipment during the week of December 4, 1967.

We appreciate this opportunity to continue our service to you.

Yours very truly,

THE TENNANT COMPANY

A. D. Payne

/h
cc: Riley Stoker Corporation
cc: Union Iron Works

Guadalupe Banda

Order No. 07-8753-C

P. S. to Riley and Union - Original order attached for Worcester and photocopy attached for Erie.

Erie, please be sure the fan is purchased suitable for turbine drive as discussed with you. Also be sure that the annealed steel baffles are retained and the refractory baffle is added along both sides of the furnace making the refractory pour thick enough at the base that it will not fall over the cracks loose from the tubes.

SALES FILE

D&E 00808

PURCHASE ORDER

SOUTHWESTERN OIL & REFINING COMPANY

CORPUS CHRISTI, TEXAS

Date 24 May 1967

RECEIVED
AT ERIE

To Riley Stoker Corporation
c/o The Tennant Company
Suite 1214 - 500 Jefferson Building
Houston, Texas 77002

MAY 29, 1967

8,9,10,11,12,13,4,5

Deliver To Us Here

1. Order No. MUST appear on all Invoices, B/L, Cases, Bundles, Packing Lists and Correspondence.
 2. Tag all items as indicated.
 3. Invoice in TRIPLICATE.
 4. Complete Packing Lists must show Order No. and accompany each shipment.

ITEM	QUANTITY	ARTICLES	PRICE
	1 only	125,000 PPH Union, Type "MH", Steam Generating Unit	\$103,584.00
		Also included will be #45-UV-1 Ultraviolet scanners	191.00
		Steam out connections on burners	92.00
		Seamless steel tubes	3,402.00
			<u>\$107,269.00</u>
		The following special features will be included in base price: - Refractory seal along lower sides of furnace - Steam purifier drains piped outside of unit, and necessary piping valves and high pressure traps provided and installed by you - Split uptake dampers for superheat control - Complete set of platforms and ladders - Drum end covers and safety valve covers - Insulation and lagging of uptake area and economizer - Continuous welding on all external stiffeners and joints - Tube wall thickness increased to 0.105" - Weather proof enclosures for ignitor transformers - Galvanizing of all platforms and ladders - All trim 600 lb. ASA	

(Continued on Page 2)

CONDITIONS

The right is reserved to cancel this order if not filled within the time and in accordance with the terms specified. All material subject to inspection and approval of buyer notwithstanding prior payment to obtain cash discount. Seller must pay all transportation charges both ways on rejected material. No charges allowed for boxing, packing or drayage unless otherwise agreed. Do not invoice material covered by more than one purchase order on any invoice. Separate invoices must be rendered on material covered by each purchase order. The vendor agrees that all requirements of the federal and state laws referring to employment and Labor Standards have been complied with in the production and manufacture of the material called for on this order. The Seller shall have provided Workman's Compensation and Public Liability Insurance and shall hold the Purchaser harmless from and against any and all damages suffered or done to any and all persons or property while engaged on the work covered by this order, in the event that any work is performed under this order. Unless otherwise agreed upon in writing the seller agrees to assume the defense of any suits for infringement of patents, brought against the buyer by reason of the use of these goods and to indemnify the buyer against any decree of costs in such suits. If these conditions are not acceptable please advise us upon receipt of the orders, and before you make shipment.

ORDER NO. 57391

SALES FILE

D&E 00809

E. Kennip
Purchasing Agent

PURCHASE ORDER

SOUTHWESTERN OIL & REFINING COMPANY

CORPUS CHRISTI, TEXAS

Date 24 May 1967

To Riley Stoker Corporation
c/o The Tennant Company

RECEIVED
AT ERIE

MAY 29 1967

8,9,10,11,12,13,4,5

Deliver To

1. Order No. MUST appear on all Invoices, B/Ls, Cases, Bundles, Packing Lists and Correspondence.
2. Tag all items as indicated.
3. Invoice in TRIPLICATE.
4. Complete Packing Lists must show Order No. and accompany each shipment.

ITEM	QUANTITY	ARTICLES	PRICE
		This unit to be exact duplicate of final units furnished to us on our P. O. 56026, Your contract S-90755 Delivery: 29 Weeks from date of Purchase Order confirmation May 23, 1967 - Week of Dec. 4, 1967. F. O. B. Erie, Pennsylvania with full freight allowed to Corpus Christi, Texas Total Wt. 168,700# According to your Quote dated May 22, 1967.	

Guadalupe Benda
Camec Inc. CT-6700-C

CONDITIONS

The right is reserved to cancel this order if not filled within the time and in accordance with the terms specified. All material subject to inspection and approval of buyer notwithstanding prior payment to obtain cash discount. Seller must pay all transportation charges both ways on rejected material. No charges allowed for boxing, packing or drayage unless otherwise agreed. Do not invoice material covered by more than one purchase order on any invoice. Separate invoices must be rendered on material covered by each purchase order. The vendor agrees that all requirements of the federal and state laws referring to employment and Labor Standards have been complied with in the production and manufacture of the material called for on this order. The Seller shall have provided Workman's Compensation and Public Liability Insurance and shall hold the Purchaser harmless from and against all and all damages suffered or done to any and all persons or property while engaged on the work covered by this order, in the event that any work is performed under this order. Unless otherwise agreed upon in writing the seller agrees to assume the defense of any suits for infringement of patent brought against the buyer by reason of the use of these goods and to indemnify the buyer against any decree of costs in such suits. If these conditions are not acceptable please advise us upon receipt of the orders, and before you make shipment.

ORDER NO. 57391-Page 2

SALES FILE *E. Kemp*

Purchasing Agent

F. E. Kemp

D&E 00810



N. Y. STATE TAX EXEMPTION NO. 51-0023450

30943-001

HERCULES INCORPORATED

WILMINGTON, DELAWARE 19899

P.O. DATE

03/17/67

SHIP DATE

RECEIVED

AT ERIE

MAY 17 1967

PURCHASE ORDER NUMBER

ISSUE OFF. PLANT SERIAL NUMBER MO. ALT. NO. BUYER

051 051 30943 05 001 D

ALT. DATE

05 15 67

8,9,10,11,12,13,14

MAILED FROM
(PLANT OR
OFFICE)**HERCULES INCORPORATED****GLENS FALLS, N.Y.****INSTRUCTIONS TO VENDOR**

VENDOR

UNION IRON WORKS
A DIVISION OF RILEY STEEL CORP.
1420 CASCADE STREET
ERIE, PA. 16512

1. MAIL ACKNOWLEDGMENT AND THREE COPIES OF YOUR INVOICE TO:

HERCULES INCORPORATED
IMPERIAL COLOR & CHEMICAL DEPT.
GLENS FALLS, N.Y. 12801

SHIP TO

HERCULES INCORPORATED
IMPERIAL COLOR & CHEMICAL DEPT.
GLENS FALLS, N.Y.

2. SHOW PURCHASE ORDER NO. ON EACH PACKAGE, PACKING SLIP, BILL OF LADING, INVOICE, AND ALL CORRESPONDENCE.

3. PACKING SLIP MUST ACCOMPANY ALL SHIPMENTS.

4. COPY OF PACKING SLIP, BILL OF LADING, OR EXPRESS RECEIPT MUST ACCOMPANY INVOICE.

5. TRANSPORTATION CHARGES APPEARING ON AN INVOICE MUST BE SUPPORTED BY RECEIPTED FREIGHT BILL OR RECEIPTED EXPRESS BILL.

FREIGHT ALLOWED TO**GLENS FALLS, N.Y.**

TERMS

NET 30

ITEM DESCRIPTION

CODE

QUANTITY

PRICE

UNIT

AMOUNT

Combustion equipment by Coen including the high pressure furnace cut-off; combustion controls by Bailey including flue gas outlet damper, and oil flow integrator; and 3 element feedwater control by Bailey all per quotation 5-5-67.

\$17,398.00
150.00
1,273.00
\$18,821.00

To be delivered with boiler by 10-9-67

REPLY TO THE FOLLOWING ADDRESS must be made before this order is placed.

Instructions
Repair Instructions
See Parts List

VENDOR'S COPY

Guardsman Bender

Causal No. 67-2700-C

THIS ORDER EXPRESSLY LIMITS ACCEPTANCE TO THE TERMS STATED HEREIN, AND ANY ADDITIONAL OR DIFFERENT TERMS PROPOSED BY THE SELLER ARE REJECTED UNLESS EXPRESSLY AGREED TO IN WRITING.

W. A. HOFFMAN, JR.
DIRECTOR OF PURCHASES

J.M. DRESLEY, BUYER, GLENS FALLS**D&E 00811**

2. VENDOR'S COPY

HER. 13328-10 REV. 3/66

STEAM GENERATING
EQUIPMENT

UNION IRON WORKS

SUBSIDIARY OF RILEY STOKER CORPORATION
ERIE, PENNSYLVANIA

PROCESS HEATING
EQUIPMENT

PLEASE REMIT TO:
UNION IRON WORKS
P.O. Box 2430 Church St. Station
New York 8, New York

Sold to Riley Stoker Corp.
Worcester, Mass.

Invoice Date 2-22-68

Our Order No. 13-90881

Shipped to Southwestern Oil & Refining Company
Corpus Christi, Texas

Your Order No. 118347-67079-60
Requisition No. 04276
Job Number

F.O.B. Erie, Pa. frt. allowed

Via

Terms Net 30

Car No.

One

125,000#/hr. UNION Type "MH" Steam
Generating Unit.

\$107,269.00

+ Additional Freight per Page 28 of
Proposal TA-52967

PRR-613975 - 40580# @ .03 cwt. =

12.17

PLE-1148 - 145720# @ .03 cwt. =

43.72

\$107,324.89

*Paid
3/18/68*

We hereby certify that these goods were produced in compliance
with all applicable requirements of Sections 6, 7 and 12 of the Fair
Labor Standards Act, as amended, and of regulations and orders of
the United States Department of Labor issued under Section 14 thereof.

Guadalupe Banda
Census No. 07-3700-0

D&E 00812

**SUBSIDIARY OF RILEY STOKER CORPORATION
ERIE, PENNSYLVANIA**

RE-PROJECTSouthwestern Oil & Refining Co.....
P.O. 57391
.....
UIW 5-90881

We are transmitting herewith the following drawings, status described below:

[illegible]

Remarks

Copies to	No.	Drawing Numbers
Houston	1	
Eng. File	1	

****STATUS CODE**
FD - For Distribution Only
FA - For Approval
A - Approved
AN - Approved as Noted
N - Not Answered

Yours very truly,
UNION IRON WORKS

By _____
W. T. Paulsen, Eng. Dept.

Guadalupe Banda
Case No. 67-37882

D&E 00813

SUBSIDIARY OF RILEY STOKER CORPORATION
P.O. BOX 896, ERIE, PENNSYLVANIA 16512

DATE**July 13, 1967**

RE: PROJECTYour P.O. 57391

..UIW..Contract S-20881

We are transmitting herewith the following drawings, status described below:

See our notations on "Approved as Noted" and "Not Approved" Drawings

Yours very truly,

UNION IRON WORKS

D&E 00814

By
W. T. Paulsen, Esq., Dep.

Guadalupe Banda
Canoa, Q., 01-870200

STATUS CODE	A - Approved
FD - For Distribution Only	AN - Approved as Noted
FA - For Approval	N - Not Approved

SUBSIDIARY OF RILEY STOKER CORPORATION
P.O. BOX 896, ERIE, PENNSYLVANIA 16512

DATE July 10, 1967

RE: PROJECT ~~YOUR~~ P.O. #57391

UDN/AS-90881

We are transmitting herewith the following drawings, status described below:

[illegible]

See our notations on "Approved as Noted" and "Not Approved" Drawings

Remarks ~~Not for approval - same as furnished on previous order~~
for distribution only.

Copies to	No.	Drawing Numbers
Houston, Tex.	1	
Eng. file	1	

Yours very truly,

UNION IRON WORKS

D&E 00815

By W. T. Paulsen, Esq.

STATUS CODE

FD - For Distribution Only
FA - For Approval

A - Approved
AN - Approved as Noted
N - Not Approved

Graduate Bonds
 Grade No. 01-07330

DRESSER
INDUSTRIAL VALVE & INSTRUMENT DIVISION
ALEXANDRIA, LOUISIANA 71301

June 28, 1967

RECEIVED
AT ERIE

JUL - 3 1967

8,9,10,11,12,1,2,3,4,5

Union Iron Works
Erie, Pennsylvania

Attention: R. L. Stokes

Reference: Your Purchase Order No. S-90881-1165
Our Order No. 10-20652-0
Your Letter Request Dated _____

Gentlemen:

In accordance with the requirements contained in your order/102800X referenced above, enclosed you will find the following literature:

<u>1</u> Copies of Reproducible Drawings	_____ For Approval
214516	
_____ Copies of Certified Drawings	<u>X</u> For Records
_____ Test Certificates	_____ Spare Parts
_____ Copies of Catalog No.	
<u>6</u> Copies of Instructions and Maintenance & Installation	
Manuals. #10	
_____ Other:	

Fabrication of this order is not being withheld pending receipt of your approval.

If further service can be given, please contact the undersigned.

Very truly yours,

Chester P. Cox, Jr.
Chester P. Cox, Jr.
Customer Service Representative

CPC/lm

Enclosure

Guadalupe Banda
Customer Service Rep.

D&E 00816

RECEIVED
AT ERIE

JUN 29 1967

8,9,10,11,12,1,2,3,4,5

DRESSER

INDUSTRIAL VALVE & INSTRUMENT DIVISION

ALEXANDRIA, LOUISIANA 71301

June 23, 1967

Union Iron Works
Erie, Pennsylvania 16512

Attention:

Reference: Your Purchase Order No. S-90881-1167
Our Order No. 41-20-664-0 & 40-20-665-0
Your Letter Request Dated

Gentlemen:

In accordance with the requirements contained in your order/letter referenced above, enclosed you will find the following literature:

<u>1</u> Copies of Reproducible Drawings	<u> </u> For Approval
<u>6</u> Copies of Certified Drawings	<u>X</u> For Records
<u> </u> Test Certificates	<u> </u> Spare Parts
<u> </u> Copies of Catalog No	
<u> </u> Copies of Instructions and Maintenance & Installation Manuals	
<u> </u> Other:	

Fabrication of this order is not being withheld pending receipt of your approval.

If further service can be given, please contact the undersigned.

Very truly yours,

David P. McCarty
David P. McCarty

Customer Service Representative
DPM/ww

Enclosure

Note: Parts list may be found in upper right hand corner of drawings.

A-5-2616-K

C-5-2360-B

B-5-2405-E

Guaranteed Parts

Guaranteed Parts

D&E 00817

SALES

ENG/9/140/17

PURCH.

PROD.

CONSTR/120/

SERVICE (2)

ACCOUNT.

CONTR. ADM.

(2) (3)

REF/14/14/17

PARTS

NET/14/17

ADV.

CONSTR/14/17

DET/14/17

G

RG

M

Hem/17

K

Cr

PH/17

U. I. W.

HOUSTON

RILEY STOKER CORPORATION WORCESTER, MASS.

PURCHASER

Southwestern Oil & Refining Co.
Corpus Christi, Texas

CONTRACT NO. 67079-60

PURCHASE ORDER NO. 57391

ORDER DATE May 24, 1967

SHIPMENT PROMISED Week of 12/4/67

ULTIMATE USER

As above

ORDER BASIS Material
Supt. - per diem basis

CONSULTING ENGINEER

None

SALES OFFICE

Houston
Union Iron Works

SCOPE

One (1) Union Iron Works type MH boiler
Generating 125,000 lbs. steam per hour
Operating at 425 psig, 600 F. total temp. from feed water at 240 F.
475 psig design pressure
Type of firing natural gas (Peabody burners)

U. I. W. contract S 90881 and
Riley P. O. to UIW No. 118347-67079 apply

The above is to be duplicate of one (1) unit furnished on Riley contract 65112-61
and UIW contract S 90755.

Gracklup Bands
Class No. 67-6700-0

CONTRACT RELEASE:

☐ ENGINEERING
☐ SPECIAL

☐ O.B.M.☒ FABRICATION☐ SHIPMENT

AUTHORIZATION:

P. O. 57391 of 5/24/67

ISSUED BY J. A. Rogers

DATE 6/5/67

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT SUMMARY

Rev. No. 0 DATE 6/5/67

D&E 00818

SALES	ENGRG/141/	PURCH.	PROD.	CONSTR/121	SERVICE (2)	ACCOUNT	CONTR. ADM. (2) (3)	REF/ADRY	PARTS	ME/141/	ADY/	CORRECTION/	DETROIT	G	R G	M	H/141/	K	Cr	D/1/	U. I. V.	HOUSTON
-------	------------	--------	-------	------------	-------------	---------	------------------------	----------	-------	---------	------	-------------	---------	---	-----	---	--------	---	----	------	----------	---------

CONTRACT STIPULATIONS

	PAGE NO.	REV. NO.
CONTRACT SUMMARY -----	1.0 -----	0
CONTRACT STIPULATIONS -----	2.0 -----	0
CONTRACT DOCUMENTS -----	3.0 -----	0
PRICE & TERMS -----	4.0 -----	0
TERMS OF PAYMENT -----	4A.0 -----	0
PRICE ADJUSTMENTS -----	4B.0 -----	Later
SPECIAL CONDITIONS -----	5.0 -----	0
MAIL DISTRIBUTION -----	6.0 -----	0
ERECTION LABOR & REPRESENTATIVE -----	7.0 -----	Per diem
SERVICE REPRESENTATIVE -----	8.0 -----	Per diem
PREDICTED PERFORMANCE -----	9.0 -----	0
GUARANTEED PERFORMANCE -----	10.0 -----	0
EQUIPMENT SUMMARY -----	11.0 -----	0

D&E 00819

CONTRACT NO. 67079-60
So. West Oil & Ref. Co.

CONTRACT STIPULATIONS

Rev. No. 6 Date 6/5/6

SALES

ENGRG/14

PURCH.

PROD.

CONSTR/22

SERVICE (2)

CONTR. ADM.

(2)

REF/ADBY.

PARTS

CORRELAYS/

DET/99W/

H99/

U. I. W.

HOUSTON

EQUIPMENT SUMMARYSUPPLY
SOURCE

U. I. W.

EQUIPMENTCODE/PAGE
NO.REV. NO.

"M" boiler with
 Steam purifier
 Drainable superheater
 Forced draft fan
 Finned tube economizer
 Gas and air ducts
 Peabody natural gas burners
 and accessories
 Ladders and platforms for
 front drum access.
 Rear drum access and
 economizer access.
 Split dampers for
 superheat control.
 Drum end covers and
 safety valve covers.
 #45 UV-1 ultraviolet scanners.
 Steam out conn. on burners.
 Seamless steel tubes.

Guadalupe Banda
 Cruise No. 67-6732-C

LEGEND: "R" BY RILEY

"P" BY PURCHASER

"U.I.W." BY UNION IRON WORKS

CONTRACT NO. 67079-60

EQUIPMENT SUMMARY

Rev. No

0

Date

6/5/67

CORRESPONDENCE DATA SHEET

Contract
Number S-90881

1. CONTRACT NAME

Southwestern Oil & Refining Co.
Corpus Christi, Texas

Purchaser's Order No. 118347-67079 - Riley to UIN
Purchaser's Order No. 57391 - Southwestern to Riley
UIN Contract No. S-90881
RSC Contract No. 67079-60

2. SEND COPIES OF CORRESPONDENCE TO:

Houston Office - Mr. A. D. Payne

3. SEND ENGINEERING CORRESPONDENCE & DRAWINGS TO:

Southwestern Oil & Refining Co.
Port and Summers Streets
P. O. Drawer 809
Corpus Christi, Texas - 78403

Attn: Mr. F. E. Kemp
Purchasing Agent

4. OTHER CORRESPONDENCE PERTAINING TO SHIPPING DATES, TRAFFIC, FIELD CONSTRUCTION AND LIKE SUBJECTS SHOULD BE SENT TO:

Above - Item 3

5. ALL CORRESPONDENCE PERTAINING TO ADDITIONS, DELETIONS TO CONTRACT OR PRICE CHANGES WILL BE SENT TO SALES OFFICE NAMED BELOW FOR TRANSMITTAL TO CUSTOMER -

Houston
Name of Sales Office

6. NUMBER OF BOILERS

One (1)

TYPE

"H"

LBS. STEAM/HR

125,000

F.O. Andrews
Salesman

Guadalupe Banda
Order No. 87-3732-C

D&E 00826

Sheet No. 1

UNION IRON WORKS
DIVISION OF RILEY STOKER CORPORATION

Order No. 90881

Purchaser: Riley Stoker Corporation, 1000 Broadway, Houston, Texas
Southwestern Oil and Refining Co., Corpus Christi, Texas

Date: May 28, 1967
Purchase Order: 13-2347-57075

LIST OF ITEMS FURNISHED BY SUBCONTRACTORS

ITEM	Incl. in Contract	Name of Subcontractor	P. Order No.	Erection by Whom	Erection P. Order	Shipping Date	Ship Where	Ship on Car
Foundations								
Stoker								
Pulverizer								
Gas & Oil Burners	Inc	Peabody						
AMCOBURNER Econ flms	Inc	Kentube						
INSTRUMENTS return	Inc	By Purchasing Dept.						
Leads	Inc	Sturtevant						
Motors								
Stokers								
Turbines								
Shut Blowers								
Fixed Water Regulators								
Instruments								
Controls								
Doors - Boiler								
" - Furnace								
Rubber trim	Inc	Misc vendors						
Welding Galvanizing	Inc	Hanlon-Greory						
Unload and Haul								
Erection								
Brickwork								
Insulation								
Armor								
Brands								
Insurance								
Services								
Vent Condenser								
Reboiler								
Drum Rolling	Inc	Titusville						

Remarks concerning above items-

Note: A. D. Payne letter 5/25/67 regarding 1000 BTU/HR Gas and fluid drilling

OK

FOA
4/2/69

Guadalupe Garcia
Cause No. 97-3737-C

D&E 00827

File

ORDER No. S-90881	DATE May 29, 1967
PURCHASER Riley Stoker Corporation	Purchase Order No. 118347-67079
Worcester, Mass.	Date May 23, 1967
FOR Southwestern Oil & Refining Company	Point Erie, Pa. (with rail frt alld)
AT Corpus Christi, Texas	
ROUTING NYC-Tol MKP-AES. DuPo-MoPa:	CLEARANCES Yes

INFORMATION & INSTRUCTIONS TO SHOP

No. Blrs. One (1)	Size 9198 ⁸⁰ Heating Surface	Type "HST"	475 # WP.	ASME & Texas
Sandblast No		Apex No	Assembled Yes	In Shop Yes In Field Yes
Continuous Capacity 125,000	P.P.H. at 425	Feet	600°F TT	Peak
Piping: Inc.	Soot Blower	Feed	Feed	
Wiring: F.W.R. Inc.	W.C. Inc.	Burner Inc	Driction Tools	
Special Inspection	By W.C. n		Supervision	
Painting (Shop Coats) None	(Make & Kind	None	Stack None	Ducts None
Cars Required—No. One (1)	Height 3' 4"	Length Std	Type Std	
Order of Shipment:				

Wanted Dec. 4, 1967 Promised Dec. 4, 1967

SUMMARY OF ITEMS FURNISHED BY UIW
(See attached Bill of Material for details)

FURN BY UIW	PARTS	FURN BY UIW	PARTS
F	Drums 42" x 18" x 18"	F	Drum End Covers Insulated
F	Steam Purifier Centrifugal	F	Damper Box - Smoke/Gas
F	Tubes - Main Bank 2"x. 105" seamless	F	Airheater SU or KD
F	- Sidewall ditto		- Tubes
	- Frontwall		- Frame & Tube Sheet
	- Bridgewall		- Casting
	- Clinkerchill	F	Economizer SU or KD
	Sidewall Assemblies	F	- Tubes
F	Suspension and Buckstays Std M	F	- Frames
	Rear Undercut - Steel	F	Superheater Headers 10-3/4" O.D.
	Front	F	- Castings
F	Burner, Front & Sidewall Box	F	- Tubes 2"x. 150" seamless
	Headern - Front		Plate Arch
	- Rear		- Baffle
	- Side		- Floor
	- Bridgewall	F	Tile, Baffle/Alonized Plate and refractory
F	Casings - Front #10 GA	F	Tile & Insulation
F	- Rear "	F	Ducts - Air Built UP or KD
F	- Side "	F	- Gas Built Up or KD
F	- Top "		Doors, Furnace, Boiler
	- Bridgewall	F	Castings
	Hoppers - Ash	F	Fittings
	- Cinder	F	Ladders & Walkways complete Galvanize
	- Plenum		Stack Built UP or KD
	- Sifting		" Supports or Base
	- Soot		Console
		F	Econ Steel
		F	Econ Hood

OK
TA.
5/2/67

Charles E. Banda
Cable No. 97-9723-C

File

ORDER No. S-90881 DATE May 29, 1967
PURCHASER Riley Stoker Corporation Purchaser's Order No. 118347-67079
Worcester, Mass. Date May 23, 1967
FOR Southwestern Oil & Refining Company H&P, Point Erie, Pa. (with rail frt alld)
AT Corpus Christi, Texas
ROUTING NYC-Tol MKP-A&S, DuPo-NoPas CLEARANCES Yes

INFORMATION & INSTRUCTIONS TO SHOP

No. Bls. One (1) Size 9798 H. Heating Surface - Type "MF" 475 # WP. ASME & Texas
Assembled Yes In Shop In Field
Sandblast No Apex: No P.P.H. at 425 Piping 600°F TT Peak
Continuous Capacity 125,000 Soot Blower Feed Fuel
Piping: Inc. Wiring: F.W.R. Inc. W.C. Inc. Burner Inc. Precision Tools
Special Inspection By Whom Supervision
Painting (Shop Coats) None (Make & Kind None Stack None Ducts None
Cars Required-No. One (1) Height 3' 4" Length Std Type Std
Order of Shipment:

Wanted Dec. 4, 1967 Promised Dec. 4, 1967

SUMMARY OF ITEMS FURNISHED BY UIW
(See attached Bill of Material for details)

FURN BY UIW	PARTS	FURN BY UIW	PARTS
F	Drums 42" x 18" x 18"	F	Drum End Covers Insulated
F	Steam Purifier Centrifugal	F	Damper Box - Shocking
F	Tubes - Main Bank 2"x. 105" seamless		Airheater SU or KD
F	- Sidewall ditto		- Tubes
	- Frontwall		- Frame & Tube Sheet
	- Bridgewall		- Casing
	- Clinkerchill	F	Economizer SU and KD
	Sidewall Assemblies	F	- Tubes
F	Suspension and Buckstays Std M	F	- Frames
	Rear Undercut - Steel	F	Superheater Headers 10-3/4" O.D.
	Front	F	- Casings
F	Burner, Front & Windbox	F	- Tubes 2"x. 150" seamless
	Headers - Front		Plate Arch
	- Rear		- Baffle
	- Side		- Flange
	- Bridgewall	F	Tile, Baffle Alonized Plate and refractory
F	Casings - Front #10 GA	F	Tile & Insulation
F	- Rear "		Ducts - Air Built UP or KD
F	- Side "	F	- Gas Built UP or KD
F	- Top "		Doors, Furnace, Boiler
	- Bridgewall	F	Castings
	Hoppers - Ash	F	Fittings
	- Cinder	F	Ladders & Walkways complete - Salvaged
	- Plenum		Stack Built UP or KD
	- Sifting		Supports or Base
	- Soot		Console
		F	Econ Steel
		F	Econ Hood

Guadalupe Banda 100668K
Caucho No. 57-5703-0

D&E 00829

UNION IRON WORKS
DIVISION OF RILEY STOKER CORPORATION

File

Furnish Riley Stoker Corporation Date June 19, 1967
Worcester, Mass. Contract No. S-90881
For Southwestern Oil & Refining Co. Riley 118347-67079
Corpus Christi, Texas Purchaser's Order No. 57891 SW to RSC
Ship Via _____ Purchaser's Order Date 5/23/67
Shipping Date _____

CHANGE ORDER NO. 1

Seamless tubes are required for both the boiler tubes and the
superheater tubes on this contract. Purchasing and Engineering
Departments should keep this in mind when specifying, designing
and ordering the boiler and superheater tubing.

T. O. Andrews
T. O. Andrews

Subsidiary

UNION IRON WORKS

DIVISION OF RILEY STOKER CO. PORTLAND

ERIE, PA.

SHEET #1 of 2

SHIPPING MEMORANDUM

TO Southwestern Oil & Refining Co.

DATE 2-10-68

Corpus Christi, Texas

OUR ORDER S-90881

YOUR ORDER 57391

VIA NYC-Tol.-H&W-A&S-Dupo-MoPac - Ppd.

CAR NO. PLE-1148

Riley P/O 118347-67079-60

Description

Dwg. No.

2ND SHIPMENTCOMPLETE

1 Pc Size 9198 sq. ft. type "MH" Hr. set up & marked:

S

Nat'l. Bd.

4154

UNION I. W.

23558

WP-475

EHS-8350

WWHS-848

1968

1 - Suphtr. Outlet Header -(marked)

S

Nat'l. Bd.

4154

UNION I. W.

23558

WP-475

SHHS-785

1963

1 Ctn. #1 containing:

34 - 1" Dia x 7 1/2" steel rollers

BTS-2059

1 Ctn. #3 containing:

16 - 7/8" x 6" Alloy Studs w/ 2 nuts ea. (Item 59)

W-1177A

2 - Gaskets for 4"-600# Flg. Flex.

(Item 60)

1 - 2" Sch. 80 Pipe x 5 1/2" lg. (MK-17)

HTD-5523A

1 - Weld Ring for 2" Sch. 80 Pipe

MK-18

1 - 2"-600# W.N. Flg.

1 Pc MK-20

1 - 2" Sch. 80 Pipe x 7 1/2" lg.

MK-21

1 - 2"-3000# S.W. 90° Elbow

MK-22

1 - 2"-600# Blind Flg. (MK-19)

8 - 5/8" x 4 1/2" Alloy Studs w/ 2 nuts ea.

1 - 2"-600# Flex. Gaskets

1 - 2" Sch. 80 Pipe x 5 1/2" lg. (MK-17)

HTD-5523B

1 - Weld Ring for 2" Sch. 80 Pipe

(MK-18)

1 - 2"-600# W.N. Flg.

(MK-20)

1 - 2" Sch. 80 Pipe x 7 1/2" lg.

1 Pc (MK-21)

1 - 2"-3000# S.W. 90° Elbow

(MK-22)

1 - 2"-600# Blind Flg. (MK-19)

8 - 5/8" x 4 1/2" Alloy Stud w/ 2 nuts ea.

1 - 2"-600# Flex. Gasket

Guadalupe Bank

Case No. 01-375210

D&E 00831

Subsidiary

FEDERAL STEEL INDUSTRIES CO., INC.

PHILADELPHIA, PA.

SHEET #2 of 2

OFFERING INFORMATION

TO Southwestern Oil & Refining Co.DATE 2-10-68Corpus Christi, TexasOUR ORDER S-90881YOUR ORDER 57391VIA NYC-Tol.-N&W-A&S-Supo-MoPac - Ppd.CAR NO. PLR-1148Riley P/O 118347-67072-60

Description

Dwg. No.

- | | |
|-------|---|
| 1 Pc | 4" Feed Piping Assen. consisting of |
| | Items 57-58-61-62-63-64-65 |
| 2 Pcs | #10 Ga Pl. x 22-3/8" x 2'-2" Drum End (MK-13) |
| | Covers (Insulated) (Rear) |
| 2 " | #10 Ga Pl. x 22-3/8" x 2'-2" Drum End (MK-19) |
| | Covers (Insulated) (Front) |

W-1177AHTD-6638Guadalupé Banda
Cance No. 67-8733-C

D&E 00832

UNION IRON WORKS
 Subsidiary ~~EXXON~~ OF RILEY STOKER CORPORATION
 ERIE, PA.

SHEET #1 of 5

SHIPPING MEMORANDUM

TO Southwestern Oil & Refining Co.

DATE 2-7-68

Corpus Christi, Texas

OUR ORDER S-90881

YOUR ORDER 57391

VIA NXC-ESTLouis-A&S-MoPac - Rpd.

CAR NO. FRR-613975
 Riley P/O 118347-67079-60

		Description	
<u>1ST SHIPMENT</u>		<u>PARTIAL</u>	<u>Dwg. No.</u>
1 Pc		Economizer (set up & marked)	
	S		
		Nat'l. Bd.	
		4154	
		UNION I. W.	
		23558	
		WF-725	
		Econ. HS-7310	
		1968	
1 Pc		3/16" Pl. Gas Duct (GD-1)	HTD-5535
1 "		3/16" " Econ. Hood (EH)	HTD-5536
1 "		Ladder (Galvanized) (L-1)	HTD-5538
1 "		" " (L-5)	
1 "		" " (L-4)	
1 "		" " (L-2)	HTD-5538B
1 "		" " (L-3)	
1 "		6" Chan. Walkway Frame (Unit #4) (Galv.)	HTD-55380
1 "		6" " " " " #5	HTD-5538
1 "		6" " " " " #1	HTD-5538B
1 "		6" " " " " #2	
1 "		6" " " " " #3	
1 "		6" " Support Beam (B-12)	HTD-55380
1 Skid cont.:			
1 -		Area 2'-5 1/2" x 19'-11 1/2" Galv. Mitco Grating	HTD-5538
1 -		" 4'-5 1/2" x 6'-11 1/2" " " "	
1 -		" 4'-11 1/2" x 12'-9 1/2" " " "	HTD-5538B
1 -		" 2'-5 1/2" x 10'-11 1/2" " " "	
1 -		" 4'-5 1/2" x 12'-3 1/2" " " "	
2 Pos		1" x 3" x 3" Angle Knee Brace (KB-1R/L)	HTD-55380
1 Pc		1" x 3" x 3" " " " (KB-2)	
2 Pos		1" x 3" x 3" " " " (KB-3)	
4 "		1" x 3" x 3" " " " (KB-4)	
1 Pc		1" x 3" x 3" " " " (KB-5)	
5 Pos		1" Pl. x 16" x 2'-6" Support Plates (KB-6)	
1 Pc		Front Econ. Beam (B-1)	HTD-5539
		14 WF x 13'-3" lg.	
1 Pc		Rear Econ. Beam (B-2)	
		14 WF x 13'-3" lg.	
1 "		Side Econ. Beam (B-3)	
		14 WF x 14'-10 1/2" lg.	

Quadrant Data
 Census No. 57-5730-C

D&E 00833

UNION IRON WORKS
 Subsidiary ~~OF RILEY STOKER CORPORATION~~

ERIE, PA.

SHEET#2 of 5.....

SHIPPING MEMORANDUM

TO <u>Southwestern Oil & Refining Co.</u>	DATE <u>2-7-68</u>
<u>Corpus Christi, Texas</u>	OUR ORDER <u>S-90881</u>
	YOUR ORDER <u>57391</u>
VIA <u>NYC-EStLouis-A&S-MoPas - Fpd.</u>	CAR NO. <u>PRR-613975</u>
	<u>Riley P/O 118347-67079-60</u>

Description		Dwg. No.
1 Pc	Side Eoon. Beam (B-4)	HTD-5539A
	14 WF x 14'-10 1/2" lg.	
1 "	3/8" x 3" x 3" Eoon. Cross Bracing (B-8)	"
1 "	3/8" x 3" x 3" " (B-9)	"
1 "	3/8" x 3" x 3" " (B-10)	"
1 "	3/8" x 3" x 3" " (B-11)	"
1 "	Front Column (C-1L)	HTD-5539B
	8 WF x 20'-10" lg.	
1 "	Front Column (C-1R)	"
	8 WF x 20'-10" lg.	
1 "	Rear Column (C-2R)	"
	8 WF x 20'-10" lg.	
1 "	Rear Column (C-2L)	HTD-5539C
	8 WF x 20'-10" lg.	
1 "	Rear Beam (B-5)	"
	8 WF x 13'-3"	
1 "	Right Side Beam (B-6)	"
	8 WF x 14'-10 1/2"	

2 Bils. cont.:

2 - 1 1/2"	Galv. Fence Pipe	x 6'-0-7/8"	(R-1A)	HTD-5538A
2 - "	"	x 3'-8-5/8"	(R-1B)	"
2 - "	"	x 4'-10 1/2"	(R-2A)	"
2 - "	"	x 3'-8-5/8"	(R-2B)	"
4 - "	"	x 3'-4-5/8"	(R-2C)	"
2 - "	"	x 2'-2-5/8"	(R-2D)	"
2 - "	"	x 16"	(R-2E)	"
2 - "	"	x 3'-6"	(R-3A)	"
2 - "	"	x 3'-8-5/8"	(R-3B)	"
1 - "	"	x 3'-8-5/8"	(R-4A)	"
2 - "	"	x 4'-2-5/8"	(R-4A)	"
3 - "	"	x 3'-8-5/8"	(R-4B)	"
1 - "	"	x 2'-2-5/8"	(R-4C)	"
2 - "	"	x 4'-0 1/2"	(R-4E)	"
2 - "	"	x 19'-9 1/2"	(R-5A)	"
2 - "	"	x 3'-8-5/8"	(R-5B)	"
2 - "	"	x 2'-2-5/8"	(R-5C)	"
4 - "	"	x 3'-8-5/8"	(R-7A)	HTD-5538D
2 - "	"	x 10'-9 1/2"	(R-8A)	"
2 - "	"	x 12'-0 1/2"	(R-8B)	"
2 - "	"	x 3'-8-5/8"	(R-8C)	"
3 - "	"	x 2'-2-5/8"	(R-8E)	"
2 - "	"	x 13'-3/8"	(R-9A)	"
2 - "	"	x 3'-4 1/2"	(R-9B)	"

Guadalupe Banda
 Census No. 67-8700-C

D&E 00834

UNION IRON WORKS
Subsidiary STEELWORKS OF ERIE STEEL CORPORATION
ERIE, PA.

SHEET #3 of 5

SHIPPING MEMORANDUM

TO Southwestern Oil & Refining Co.
Corpus Christi, Texas

DATE 2-7-68

OUR ORDER S-90881

YOUR ORDER 57391

VIA NYC-ESTLouis-A&S-MoPac - Ppd.

CAR NO. PRR-613975
Riley P/O 118347-67079-60

Description	DWG. No.
1 Box #1 cont.:	
2 - 58694 Ignitor Assem.	} For Peabody Burner
2 - D-29770 Diffuser Pipe & Cup Assem.	
6 1/2" - 2356-41 Packing	
1 - C56054 Transformer Box	
2 - B-9905 Diffusers	
2 - E-46996 Harness Assem.	
2 - D-47647 1/2" Flex. Hose	
1 Box #2 cont.:	
1 - Flat Glass Insert 3-1/8" x 2-5/8" x 19 1/2"	} For Water Column
1 - WP1-FG909 Illuminator Assem. including	
1 - WPH-FG909 Direct Vision Hood	
1 - WPH-FG909 Illum. Hood	
1 - FG909X Illum. w/ Vert. Lamp Hsg.	
1 - WP1-FG909 Illuminator Assem. including	
1 - WPH-FG909X Flg. Direct Vision Hood	
1 - WPH-FG909 Illum. Hood	
1 - FG909X Illum. w/ Vert. Lamp Hsg.	
1 - Intermediate Mirror w/ Flanged Hood	
1 - #1 Floor Stand w/ Mirror	
1 - Lock for 1 1/2" Hancock #970W Valve (Item 3)	W-1177A
1 - 1/2" #848Y Edward Globe Valve " 10	"
1 - 1/2" #848Y " " " 11	"
1 - Tertrice BX-13406 Thermometer " 13	"
Range 100° to 550°	
1 - Gasket for 1 1/2"-600 RF Flg. " 67	"
4 - 1/2" x 5" Alloy Stud w/ 2 nuts ea. " 68	"
1 - 5/16" x 2 1/2" x 2 1/2" x 2'-3" lg. " 88	"
1 - #443 U-Bolt " 89	"
3 - Gags for Cons. Safety Valves Item 2-3-9	W-1178A
1 - 8 1/2" Ashcroft #1377A Steam Gage " 6	"
0-800# w/ 1/2" Syphon	
1 - Tertrice #BX-13406 Thermometer " 11	"
Range 400° to 850°F	
1 - 1/2" Scr'd. Union - 3000# " 35	"
1 - 1/2"-90° Scr'd. Ell 2000# " 36	"
1 - 1/2" Sch. 80 Pipe x 1'lg. " 39	"
1 - 1/2" " " " x 1' " 54	"
8 - 5/8" x 4 1/2" Alloy Stud w/ 2 nuts ea. - Item 57	"
1 - Gasket for 2"-600# RF Flg. Flex. " 58	"
8 - 1/2" x 5" Alloy Stud w/ 2 nuts ea. " 60	"
1 - Gasket for 2 1/2"-600# R.F. Flg. (Flex.) " 61	"
4 - 1/2" x 4 1/2" Alloy Stud w/ 2 nuts ea. " 63	"

Carroll's Branch
Carroll's Branch

D&E 00835

Subsidiary UNION IRON WORKS
DIVISION OF RILEY STEEL CORPORATION

ERIE, PA.

SHEET #4 of 5

SHIPPING MEMORANDUM

TO Southwestern Oil & Refining Co.

DATE 2-7-68

Corpus Christi, Texas

OUR ORDER S-90881

YOUR ORDER 57391

VIA NYC-ESTLouis-A&S-MoPac - Pdd.

CAR NO. PRR-613975

Riley P/O 118347-67079-60

Description

Dwg. No.

Box #2 continued:

1 - Gasket for 1 1/2"-600# RF Flg.	Item 64	W-1178A
25 lin. ft. - 1/2" Dia Fiber Frax Rope		BTS-2059
10# - Stic-Tite Cement		"
2 - 12" x 16" MH Gaskets (SS Flex.)		HTD-5523
1 - 2"-600# Blind Flg. (MK-11)		"
8 - 5/8" x 4 1/2" Alloy Studs w/ 2 nuts ea. (MK-1)		"
1 - 2"-600# SS Flex. Gaskets (MK-13)		"
34 - 3 1/2" x 4 1/2" HH Gaskets (Flex.)		HTD-5523A
1 - 1" Steel Pipe Plug (MK-15)		"
34 - 3 1/2" x 4 1/2" HH Gaskets (Flex.)		HTD-5523B
1 - 1" Steel Pipe Plug		"
4 - 1/2" x 1 1/2" Bolts w/ Nuts		HTD-5532
4 - 1/2" x 1 1/2" "		HTD-5535
4 - 1/2" x 1 1/2" "		HTD-5536
14 - 1/2" x 1 1/2" " & Nuts (Galv.)		HTD-5538
20 - 1/2" x 1 1/2" " "		"
22 - 1/2" x 1 1/2" " & Nuts		HTD-5538A
1 - 1 1/2" Galv. Fence Pipe x 16" (R-4D)		"
2 - 1 1/2" " x 16" (R-5D)		"
20 - 1/2" x 1 1/2" lg. Bolts (Galv.)		HTD-5538B
12 - 1/2" x 1 1/2" " Nuts (Galv.)		"
8 - 1/2" x 1 1/2" " " "		"
9 - 1/2" x 1 1/2" " " "		HTD-5538C
38 - 1/2" x 1 1/2" " " "		"
3 - 1 1/2" Galv. Fence Pipe x 16" (R-8D)		HTD-5538D
4 - 1/2" x 1 1/2" Bolts (Galv.)		"
64 - 1/2" x 1 1/2" " "		"
20 - 1/2" x 1 1/2" " Nuts (Galv.)		HTD-5539B
6 - 1/2" x 2 1/2" " & Washers		HTD-5543A
4 - 2 1/2" x 3 1/2" HH Gaskets (Flex.)		HTD-5543D
4 - 1/2" x 1 1/2" Bolts & Nuts		HTD-5544
8 - 1/2" x 1 1/2" " " "		HTD-5546
2 - 3 1/2" x 4 1/2" HH Gaskets (Klingerit)		HTD-5540
2 - Gaskets for 8"-600# W.W. Flg. (MK-10)		HTD-5540A
24 - 1-1/8" Dia x 8 1/2" Alloy Studs w/ 2 nuts ea. (MK-11)		"

1 Drum #1 containing:

16 - #64-7 Railing Support (Kee Klamp)	HTD-5538
15 - #10-7 Single Socket Tee	"
14 - #15-7 90° Elbow	"
3 - #25-7 90° Three Socket Tee (Kee Klamp)	"
5 - #26-7 Two Socket Cross	"
2 - #20-7 Side Outlet Elbow	"

Guadalupe Bend
Carroll No. CT-5733-C

D&E 00836

Subsidiary

SHEET #5 of 5

SHEET #5 of 5

SHEET #5 of 5

TO Southwestern Oil & Refining Co.

DATE 2-7-68

Corpus Christi, Texas

OUR ORDER S-90881

YOUR ORDER 57391

VIA NYC-ESTLouis-A&S-MoPac - Fpd.

CAR NO. PRR-613975

Riley P/O 118347-67079-60

Drum #1 continued:

Description

DWG. No.

- 4 - #15-7 90° Elbow (Kee Klamp)
- 9 - #10-7 Single Socket Tee (Kee Klamp)
- 1 - #20-7 Side Outlet Elbow
- 7 - #64-7 Railing Support
- 3 - #25-7 90° Three Socket Tee
- 3 - #26-7 Two Socket Cross
- 2 - #62-7 Railing Std. Flg.

HTD-5538D

1 Pc 3/8" x 3" x 3" Angle Knee Brace (KB-7)

1 Ctn. #2 containing:

- 1 - Lower Suphtr. Drain Assem. consisting of Item 8
- Items 28-29-30
- 1 - Boiler Vent & Steam Sampling Pipe Assem. consisting of:
- Items 4-10-42 thru 53
- 4 - 1/2" x 4 1/2" Alloy Stud w/ 2 nuts ea. (Item 43)
- 1 - Gasket for 1 1/2"-600# R.F. Flg.

W-1178A
HTD-6640

W-1178A

- 1 Pc Blow-off Piping Assem. consisting of Items 1-15 thru 21
- 1 " 2" Cons. #1811KA Safety Valve (Item 2) set @ 475# w/ spring cover attached
- 1 " 2 1/2" Cons. #1811LA Safety Valve (Item 3) set @ 480# w/ spring cover attached
- 1 " 1 1/2" Cons. #1811JA Safety Valve (Item 9) set @ 450# w/ spring cover attached
- 1 " 1 1/2" Cons. #1912-30GC Relief Valve (Item 12) set @ 725# w/ Lever
- 1 " 8" Chan. Damper Box (DB-1)
- 1 " 1" x 3" x 3" Angle Air Duct (AD-1)
- 1 " 8" Supt. Heater Supply Pipe consisting of Items 1-2-3-4-6-7-8

W-1177A

HTD-2343

HTD-2343

HTD-6640A

Cushman-Bond
Caus No. 07-8700.C

D&E 00837

PEABODY ENGINEERING CORPORATION

PEABODY LIMITED, PEABODY HOUSE, LONDON, S. W. 1, ENGLAND • PEABODY ENGINEERING CORPORATION, 232 MADISON AVENUE, NEW YORK, N. Y. 10017 • ONTARIO, CANADA

232 MADISON AVENUE, NEW YORK, N. Y. 10017

TELEPHONE: 683-4100

CABLE ADDRESS "PEBENGCOR"

T W X 710-581-3400

ERIC G. PETERSON
CHAIRMAN

JOHN DUNN
PRESIDENT

Peabody Proposal No. 45550
South Western Oil & Refining
Corpus Christi, Texas

8,9,10,11,12,1,2,3, 5

May 17, 1967

Union Iron Works
Erie
Pennsylvania

Attention: Mr. T.O. Andrews

Gentlemen:

We are pleased to submit herewith our quotation covering duplicate equipment of your Purchase Order No. S-90755-67987, our Job No. 4349. It is our understanding that one (1) boiler set of equipment only would be required at this time.

The equipment we propose to furnish would be as follows:

- 1 - Windbox, fabricated of $\frac{1}{2}$ " steel plate with open back for welding to the boiler front. The windbox will be provided with an opening in one side with a transition piece between the windbox to the edge of the boiler.
- 2 - Peabody Type MT-23, forced draft registers complete with gas ring, and scanner ball socket adaptors.

All of the equipment will be suitably arranged for pressurized furnace firing. One of the two registers will be equipped with swing front hinges.

- 2 - Sets special rifled refractory burner throat tile shipped loose.
- 2 - Type FPM gas-electric ignitors with transformers, electrodes, and flexible gas hose.
- 1 - NEMA 4 weather proof enclosure for mounting to ignition transformers.

Except where noted all of the above equipment will be mounted on to the windbox.

S90881

Guadalupe Garcia
Cable No. 07-3732-0

D&E 00838

Peabody Proposal No. 45550

May 17, 1967

Page 2

The total price for the above equipment for one (1) boiler is FOUR THOUSAND EIGHT HUNDRED FIFTY DOLLARS (\$4,850.00) Net, FOB shipping points.

The total weight is approximately 4100 lbs. of burner equipment from Stamford, Connecticut, and 1200 lbs. of burner throat tile from Mexico, Missouri.

In the event two (2) boiler sets of equipment are purchased at one time, the total price for two (2) boilers would be NINE THOUSAND FOUR HUNDRED DOLLARS (\$9,400.00) Net, FOB shipping points.

For a price addition of ONE HUNDRED SIXTY SIX DOLLARS (\$166.00) ^{INC} Net, FOB Stamford, Connecticut, we will furnish for one (1) boiler two (2) Fireye No. 45UV1 flame scanners mounted on above quoted registers.

For a price addition per boiler of EIGHTY DOLLARS (\$80.00) ^{INC} Net, FOB Stamford, Connecticut, we will furnish two (2) gas ring steam out connections including piping and manual shut-off valve at windbox edge.

The above prices are subject to change to those in effect at time of shipment.

Please refer to the following page for our standard terms, tax, acceptance and guarantee clauses:

COST	SP
4850	5577
166	288
80	5865
5096	5096
	769

Guarantee Bonds
Cause No. 97-3722-C

51-181

D&E 00839

STANDARD TERMS

Prop. # 45550

May 17, 1967

Page 3

TERMS OF PAYMENT: Net, thirty days from date of shipment. In case shipment of this material is delayed for a period of thirty days or longer, through no fault of Peabody Engineering Corporation, then payment for all material and equipment ready for shipment shall become due and payable. All agreements are contingent upon strikes, fires, accidents, or delays of any nature beyond our control. The title and right of possession to the equipment herein specified remain in this Company until all payments hereunder (including deferred payments) shall have been fully made in cash, and it is agreed that the said equipment shall remain the personal property of this Company, whatever may be the mode of its attachments to realty or otherwise, until fully paid for in cash.

PRICE: The above price is subject to increase by any federal, state and/or municipal tax which applies to this transaction, and such applicable taxes will be billed as a separate item.

The price includes up to 8 sets of drawings and up to 8 operating manuals (English language). The drawings will include all necessary dimensions for erection of this equipment in the field by others. Piping drawings will be of the single line schematic type showing necessary dimensions where required. In the event additional copies of drawings and operating manuals are required, they will be charged for as an extra at \$5.00 per set.

All equipment offered above meets accepted standards. Should any specific compliance with codes not stated in this proposal be required, any modifications to comply therewith will result in an addition to the above price.

ACCEPTANCE: No contract is binding on Peabody Engineering Corporation until signed by an officer of the Company. It is understood that if this proposal is not accepted within thirty days from date, we will then have the option of withdrawing or revising the quotation.

WARRANTY: We will guarantee the above equipment to be first class in every respect as to workmanship and material. Should any material prove defective within one year after shipment due to faulty material or improper workmanship we will furnish, without charge to the purchaser, replacement of said defective part or parts f.o.b. our shop with rail freight allowed to job site. On material not of our manufacture the manufacturer's guarantee to us is extended. This paragraph does not cover ordinary wear and tear, corrosion, faulty packaging on reshipment, or improper handling or storage after leaving our point of shipment. This Company shall not be held liable for any contingent damages or delays and will make no allowance for repairs or alterations made by the purchaser, unless made with the prior written consent of an officer of this Company.

Seller makes no other warranties, express or implied, except as herein specifically set forth.

SUPERINTENDENCE: Should the purchaser so desire, we will furnish a competent man, for the sum of \$75.00 per man-day plus travel and living expenses, to superintend the installation of the above equipment by others, to assist in putting this equipment in operation, to conduct performance tests and to instruct the personnel. Where the price quoted is stated to cover service it is understood that all equipment, material, piping and wiring whether furnished by Peabody or by others, is to be in proper condition ready for start-up and operation. Any waiting time or time spent beyond the stated service period through no fault of Peabody Engineering Corporation will be charged at the stated per diem rate plus expenses.

We thank you very much for this opportunity to quote and if we can be of any further service, please do not hesitate to call upon us.

Accepted FG:rm
Letter in Duplicate

Yours very truly,

PEABODY ENGINEERING CORPORATION

By

Frank Gullo

STANDARD TERMS

Prop. # 45550

May 17, 1967

Page 3

TERMS OF PAYMENT: Net, thirty days from date of shipment. In case shipment of this material is delayed for a period of thirty days or longer, through no fault of Peabody Engineering Corporation, then payment for all material and equipment ready for shipment shall become due and payable. All agreements are contingent upon strikes, fires, accidents, or delays of any nature beyond our control. The title and right of possession to the equipment herein specified remain in this Company until all payments hereunder (including deferred payments) shall have been fully made in cash, and it is agreed that the said equipment shall remain the personal property of this Company, whatever may be the mode of its attachments to realty or otherwise, until fully paid for in cash.

PRICE: The above price is subject to increase by any federal, state and/or municipal tax which applies to this transaction, and such applicable taxes will be billed as a separate item.

The price includes up to 8 sets of drawings and up to 8 operating manuals (English language). The drawings will include all necessary dimensions for erection of this equipment in the field by others. Piping drawings will be of the single line schematic type showing necessary dimensions where required. In the event additional copies of drawings and operating manuals are required, they will be charged for as an extra at \$5.00 per set.

All equipment offered above meets accepted standards. Should any specific compliance with codes not stated in this proposal be required, any modifications to comply therewith will result in an addition to the above price.

ACCEPTANCE: No contract is binding on Peabody Engineering Corporation until signed by an officer of the Company. It is understood that if this proposal is not accepted within thirty days from date, we will then have the option of withdrawing or revising the quotation.

WARRANTY: We will guarantee the above equipment to be first class in every respect as to workmanship and material. Should any material prove defective within one year after shipment due to faulty material or improper workmanship we will furnish, without charge to the purchaser, replacement of said defective part or parts f.o.b. our shop with rail freight allowed to job site. On material not of our manufacture the manufacturer's guarantee to us is extended. This paragraph does not cover ordinary wear and tear, corrosion, faulty packaging on reshipment, or improper handling or storage after leaving our point of shipment. This Company shall not be held liable for any contingent damages or delays and will make no allowance for repairs or alterations made by the purchaser, unless made with the prior written consent of an officer of this Company.

Seller makes no other warranties, express or implied, except as herein specifically set forth.

SUPERINTENDENCE: Should the purchaser so desire, we will furnish a competent man, for the sum of \$75.00 per man-day plus travel and living expenses, to superintend the installation of the above equipment by others, to assist in putting this equipment in operation, to conduct performance tests and to instruct the personnel. Where the price quoted is stated to cover service it is understood that all equipment, material, piping and wiring whether furnished by Peabody or by others, is to be in proper condition ready for start-up and operation. Any waiting time or time spent beyond the stated service period through no fault of Peabody Engineering Corporation will be charged at the stated per diem rate plus expenses.

We thank you very much for this opportunity to quote and if we can be of any further service, please do not hesitate to call upon us.

Accepted FG:rm
Letter in Duplicate

Yours very truly,

PEABODY ENGINEERING CORPORATION

By

Frank Gullo

General Manager

Contract No. 37-5700-0



Westinghouse Electric Corporation

PLANTS
Staunton, Va.
Boston, Mass.
Elyria, Ohio
San Francisco, Calif.

Union Iron Works
Erie, Pennsylvania 16512

Attn: T. O. Andrews

Air Conditioning - Sturtevant Divisions

HEADQUARTERS
Box 510
Staunton, Va.

Sales Office

1945 W. Market St., Akron, Ohio 44313

INSTALLATION

QUOTATION NO.

PAGE

DATE

~~XXXXXX~~ Southwestern Oil & Refining Co.
Corpus Christi, Texas

42-PA-2021

1 of 1

3-17-67

TERMS OF PAYMENT

25TH PROX ☐

NET 30 ☒

FROM DATE OF INVOICE

TERMS OF SHIPMENT: F.O.B. CARS AT SHIPPING POINT

PP-ALLOWED ☒

PP/ADD. ☐

COLLECT ☐

ENGINEER

We propose to furnish the apparatus specified below at prices stated and in accordance with the terms and conditions shown on the reverse side.

QUANTITY	DESCRIPTION	AMOUNT														
One (1)	FORCED DRAFT FAN: Size 4040 H.D. Airfoil Fan, SWSI, open inlet, Class 1800 RPM, Arr.3 with 1/4" housing and 2-15/16" dia. self aligning ball bearings mounted on independent pedestals. Housing split for wheel removal & equipped with an access door. Est. Wgt. = 3,270 Lbs. INCLUDING: 10% Turbine Trip Out Inlet Screen Design 8A Inlet Vane Control Bearing Sole Plates Rain Hood One (1) Casing Drain Connection Mounting Half Coupling Size #263 DEZ Thomas Flex. Cplg. Coupling Guard <u>PERFORMANCE</u> <table><tr><td><u>Q/HR.</u></td><td><u>CFM</u></td><td><u>S.P.</u></td><td><u>TEMP</u></td><td><u>WPM</u></td><td><u>HP</u></td><td><u>ELEV.</u></td></tr><tr><td>151,200</td><td>36,000</td><td>21.60"</td><td>105°</td><td>1770</td><td>143.0</td><td>S. L.</td></tr></table> WM² = 616 Lbs.Ft.²	<u>Q/HR.</u>	<u>CFM</u>	<u>S.P.</u>	<u>TEMP</u>	<u>WPM</u>	<u>HP</u>	<u>ELEV.</u>	151,200	36,000	21.60"	105°	1770	143.0	S. L.	\$4,163.00
<u>Q/HR.</u>	<u>CFM</u>	<u>S.P.</u>	<u>TEMP</u>	<u>WPM</u>	<u>HP</u>	<u>ELEV.</u>										
151,200	36,000	21.60"	105°	1770	143.0	S. L.										

Plus any tax or charge now existing or hereafter imposed by Federal, State or Municipal authority upon merchandise or service herein described or the production, sale, distribution, or delivery thereof, or upon any feature of this transaction.

☐ The equipment listed is the result of a review of the plans and specifications of the subject job.

Respectfully Submitted

Westinghouse Electric Corporation
Air Conditioning - Sturtevant Divisions

Accepted _____
DATE

By _____

840881

Order No. 07-67020

AGENT

J. A. Smith

See reverse side for price policy, terms and conditions

D&E 00842

FINAL DESIGN AND CALCULATION BASIS

Job Name SOUTHWESTERN OIL REFINING CO Designer T. O. A

Contract No. 5-90881 Date 5/29/67

1. Performance Guaranteed for coal -
oil - Firing
gas -

2. Manufacturer of Firing Equipment PERBODY ENGINEERING CORP.

3. Fuel Analysis

Coal - Wt. %		Oil - Wt. %	Gas - Vol. %
Prox.	Ult.		
M	C	C	CH ₄ <u>85.00</u>
VM	H ₂	H ₂	C ₂ H ₆ <u>4.00</u>
FC	S	S	C ₃ H ₈ <u> </u>
A	O ₂	O ₂	C ₄ H ₁₀ <u> </u>
100.0	N ₂	N ₂	C ₅ H ₁₂ <u> </u>
BTU/#(AR)	H ₂ O	ASH	H ₂ <u>8.00</u>
FTA	ASH	100.0	<u> </u>
	100.0	BTU/lb	N ₂ <u>3.00</u>
			O ₂ <u> </u>
			CO ₂ <u> </u>
			100.0

BTU/FT³(60 °F, 30" Hg) 956
BTU/LB 22,940

4. Included with Steam Generating Unit:

Boiler 8350 Sq. Ft.
Water Walls 848 Sq. Ft.
Superheater 785 Sq. Ft. -See Calc. Sheet
Air Heater Sq. Ft. -See Calc. Sheet
Economizer 7310 Sq. Ft. -See Calc. Sheet
Furnace Volume Cu. Ft.

Guardslip Bands
Gages No. 67-6702-6

S90881

Sheet 1 of 1

D&E 00843

FINAL DESIGN AND CALCULATION BASIS - (Continued)

5. Performance:

Peak Load, M lbs/hr				
Steam, M lbs/hr	52,500	100,000	125,000	
Press. in boiler drum, psig	430	438	445	
Press. at SH outlet, psig	425	425	425	
Temp. steam at SH outlet, °F.	585	595	600	
Temp. feed entering unit, °F.	240	240	240	
Temp. feed leaving econ., °F.	312	322	328	
Temp. air entering unit, °F.	80	80	80	
Temp. air leaving air heater, °F.	-	-	-	
Temp. gas leaving furnace, °F.	1980	2180	2290	
Temp. gas to superheater, °F.	1980	2180	2290	
Temp. gas to main bank, °F.	1343	1517	1627	
Temp. gas leaving boiler, °F.	530	592	631	
Temp. gas leaving econ., °F.	291	320	343	
Temp. gas leaving air heater, °F.				
CO-2 in furnace, %				
CO-2 at boiler exit, %				
CO-2 at econ. exit, %				
CO-2 at air heater exit, %				
Excess air - furnace, %	10.0	10.0	10.0	
Excess air - boiler exit, %	10.0	10.0	10.0	
Gas, Boiler exit, M lbs/hr	68,500	109,600	138,200	
Gas, econ. exit, M lbs/hr	68,500	109,600	138,200	
Gas, air heater exit, M lbs/hr				
Air entering unit, M lbs/hr	65,000	104,000	131,000	
Air entering air htr., M lbs/hr				
Draft in furnace, "WG				
Draft loss thru S. H., "WG	2.0	5.12	8.00	
Draft loss thru boiler, "WG				
Draft loss thru econ, "WG	1.01	2.56	3.74	
Draft loss thru air heater, "WG				
Draft loss thru collector, "WG				
Draft loss thru ducts, "WG	.12	.32	.50	
Draft loss, total, "WG				
Air press. loss thru air htr., "WG				
Air press. loss thru ducts, "WG	.09	.22	.35	
Air press. loss in windbox, "WG	.12	.32	.50	
Air press. loss thru stoker, "WG				
Air press. loss thru burner, "WG	.81	2.08	3.25	
Air press. loss, total, "WG	4.15	10.62	16.34	

Graduate Engineer
 G. A. R. O. F. O. C. O.

S90881

Sheet 2 of 3

D&E 00844

FINAL DESIGN AND CALCULATION BASIS - (Continued)

5. Performance - continued

Water press. Loss thru Economizer, Psi	<u>2.5</u>	<u>6.4</u>	<u>10.0</u>	
Fuel Burned, lbs/hr			<u>7210</u>	
Heat Release, BTU/Hr Cu. Ft.	<u>49,300</u>	<u>79,880</u>	<u>100,500</u>	
" " " " / FT ²	<u>94,400</u>	<u>153,000</u>	<u>192,000</u>	
Heat Losses:				
Dry Gas, %	<u>3.70</u>	<u>4.20</u>	<u>4.59</u>	
Hydrogen & Moist. in fuel, %	<u>10.81</u>	<u>10.91</u>	<u>11.00</u>	
Moist. in Air, %	<u>.10</u>	<u>.11</u>	<u>.12</u>	
Unburned Combustible %	<u>-</u>	<u>-</u>	<u>-</u>	
Radiation, %	<u>.90</u>	<u>.60</u>	<u>.48</u>	
Unaccounted for %	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	
Total Losses, %	<u>16.51</u>	<u>16.82</u>	<u>17.19</u>	
Efficiency %	<u>83.49</u>	<u>83.18</u>	<u>82.81</u>	

6. Fan Data - Sized at 125,000 Lbs. Steam/Hr.

I.D. Fan Test Block -

 Lbs. Gas/Hr At °F At "SP. At Elevation

Tolerances Include % to Capac.
 % to S.P.
 °F. to Temp.

F.D. Fan Test Block -

151,200 Lbs. Air/Hr At 105 °F At 21.60 "SP. At 5.4 Elevation

Tolerances Include 15 % to Capac.
32 % to S.P.
25 °F. to Temp.

RECEIVED
AT ERIE

MAY 11 1967

8,9,10,11,12,1,2,3,4,5

**THE TENNANT COMPANY
ENGINEERS**

500 JEFFERSON BUILDING
HOUSTON, TEXAS 77002

SUITE 1214
CA 7-5201

May 9, 1967

Southwestern Oil & Refining Company
P. O. Drawer 809
Corpus Christi, Texas 78403

Attention Mr. F. E. Kemp
Purchasing Agent

Boilers

Gentlemen:

We acknowledge and thank you for your inquiry dated May 8, 1967 which we have discussed by telephone with our principal, Riley-Union.

We will have our proposal on the duplicate unit ready within a few days and will be in touch with you on the timing of the larger unit.

Yours very truly,

THE TENNANT COMPANY

A. D. Payne

/o

cc: Erie
cc: Worcester

Guadalupe Banda
Cable No. 07-070000

D&E 00846

RILEY Stoker Corporation

WORCESTER 6, MASSACHUSETTS



STEAM GENERATING
AND FUEL BURNING
EQUIPMENT

CONTRACT NUMBER S-90881
Southwestern Oil & Refining Company
Corpus Christi, Texas

DATE: March 21, 1968

Prices are firm 30 days from above date.

Terms: Net cash 30 days.

F. O. B. Point of Manufacture.

PURCHASE ORDER 1317, 1169
PEC WBC

RECOMMENDED SPARE PARTS LIST

QUANTITY	DESCRIPTION	UNIT PRICE	PRICE
<u>PEABODY BURNER SPARES</u>			
1	Transformer		52.00
3	Insulator with 2 retaining rings	2.69	8.09
1	Flex. hose(steel) 30 x 3/4		67.45
1	Harness assembly		25.00
2	Ignition rod & insulator	11.09	22.18
1	Spark plug & gasket		11.09
2	Primary gas spud	3.14	6.88
1	Tip end assembly		115.00
2	Diffuser	90.00	180.00
2	Peephole glass with 2 gasket -	6.72	13.44
1	Fireye scanner with tube		195.00
<u>SG860 WATER GAGE VALVE</u>			
1	Packing yoke		6.22
2	Valve seats reversible	5.04	10.08
4	Sets nipple-packing rings	2.52	10.08
4	Sets stem packing rings	3.37	13.48
4	Gaskets	.67	2.68
2	Hex head cap screws	.25	.50
2	Stem packing washers	3.19	6.38
2	Hex head cap screws	.42	.84
1	Stem		16.00
2	Gaskets	.67	1.34
<u>FG909 MICA PROTECTED FLAT GLASS INSERT</u>			
1	Complete M. P. flat glass insert w/nipples		301.00
2	Flat glasses with two gaskets	40.00	80.00
2	Mica units	41.00	82.00
2	Gaskets (sets)	1.51	3.02
2	Studs	1.85	3.70
4	Hex nuts	.50	2.00

Quadrant Ranch
Culver, Indiana 47526

D&E 00847

RILEY *Stoker Corporation*
 WORCESTER 6, MASSACHUSETTS



STEAM GENERATING
 AND FUEL BURNING
 EQUIPMENT

CONTRACT NUMBER S-90881
 Southwestern Oil & Refining Company
 Corpus Christi, Texas

DATE: March 21, 1968

PURCHASE ORDER 1168, 1205, 1125
 D MI WESCO

Prices are firm 30 days from above date.
 Terms: Net cash 30 days.
 F. O. B. Point of Manufacture.

RECOMMENDED SPARE PARTS LIST

QUANTITY	DESCRIPTION	UNIT PRICE	PRICE
	<u>12" ASH. 1377A STEAM GAGE</u>		
1	Spare gage complete		103.00
	<u>8 1/2" ASH. 1377A STEAM GAGE</u>		
1	Spare gage complete		56.00
	<u>W-601-HF-EPX-TDM MAGNETROL</u>		
2	Mercury switch SPDT right side	16.80	33.60
	<u>F. D. FAN SPARES</u>		
2	Type S. A. O. L. Fafnir ball bearings (complete pillow block)	309.00	618.00

Guadalupe Banda
 Cause No. 07-8783-C

D&E 00848

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QUOTATION

PEABODY ENGINEERING CORPORATION
39 MAPLE TREE AVENUE
GLENBROOK STATION
STAMFORD, CONNECTICUT

MAR 18 1968

AM 7,8,9,10,11,12,1,2,3,4,5,6 PM

TO Union Iron Works
Erie,
Pennsylvania 16512

Date March 15, 1968

Quotation No. Job 4349-AM

Your Ref. S-90881-1317

Attention: Mr. F. A. Zigler
Sales Department

Letter
Dated November 30, 1967

In reply to your inquiry, we are pleased to quote you on the following material subject to terms and conditions listed below.

ITEM NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE
1.	1	E-38613 Transformer	\$91.00 52.00
2.	3	E-45633 Insulator with 2 Each J. 09 E-18896 Retaining Ring	1.60 8.07
3.	1	D-47647 Flex. Steel Hose 30 X 3/4	40.15 67.45
4.	1	E-46996 Harness Assy.	14.85 25.00
5.	2	E-38647 Ignition Rod & Insulator 1.07	6.60 22.18
6.	1	E-51708 Spark Plug & Gasket 11.09	6.60 11.09
7.	2	E-38634 Primary Gas Spud 3.44	2.05 6.88
8.	1	E-51356 Tip End Assy.	68.00 115.00
9.	2	B-9905 Diffuser 90.00	53.50 118.00
10.	2	E-13930 Peephole Glass With 2 Each 6.72 E-13706 Gasket	4.00 13.44
11.	1	Fireye Scanner 45UV1-1003 With Tube	122.00 125.00

ESTIMATED SHIPPING SCHEDULE: 3-4 Weeks PLEASE REFER TO PEABODY JOB #4349-AM AFTER ACCEPTANCE OF ORDER

FOB: Stamford, Connecticut

TERMS: Net cash 30 days from date of invoice, payable in U.S. funds

All prices are subject to change to those in effect at time of shipment and do not include any federal or state taxes applying at time of sale.

We shall not be liable for default or delay in delivery caused by any contingency beyond our control.

PEABODY ENGINEERING CORPORATION

R. B. Forster

R. B. Forster
PARTS DEPARTMENT

D&E 00849



WALDRIP, BLANKENBURG & Company, INC.

TELEPHONE
(216) 526-1100

INSTRUMENTATION

• PROCESS EQUIPMENT

• FOR RESEARCH

• INDUSTRY

7650 CHIPPEWA ROAD
BRECKSVILLE, OHIO 44141

January 9, 1968

Union Iron Works
Erie, Penna. 16512

Attention: Mr. Frank A. Zigler
Sales Department

Subject: THE CLARK RELIANCE CORPORATION
U.I.W. CONTRACT NO. S-90881
U.I.W. ORDER NO. 1169
SPARE PARTS RECOMMENDATION

RECEIVED
AT ERIE

JAN 10 1968

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▲

Gentlemen:

In response to your request, we are pleased to submit two (2) copies of our Spare Parts Recommendation for the material covered by the subject order.

The prices shown on the attached sheets are list prices, subject to a trade discount of 15% and an O.E.M. Discount of 16 and 10% to Union Iron Works. The one exception to this would be the complete PG909 Mica Protected Flat Glass Insert, on which your discount is 16 and 15%.

We trust these lists will be sufficient and ask that you contact us whenever we can be of service.

Very truly yours,

THE CLARK RELIANCE CORPORATION
WALDRIP, BLANKENBURG & COMPANY
(Product Representative)

M. A. Blankenburg
M. A. Blankenburg

MAB:bk
Attached-

Guaranteed Bond
Cover No. 07-5700-C

MANUFACTURER'S REPRESENTATIVES • • • • SINCE 1937

D&E 00850

L. H. WALDRIP COMPANY

CLARK RELIANCE SPARE PARTS RECOMMENDATION
UNION IRON WORKS CONTRACT NO. S-90881
UNION IRON WORKS ORDER NO. 1169

FOR EACH SET OF RELIANCE SG-860 FORGED STEEL WATER GAGE VALVES

1 - SG754-2 Packing Yoke.....	6.22	\$3.70 each	
2 - SG454-3 Valve Seats - reversible.....	5.04	3.00 each	0.08
4 - sets SG454-23 Nipple Packing Rings.....	2.52	1.50/set	10.08
4 - sets SG454-23A Stem Packing Rings.....	3.37	2.00/set	13.48
4 - E10-10 Seat Gaskets.....	.67	.40 each	2.68
2 - BG403R-13 Hex Head Cap Screws.....	.25	.15 each	1.30
2 - SG754-3 Stem Packing Washers.....	3.18	1.90 each	6.38
2 - SG754-5 Hex Head Cap Screws.....	.77	.25 each	1.94
1 - SG854-1 Stem.....		9.50 each	16.00
2 - SG460-3 Flange Gaskets.....	6.7	.40 each	1.34

FOR EACH RELIANCE #FG909 MICA PROTECTED FLAT GLASS INSERT

1 - Complete FG909 M.P. Flat Glass Insert with nipples 3-1/8" X 2-5/8" X 19-3/4" overall		\$179.25 each	30.00
2 - FG6219-1 Flat Glasses with two (2) FG6219-2 Gaskets.....	10.00	23.50 each	80.00
2 - FG90-3 Mica Units.....	11.00	24.25 each	82.00
2 - sets FG6219-2 Gaskets.....	1.51	2.90/set of 2	
2 - FG900-1 Studs.....	1.85	1.10 each	3.70
4 - M40-7 Hex Nuts.....	.50	.30 each	7.00

NO SPARES REQUIRED FOR OTHER ITEMS ON ORDER.

Continuation of Order
Order No. 87-0722-C

D&E 00851

R-E-C-O-M-M-E-N-D-E-D S-P-A-R-E P-A-R-T-S

IMPORTANT: When ordering parts, furnish the serial number of the Magnetrol.

CUSTOMER

Union Iron Works

CUST. P.O. NO. S-90881-1205

PRODUCTION NO. 156452

MAGNETROL MODEL(S)

W-601-HF-EPX-TIM

<u>QUANTITY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE EACH</u> <u>F.O.B. FACTORY</u> <u>CHICAGO, ILLINOIS</u>
		MERCURY SWITCH	
		SPST - Closes on falling level	
		Right side	
		Left side	
		MERCURY SWITCH	
		SPST - Closes on rising level	
		Right side	
		Left side	
		MERCURY SWITCH	
		Single Pole, Double Throw	
2-----	RP--1015-3-----	Right side	16.80
		Left side:	

FLOAT Chicago, Ill.
 Chicago, Ill. 07-57320

MAGNETROL® INC. 5300 BELMONT ROAD — DOWNERS GROVE, ILLINOIS

D&E 00852



Westinghouse Electric Corporation

STURTEVANT DIVISION

MAIN OFFICE & WORKS
HYDE PARK
BOSTON 36, MASS.

FREIGHT ADDRESS
READVILLE, MASS.

Union Iron Works
Sales Department
Erie, Pennsylvania 16512

SALES OFFICE 1945 W. Market Street
Akron, Ohio 44313
DATE December 11, 1967

Attn: Mr. Frank A. Zigler

QUOTATION NO. AKY-4757-SP PAGE 1 of 1
TERMS OF PAYMENT: 30 DAYS NET - FROM DATE OF INVOICE

SUBJECT: YOUR Order S-90881
Riley Order #1125
Our AKY-4757-H

TERMS OF SHIPMENT:

INSTALLATION

ENGINEER

(See reverse side for complete terms) Westinghouse reserves the right to ship in the most economical manner. Any excess charges incurred by routing per purchaser's instructions shall be paid by purchaser. Resale items are sold in accordance with the Vendor's terms.

Gentlemen:

We propose to furnish the apparatus specified below at prices stated and in accordance with the terms and conditions shown on both sides of this quotation.

QUANTITY	DESCRIPTION	AMOUNT
	In accordance with your letter dated November 30, 1967, our recommended spare parts for the Size 4040 Heavy Duty Airfoil Forced Draft Fan furnished on the above subject order are as follows:	
Two (2)	Size 2-15/16" Dia., Type S.A.O.L., Fafnir Ball Bearings (complete pillow block)	309.00
	Estimated Delivery - 12 Weeks.	
		618.00
		184.00
		368.00

RECEIVED
AT ERIE

DEC 14 1967

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Prices do not include Federal, State or Local taxes based on or measured by sale or use, which tax or taxes will be applied to the prices where applicable.

Unless otherwise stated the apparatus that we propose to furnish is in accordance with the requirements described in the plan and specifications. We thank you for your inquiry and trust that this proposal will receive your favorable consideration.

Accepted _____
(DATE)

Respectfully Submitted

Westinghouse Electric Corporation
STURTEVANT DIVISION

By _____

By J. A. Houck

See reverse side for price policy, terms and conditions

D&E 00853

RILEY Stoker Corporation

WORCESTER, MASSACHUSETTS 01601



STEAM GENERATING
AND FUEL BURNING
EQUIPMENT

*Southwestern Oil & Refining Company
Post & Sumner Street
P. O. Drawer 804
Corpus Christi, Texas 78403
att: Mr. F. E. Kemp
Purchasing Agent*

Address Reply To:
P.O. Box 896
Erie, Pa.

*new Contract 5-40881
P.O. NO. 57391
RSC CONTRACT 118347-67079*

Gentlemen:

We are enclosing 6 copies of the Recommended Spare Parts List and prices for your Riley Stoker Corporation equipment.

All prices are f.o.b. point of shipment as indicated, and are for acceptance within 15 days. Terms of payment are net 30 days after shipment.

It is estimated that shipment of these spare parts could be made in 30 to 60 days after receipt of an order. *THE MINIMUM ORDER CHARGE IS \$10.00 NET.*

No sales or use taxes are included, and if any are applicable, they would be in addition to the quoted prices. Prices quoted are those currently in effect, and if at the time of shipment there is a change in price to us from any of our suppliers, then, an equitable adjustment in the quoted prices would be made to reflect these changes.

We would be pleased to receive your order for these various items, and assure you it would be processed promptly.

Yours very truly,

RILEY STOKER CORPORATION

F. A. Zigler
Sales Department
Union Iron Works

FAZ:tc

cc: WORCESTER - F. B. HALL, PARTS DEPT.

*Guadalupe Bando
Cables No. 07-57079*

ALL QUOTATIONS, AGREEMENTS AND COMMITMENTS ARE SUBJECT TO THE APPROVAL OF AN EXECUTIVE OFFICER OF THE COMPANY AT WORCESTER, MASSACHUSETTS

D&E 00854

RILEY *Stoker Corporation*

WORCESTER 6, MASSACHUSETTS



STEAM GENERATING
AND FUEL BURNING
EQUIPMENT

CONTRACT NUMBER S-90881
Southwestern Oil & Refining Company
Corpus Christi, Texas

DATE: March 21, 1968

Prices are firm 30 days from above date.

Terms: Net cash 30 days.

F. O. B. Point of Manufacture.

PURCHASE ORDER 1168, 1205, 1125
D MI WESCO

RECOMMENDED SPARE PARTS LIST

QUANTITY	DESCRIPTION	UNIT PRICE	PRICE
	<u>12" ASH. 1377A STEAM GAGE</u>		
1	Spare gage complete		103.00
	<u>8 1/2" ASH. 1377A STEAM GAGE</u>		
1	Spare gage complete		56.00
	<u>W-601-HF-EPX-TDM MAGNETROL</u>		
2	Mercury switch SPDT right side	16.80	33.60
	<u>F. D. FAN SPARES</u>		
2	Type S. A. O. L. Fafnir ball bearings (complete pillow block)	309.00	618.00

Guadalupe Barch
Quota No. 97-8782-C

D&E 00855

RILEY *Stoker Corporation*

WORCESTER 6 MASSACHUSETTS



STEAM GENERATING
AND FUEL BURNING
EQUIPMENT

CONTRACT NUMBER S-90881
Southwestern Oil & Refining Company
Corpus Christi, Texas

DATE: March 21, 1968

PURCHASE ORDER 1317, 1169
PEC WBC

Prices are firm 30 days from above date.

Terms: Net cash 30 days.

F. O. B. Point of Manufacture.

RECOMMENDED SPARE PARTS LIST

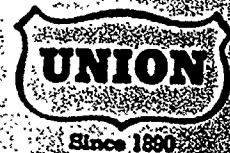
QUANTITY	DESCRIPTION	UNIT PRICE	PRICE
	<u>PEABODY BURNER SPARFS</u>		
1	Transformer		52.00
3	Insulator with 2 retaining rings	2.69	8.09
1	Flex. hose (steel) 30 x 3/4		67.45
1	Harness assembly		25.00
2	Ignition rod & insulator	11.09	22.18
1	Spark plug & gasket		11.09
2	Primary gas spud	3.14	6.88
1	Tip end assembly		115.00
2	Diffuser	90.00	180.00
2	Peephole glass with 2 gasket	6.72	13.44
1	Fireye scanner with tube		195.00
	<u>SG860 WATER GAGE VALVE</u>		
1	Packing yoke		6.22
2	Valve seats reversible	5.04	10.08
4	Sets nipple packing rings	2.52	10.08
4	Sets stem packing rings	3.37	13.48
4	Gaskets	.67	2.68
2	Hex head cap screws	.25	.50
2	Stem packing washers	3.19	6.38
2	Hex head cap screws	.42	.84
1	Stem		16.00
2	Gaskets	.67	1.34
	<u>FG909 MICA PROTECTED FLAT GLASS INSERT</u>		
1	Complete M. P. flat glass insert w/nipples		301.00
2	Flat glasses with two gaskets	40.00	80.00
2	Mica units	41.00	82.00
2	Gaskets (sets)	1.51	3.02
2	Studs	1.85	3.70
4	Hex nuts	.50	2.00

Quadruplex Form
Quadruplex No. 37-5702-C

D&E 00856

Union Iron Works
Order No. 27-0703-G

UNION IRON WORKS
SUBSIDIARY OF RILEY STOKER CORPORATION
ERIE, PA.



PURCHASER:

RILEY STOKER CORPORATION
WORCESTER, MASSACHUSETTS

FOR:

SOUTHWESTERN OIL & REFINING COMPANY
CORPUS CHRISTI, TEXAS

ITEM

One (1) "M" Boiler

CAPACITY

125,000 Lbs. Steam/Hr.

DESIGN PRESSURE

475 PSIG

TOTAL HEATING SURFACE

9198 Sq. Ft.

U.I.W. CONTRACT NO.

S-90881

YEAR BUILT

1967

PURCHASER'S NO.

57891; Riley 114347-67079

SERIAL NO.

28558

NATIONAL BOARD NO.

4154

D&E 00857

RECEIVED
AT ERIE

Tel. Davis 4-6771

QUOTATION

MAR 18 1968
AM 7, 8, 9, 10, 11, 12, 1, 2, 3, 4, 5, 6 PM

PEABODY ENGINEERING CORPORATION
39 MAPLE TREE AVENUE
GLENBROOK STATION
STAMFORD, CONNECTICUT

Guadalupe Banda
Cauce No. 97-8700-C

TO Union Iron Works
Erie,
Pennsylvania 16512

Date March 15, 1968

Quotation No. Job 4349-AM

Your Ref. S-90881-1317

Attention: Mr. F. A. Zigler
Sales Department

Letter
Dated November 30, 1967

In reply to your inquiry, we are pleased to quote you on the following material subject to terms and conditions listed below.

ITEM NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE
1.	1	E-38613 Transformer	\$31.00
2.	3	E-45633 Insulator with 2 Each E-18896 Retaining Ring	1.60
3.	1	D-47647 Flex. Steel Hose 30 X 3/4	40.15
4.	1	E-46996 Harness Assy.	14.85
5.	2	E-38647 Ignition Rod & Insulator	6.60
6.	1	E-51708 Spark Plug & Gasket	6.60
7.	2	E-38634 Primary Gas Spud	2.05
8.	1	E-51356 Tip End Assy.	68.00
9.	2	B-9905 Diffuser	53.50
10.	2	E-13930 Peephole Glass With 2 Each E-13706 Gasket	4.00
11.	1	Fireye Scanner 45UV1-1003 With Tube	122.00

ESTIMATED

SHIPPING SCHEDULE:

PLEASE REFER TO PEABODY JOB #4349-AM

3-4 Weeks

AFTER ACCEPTANCE OF ORDER

FOB:

Stamford, Connecticut

TERMS:

Net cash 30 days from date of
invoice, payable in U.S. funds

All prices are subject to change to those in effect at time of shipment and do not include any federal or state taxes applying at time of sale.

We shall not be liable for default or delay in delivery caused by any contingency beyond our control.

PEABODY ENGINEERING CORPORATION

R. B. Forster
PARTS DEPARTMENT

D&E 00858

L. H. WALDRIP COMPANY

CLARA RELIANCE SPARE PARTS RECOMMENDATION
UNION IRON WORKS CONTRACT NO. S-90881
UNION IRON WORKS ORDER NO. 1169

FOR EACH SET OF RELIANCE SG-860 FORGED STEEL WATER GATE VALVES

1 - SG754-2 Packing Yoke.....	\$3.70 each
2 - SG454-3 Valve Seats - reversible.....	3.00 each
4 - sets SG454-23 Nipple Packing Rings.....	1.50/set
4 - sets SG454-23A Stem Packing Rings.....	2.00/set
4 - E10-10 Seat Gaskets.....	.40 each
2 - BG403R-13 Hex Head Cap Screws.....	.15 each
2 - SG754-3 Stem Packing Washers.....	1.90 each
2 - SG754-5 Hex Head Cap Screws.....	.25 each
1 - SG854-1 Stem.....	9.50 each
2 - SG460-3 Flange Gaskets.....	.40 each

FOR EACH RELIANCE #FG909 MICA PROTECTED FLAT GLASS INSERT

1 - Complete FG909 M.P. Flat Glass Insert with nipples 3-1/8" X 2-5/8" X 19-3/4" overall	\$179.25 each
2 - FG6219-1 Flat Glasses with two (2) FG6219-2 Gaskets.....	\$ 23.50 each
2 - FG90-3 Mica Units.....	\$ 24.25 each
2 - sets FG6219-2 Gaskets.....	.90/set of 2
2 - FG900-1 Studs.....	1.10 each
4 - M40-7 Hex Nuts.....	.30 each

NO SPARE REQUIRED FOR OTHER ITEMS ON ORDER.

RECEIVED
AT ERIE

JAN 10 1968

8 1/2 x 11 1/2 x 1/8

A

Guadalupe Banda
Cable No. CT-5700-C

D&E 00859



Westinghouse Electric Corporation

STURTEVANT DIVISION

MAIN OFFICE & WORKS
HYDE PARK
BOSTON 36, MASS.

FREIGHT ADDRESS
READVILLE, MASS.

Union Iron Works
Sales Department
Erie, Pennsylvania 16512

SALES OFFICE 1945 W. Market Street
Akron, Ohio 44313
DATE December 11, 1967

Attn: Mr. Frank A. Zigler

QUOTATION NO. **AKY-4757-SP** PAGE 1 of 1
TERMS OF PAYMENT: 30 DAYS NET - FROM DATE OF INVOICE

SUBJECT: YOUR Order S-90881
Riley Order #1125
Our AKY-4757-H

TERMS OF SHIPMENT:

INSTALLATION

ENGINEER

(See reverse side for complete terms) Westinghouse reserves the right to ship in the most economical manner. Any excess charges incurred by routing per purchaser's instructions shall be paid by purchaser. Resale items are sold in accordance with the Vendor's terms.

Gentlemen:

We propose to furnish the apparatus specified below at prices stated and in accordance with the terms and conditions shown on both sides of this quotation.

QUANTITY	DESCRIPTION	AMOUNT
	In accordance with your letter dated November 30, 1967, our recommended spare parts for the Size 4040 Heavy Duty Airfoil Forced Draft Fan furnished on the above subject order are as follows:	
Two (2)	Size 2-15/16" Dia., Type S.A.O.L., Fafnir Ball Bearings (complete pillow block)	\$ 184.00 x 2 \$ 368.00
	Estimated Delivery - 12 Weeks.	

RECEIVED
AT ERIE

DEC 11 1967

8,9,10,11,12,1,2,3,4,5



Prices do not include Federal, State or Local taxes based on or measured by sale or use, which tax or taxes will be applied to the prices where applicable.

Unless otherwise stated the apparatus that we propose to furnish is in accordance with the requirements described in the plans and specifications. We thank you for your inquiry and trust that this proposal will receive your favorable consideration.

Accepted _____
(DATE)

Respectfully Submitted D&E 00860

Westinghouse Electric Corporation
STURTEVANT DIVISION

By _____

By _____

J. A. Houck

See reverse side for price policy, terms and conditions

Quotation Dated
Call No. 07-870000



Westinghouse Electric Corporation

STURTEVANT DIVISION

MAIN OFFICE & WORKS
HYDE PARK
BOSTON 36, MASS.

FREIGHT ADDRESS
READVILLE, MASS.

Union Iron Works
Sales Department
Erie, Pennsylvania 16512

SALES OFFICE 1945 W. Market Street
Akron, Ohio 44313
DATE December 11, 1967

Attn: Mr. Frank A. Zigler

QUOTATION NO. **AKY-4757-8P** PAGE 1 of 1
TERMS OF PAYMENT: 30 DAYS NET - FROM DATE OF INVOICE

SUBJECT: YOUR Order S-90881
Riley Order #1125
Our AKY-4757-H

INSTALLATION

ENGINEER

TERMS OF SHIPMENT:

(See reverse side for complete terms) Westinghouse reserves the right to ship in the most economical manner. Any excess charges incurred by routing per purchaser's instructions shall be paid by purchaser. Resale items are sold in accordance with the Vendor's terms.

Gentlemen:

We propose to furnish the apparatus specified below at prices stated and in accordance with the terms and conditions shown on both sides of this quotation.

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	Estimated Delivery - 12 Weeks.	

RECEIVED
AT ERIE

DEC 14 1967

8,9,10,11,12,13,14,5

Prices do not include Federal, State or Local taxes based on or measured by sale or use, which tax or taxes will be applied to the prices where applicable.

Unless otherwise stated the apparatus that we propose to furnish is in accordance with the requirements described in the plans and specifications. We thank you for your inquiry and trust that this proposal will receive your favorable consideration.

Respectfully Submitted

Accepted _____
(DATE) _____
Sales No. 07-4757-8P

Westinghouse Electric Corporation
STURTEVANT DIVISION

By _____

By _____

J. A. Houch

See reverse side for price policy, terms and conditions

D&E 00861

UNION IRON WORKS

SUBSIDIARY OF RILEY STOKER CORPORATION

ERIE, PENNSYLVANIA 16512



STEAM GENERATING AND
PROCESS HEATING EQUIPMENT

PROPOSAL-CONTRACT

To: Southwestern Oil & Refining Company
P. O. Drawer 809
Corpus Christi, Texas
Attn: Mr. F. L. Kemp, P. A.

No. TA-52967

Date May 29, 1967

For: Corpus Christi Plant
Package Boilers

The UNION IRON WORKS (hereinafter called the *Company*) proposes to furnish to the *Purchaser*, in accordance with the following specifications and general conditions, the machinery, material and/or equipment (hereinafter referred to as "equipment") and/or services hereinafter described.

- One (1) - UNION 125,000 PPH Type "PM" Steam Generating Unit.
- One (1) - UNION Centrifugal Type Steam Purifiers
- One (1) - UNION Drainable Superheater
- One (1) - Sturtevant Forced Draft Fan
- One (1) - UNION Steel Finned Tube Economizer
- One (1) - Set of Connecting Gas and Air Ducts
- One (1) - Set of Peabody Natural Gas Burners and Accessories
- One (1) - Set Ladders and Platforms for Front Drum Access, Rear Drum Access and Economizer Access
- One (1) - Set Split Dumpers for Superheat Control
- One (1) - Set of Drums and Covers and Safety Valve Covers.

Services of Erection Superintendent on Per Man Basis.

Services of Engineer to Advise and Consult During the Start-up on a Per Man Basis.

A blank space not filled in means not furnished by the Company.

PC-101

890881

Guadalupe Pando
Corpus Christi, Texas

D&E 00862

SPECIFICATIONS

"UNION" BENT TUBE BOILER

Type "MH"

(1) CAPACITY - PRESSURE - DIMENSIONS - WEIGHT		
Rated Capacity per Boiler-----	125,000	Lbs. Steam/Hr.
Maximum Allowable Working Pressure		
At Boiler Nozzle-----	475	psig
Summary of Heating Surface:		
Main Bank-----	8350	Sq. Ft.
Water Cooling - Side Wall -----	630	
Water Cooling - Rear Wall-----	37	Sq. Ft.
Water Cooling - Floor -----	161	
Total Heating Surface-----	9198	Sq. Ft.
Boiler Dimensions:		
Furnace Width Between Tubes-----	6'-11-1/8"	
Furnace Length-----	27'-3-1/8"	
Vertical Drum Centers-----	12'-6"	
Furnace Volume, Approximately-----	1642 Cu. Ft.	
Wall Thickness: Side-----	2"	
Front-----	4" and 13"	
Rear-----	9"	
Floor-----	5" Plus Floor Tubes	
Roof-----	2"	
Overall Casing Width-----	12'-8"	
Overall Casing Length-----	29'-1-1/8" Inside	
Height Bottom Support to Face of Boiler Outlet Flange-----	15'-7-3/16"	
Proposal Drawing No.-----	WTS-1910 & 1910A	
Estimated Shipping Weight, Lbs.-----	150,025 Heaviest Lift	
Total Weight - Approximately-----	168,700 Pounds	

(2) BOILER CONSTRUCTION CODES

Each boiler and all accessories to be furnished under these specifications shall fully comply with all requirements for materials, workmanship and construction prescribed by the latest edition of the Boile Code of The American Society of Mechanical Engineers and applicable State, Province or area regulations.

(3) DRUMS

	Upper	Lower
No. per Boiler-----	1	2
Nominal Diameter-----	42" I.D.	18" O.D.
Overall Length -----	30'-9-1/8"	30'-4-3/8"
Shell Thickness-----	1-5/16"	3/4"
No. Manholes 12" x 16" Elliptical -----	2	0
No. Handholes 3-1/2" x 4-1/2" Elliptical--	0	As Required
Material Spec.-----	SA-515, Grade 70 or Equivalent	SA-106-B

Top drum heads shall be flanged and dished type, and each shall have a flanged manhole opening, fitted with a forged steel hinged cover plate with double steel yokes, bolts and gasket. Flanges of manhole openings and cover plates shall be machined to give plane parallel bearing surfaces for the manhole gaskets. The lower drums shall have flat heads with a handhole in each head. All drum seams shall be fusion welded.

All plates, heads and lower drum tubing shall be of first quality open hearth steel conforming to A. S. M. E. material specifications. The Company reserves the right to furnish material that is the equivalent of that specified above if necessary.

(4) TUBES - Seamless	2" O.D.	
Diameter-----		No. Wide--- 14
Wall Thickness-----	.105	No. Deep--- 79 and 157
Type-----	SA-83	

* Tubes in furnace are tangent.

(5) DRUM OPENINGS

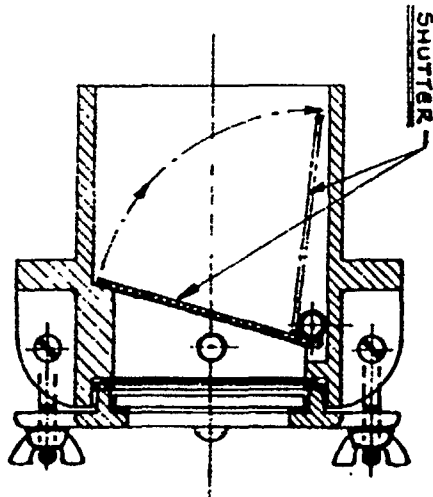
All drum openings shall be in accordance with the ASME Code,
or American Standard pipe thread connections, as noted below:

Description	Location	Number & Size	Type
Steam Outlet-----	Upper Drum--	Superheater Supply as required by	--
Safety Valve -----	Upper Drum--	ASME Code	-- Flanged
Feed Inlet -----	Upper Drum--	1 - 4"	-- Flanged
Blow-off-----	Lower Drum--	2 - 1"	-- Flanged
Water Column -----		2 - 1-1/4"	-- Flanged
SOOT BLOWER -----			--
Feed Water Regulator -----		2 - 1"	-- Flanged
Cont. Blow-Down -----		1 - 1"	-- Flanged
Chemical Feed -----		1 - 1"	-- Flanged
& Steam Sampling		1 - 1-1/2"	-- Flanged
Boiler Vent-----		1 - 1"	-- Flanged
(In Superheater Header Loop)			
Steam Gauge-----		1 - 1"	-- Flanged
Auxiliary Steam-----		1 - 2"	-- Flanged
Acid Cleaning - In Superheater Header-		1 - 1-1/2"	-- Flanged (blacked off)

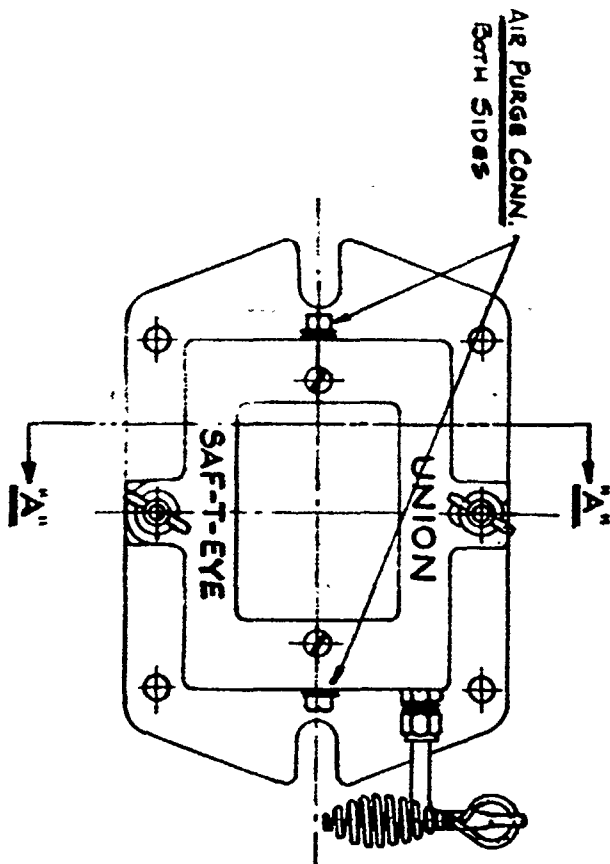
(6) ACCESS DOORS, INSPECTION DOORS AND OBSERVATION PORTS

The Company shall furnish and install the following doors and
ports.

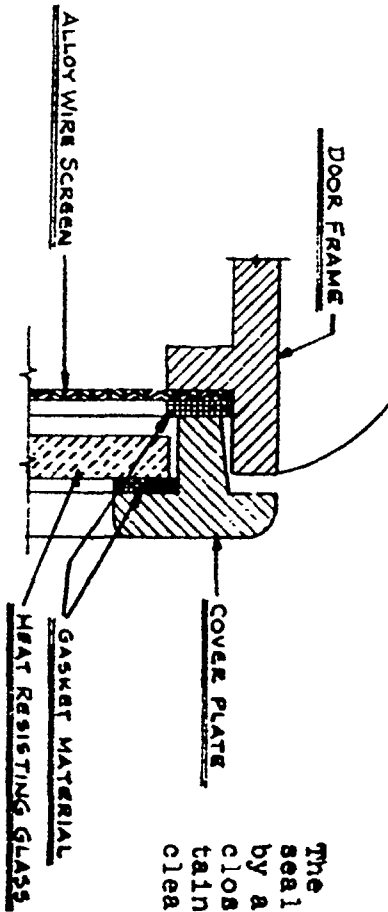
Designation	No.	Size	Description
Air Cooled	Std.	4"-5-1/2"	Observation Ports
Observation	--	--	Day. SK-616-0
Furnace Access	--	--	Through Burner Opening.



SECTION e-A-A



Copyrighted by
Globe No. 67-6700-0



ENLARGED DETAIL @
COVER PLATE

The UNION "SAF-T-EYE" observation port is completely sealed into the furnace wall. The glass is protected by an alloy wire screen. A shutter automatically closes the port when not in use. The glass is contained in a frame which can be readily removed for cleaning by merely loosening two thumb nuts.

UNION IRON WORKS
ERIE, PA.

4"x5 1/2" OBSERVATION PORT

DM 6-1-60 SK-616-0

(7) VALVES AND TRIM

The Company shall furnish with each boiler the following Valves and Trim, or those of equal quality, at the option of the Company

	NO.	SIZE	MAKE, FIG. NO. DESCRIPTION
Safety Valve-----	1	2-1/2"	Cons. #1811LA
Safety Valve-----	1	2"	Cons. #1811K
Feed Valve-----	1	4"	Edward #618
Feed Valve-----	1	4"	Edward #690
Blow-off Valve -----	3	1"	Yarway #5925P
XXXXXXXXXX -----			
Water Column-----	1	1-1/4"	Magnetrol W-601X
Water Gage -----	2	3/4"	Reliance SG-860
Gage Glass -----	2	3/4"	Reliance PG-909
Illuminators	2	(1	Direct Vision Ill. Assembly
XXXXXXXXXX -----		(1	Direct Vision, Hood, Ill.
Water Column Drain -	1	3/4"	Floor Stand & Mirror
			Edward 848Y
Water Gage Drain----	2	3/8"	Edward 848Y
Steam Gage -----	1	12"	Ashcroft #1377A
Boiler Vent Valve----	1	3/4"	Edward 848Y
W.Col.Isolation Valve	2	1-1/4"	Hancock 970W-WC
Cont. Blowdown Valve	1	1"	Hancock 5525P
Chemical Feed Valve	1	1"	Edward 4152
<u>Superheater Trim:</u>			
Steam Sampling	1	3/8"	Edward 848
Drain Valve	1	1-1/2"	Edward 828
Safety Valve	1	1-1/2"	Consd.
Thermometer & Well	1		Trerice BX-13406
Steam Gage	1	8-1/2"	Ashcroft 1377A
<u>Economiser Trim</u>			
Relief Valve	1	1-1/2"	Cons.#1912-308C
Vent Valve	1	3/4"	Edward #848Y
Drain Valve	1	3/4"	Edward #848Y
Thermometer & Well	1	3/4"	Trerice BX-13406

(8) PIPING

The Piping for connecting the following Valves and Trim to the boiler shall be furnished by the **Company** and installed by the **Company**

If the Piping for connecting Valves and Trim to the boiler is furnished by the Company, it shall conform to the requirements of the ASME Code, and consist only of the items listed below:

Piping for	Extent of	
Water Column -----	Water Column ---- to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings
Water Column Drain-----	Water Column ---- to Floor	Sch. 80 Smls. Steel Pipe Steel Fittings
Steam Gage-----	Steam Gage----- to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings
Blow-Off Valve -----	Valves to Boiler	Sch. 80 Smls. Steel Pipe Steel Fittings

When the Company is to furnish, but not install, the connecting Piping, it shall be in random, unthreaded lengths.

(9) BAFFLES

The baffle between the furnace and the convection section shall be formed by a tangent row of tubes.

(10) PAINTING **Boiler and Accessories to be shipped unpainted.
No outside surface preparation included.**
~~XX~~
~~XX~~

(11) TEST

Before shipment, all drums shall be tested and made tight under hydrostatic pressure, 50% greater than the allowable working pressure of the boiler.

(12) SHOP ASSEMBLED SHIPMENT

The Company shall assemble the boiler unit, prior to shipment, including tubes, drums, refractories, baffles, tile, insulation, burner front, windbox, burners and steel casings.

The front wall in the furnace section shall consist of 9" of firebrick and 4" of high temperature block insulation covered by the burner front and windbox.

That portion of the front wall which is not covered by the windbox and is backed up by the boiler tubes shall consist of 2" of tile laid up in high temperature cement, 2" of block insulation and a No. 10 Ga. steel casing.

The rear wall shall consist of 2 layers of 2" shiplap refractory tile, laid up in high temperature cement, 5" of high temperature block insulation and a No. 10 Ga. steel casing.

The furnace floor shall consist of 1½" of plain edge tile above the tubes, 3" of insulating castable refractory, Decrete #30, and a 3/16" reinforced steel supporting plate. This plate will be properly reinforced and fabricated to carry the floor load and to seal the setting against any leakage.

The side and top walls of the boiler shall be constructed of tangent tubes, covered with 2 layers of 1/4" asbestos millboard, 2" of insulation, and a No. 10 Ga. steel casing.

The exposed straight portion of the top drum shall be covered with 2" of blanket insulation and a No. 12 Ga. steel casing.

The casing shall be constructed of reinforced flanged panels with all joints seal welded to form a pressure tight enclosure.

The boiler uptake area including transition to economizer and the economizer proper shall be insulated and finished with a No. 10 Ga. casing. The inside surface of the drum end covers shall be insulated.

External Insulation by Purchaser - Exposed portion of superheater and supply header, economizer headers, trim piping and valves and upper front drum heads. See Alternate IV for insulation of other surfaces.

(13) CENTRIFUGAL TYPE STEAM SEPARATOR

The Company shall furnish and install, in the top steam drum of the boiler, one (1) UNION centrifugal type steam purifier designed to give steam of high quality, to take up a minimum of space, and allow easy access for maintenance. External drains are provided for the purifier including piping per sketch Page 8A.

D&E 00869

UNION DRAINABLE SUPERHEATER

The Company shall furnish and install, in the boiler unit, one (1) UNION seven-tube, bare tube, drainable type superheater.

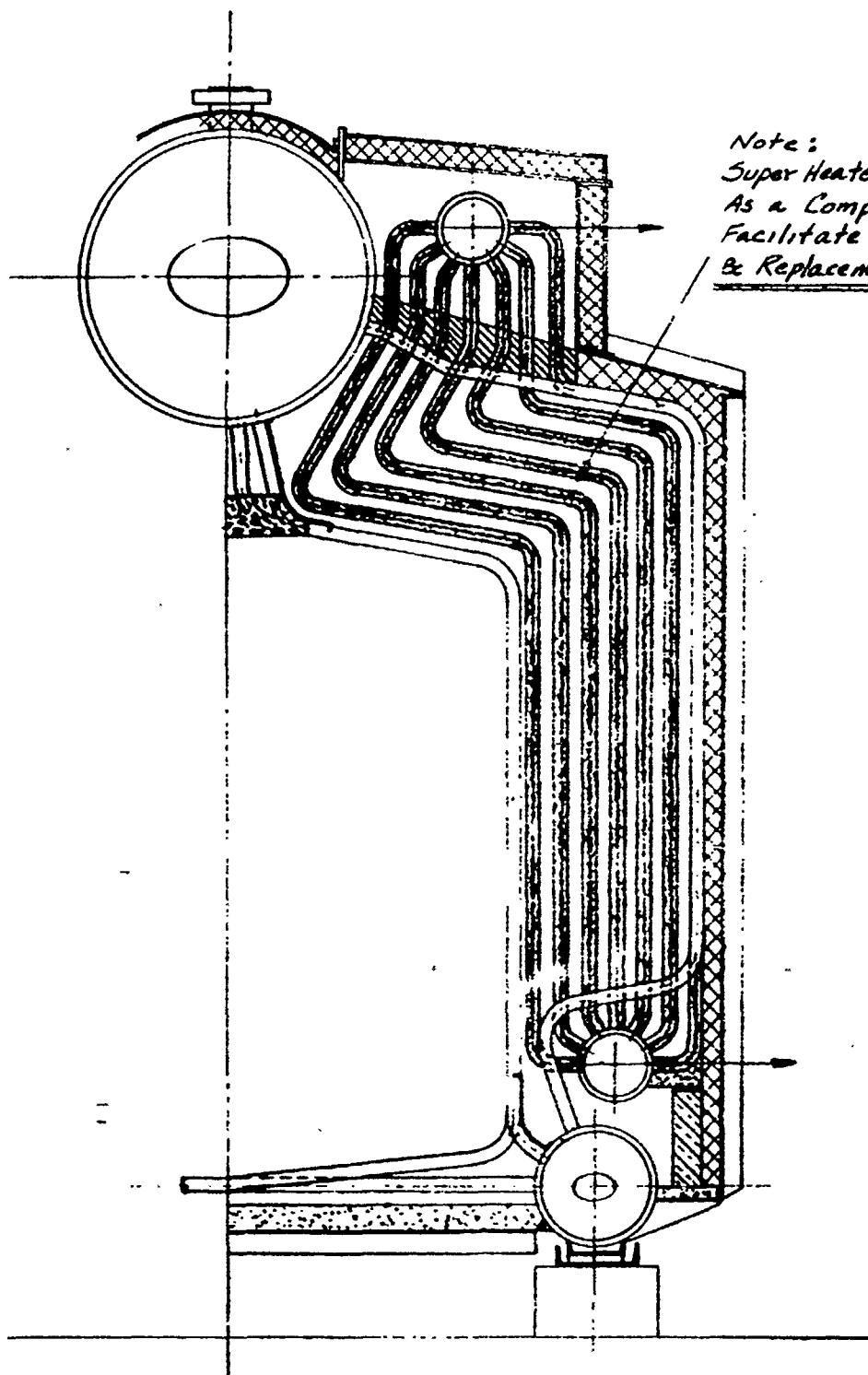
The superheater shall be designed for 475 psig pressure and 600 deg. F. total temperature, plus or minus 10 deg. F. when operating at 425 psig pressure at the superheater outlet and 125,000 pounds of steam per hour maximum continuous rating when being fired with fuel gas as specified and having a feedwater temperature of 240 deg. entering the economizer.

The Company shall include all pressure parts from the drum outlet to the superheater inlet header, necessary supports for the elements and their required spacers, as well as all refractory seal material, outlet header, all completely assembled in each boiler unit.

The Company shall include one (1) inlet header and one (1) outlet header, each 10-3/4" O.D. x 3/4" wall, the outlet header being fitted with an 8" Series, 600 pound raised face flange.

The required sections in the superheater will consist of 2" O.D. by .150" wall thickness seamless specification SA-210.

Approximate heating surface is 735 square feet.



Note:
Super Heater Is Removable
As a Complete Unit To
Facilitate Tube Removal
& Replacement.

TYPICAL SUPER HEATER ON "MH" BOILERS
(DRAINABLE TYPE)

Guadalupe Banda
 Census No. 67-6700-C

UNION IRON WORKS
ERIE, PA.
 DM 11/22 DNG. NO. SK-1162

PAGE 10.

D&E 00871

FORCED DRAFT FAN

The Company shall furnish for the unit, for installation by others, one (1) Sturtevant #4040 air foil, single width, single inlet fan built in Arrangement No. 3 with anti-friction bearings mounted on independent pedestals and sole plates. Fan built for 10% turbine trip out.

The fan will be complete with inlet screens, inlet vane control, clean-out door and shall be arranged for direct connection through a Thomas, or equal, flexible coupling to a drive to be furnished by the Purchaser.

Performance Information on Fan:

Steam Load, PPH	62,500	100,000	125,000	Tes Block
Lbs. Air/Hr.	65,000	104,000	131,600	151,200
Air Temp. (°F.)	80	80	80	105
Static Pressure	4.15	10.62	16.34	21.60
CFM	14,750	23,600	29,800	36,000
Fan RPM (Vane Control)	1,770	1,770	1,770	1,770
BHP (Vane Control)	58.0	80.0	106.0	143.0

UNION STEEL FINNED TUBE SHOP ASSEMBLED ECONOMIZER

The Company shall furnish for the unit, for installation by others, on supporting steel, one (1) extended surface steel finned tube economizer, shop assembled, having 9 tubes wide, 22 rows high, each tube having an effective length of 10'-0". The economizer shall have a 3/16" inner casing.

Approximate dimensions of the economizer will be 3'-8-1/2" inside width, 10'-2" inside length by 9'-4-1/2" height over channels.

Approximate heating surface shall be 7,310 square feet.

Economizer design pressure shall be 725 psig.

All casing seams are to be continuously welded.

Insulation and outer casing included as described on Page 1.

CONNECTING GAS AND AIR DUCTS

The economizer shall be mounted directly above the boiler gas outlet shown on Drawings BTS-1910A, and the duct system shall include the following:

Cold air duct connecting forced draft fan to windbox.

Hot gas duct connecting the boiler to the economizer.

All ducts shall be constructed of 3/16" plate, T-bars reinforcement and all hot ducts shall be provided with insulation anchors designed to retain Purchaser's insulation.

Velocities will be as specified. Access doors and expansion joints, where required, are included.

PEABODY BURNERS AND WINDBOX

The Company shall furnish and install prior to shipment, on each boiler unit the following Peabody Engineering Corporation natural gas fuel burning equipment:

One (1) Peabody Windbox Assembly measuring approximately:

8' 6" high by 5' 6" wide by 3' 0" deep, fabricated of 1/4" plate and suitably reinforced to support the registers mounted therein. The windbox will be designed such that it will provide for air entry from the F. D. fan on the right hand side. The entire windbox assembly will be shop welded to the 3/8" boiler front plate.

Two (2) Peabody MT-23 Forced Draft Registers complete with pressurizing seal ring, gas ring and saddle diffuser pipe and diffuser, flame scanner adapter and bottom register to have swing fit.

Two (2) "FPM" Gas-Electric Ignitors, including Transformers, Electrodes and Flexible Gas Hose.

Two (2) Sets special rifflered (multi-directional) refractory furnace throat tile.

One (1) NEMA 4 Weatherproof Enclosure for mounting to ignition Transformers.

Two (2) Fireye No. 45UVI Flame Scanner mounted on Registers.

Two (2) Gas Ring Steam Out Connections, including piping, and manual shut-off valves.

Carroll & Borden
Carroll No. 07-0703-C

LADDERS, PLATFORMS AND WALKWAYS

The Company shall furnish and install where possible, prior to shipment, on the boiler unit, a steel ladder, platform, cage and rail guard essentially as shown on drawing B7S-19104 for front and rear drum manhole, economizer and steam drum access.

All joints to be continuously welded.

The complete complement of platforms, ladders and walkways shall be galvanized.

Guadalupe Bordin
Guad. No. 07-07000

SERVICES OF ENGINEERS

The Company shall furnish the services of a Factory Engineer for the purpose of checking the completed installation for correctness, for the purpose of advising during the initial adjusting of burner and controls (if furnished) and for the purpose of consulting with and advising the customer's employees during the start-up period at a per diem rate of \$100.00 per day plus travel time and travel expense.

Should a superintendent of erection be required for supervision of field installation work and supervision of boil-out, drying out and testing, these services can be provided for by the Company at an additional charge of \$100.00 per day per man as required. Operation, insurance requirements and fuel are the responsibility of the Purchaser.

SPLIT DAMPERS FOR SUPERHEAT CONTROL

The Company shall furnish for the unit, for field mounting by others, one (1) set of Boiler Outlet Dampers of the multiple louvered type. These dampers are of the dual (split uptake) type and each side is complete with operating levers.

These Dampers will:

1. Permit the control of the flow of combustion gases over the superheater section and the resultant manual adjustment or automatic control of the superheater outlet temperature at a constant value down to half load. If automatic control is desired, the controllers and temperature sensing equipment is to be supplied by others.
2. Permit closing of the superheater section to the flow of combustion gases for protection against superheater element overheating during start-up.

DRUM END COVERS AND SAFETY VALVE COVERS

The Company shall furnish and install drum end covers complete with removable access panel for covering the lower front and all rear drum heads for weather protection. Safety valve covers are provided for covering the safety valves for weather protection.

CONDITIONS OF PROPOSAL

1. The Company has not included any Federal Excise, State or local taxes as brought out on Sheet PC-124 enclosed with this proposal.
2. The services of an erection superintendent and services of an engineer to advise and consult during the start-up have been quoted on a per diem basis.
3. Insulation will be furnished and installed by the Purchaser on all equipment unless otherwise described.
4. Combustion controls and instruments by the Purchaser.
5. Fan drives by Purchaser.

Grant & P. Ranch
Contract No. 07-0703-C

STANDARD GENERAL PERFORMANCE FORM

Performance data for the equipment covered, are submitted herewith and made a part of this proposal in the standard form recommended by the AMERICAN BOILER MANUFACTURERS ASSOCIATION AND AFFILIATED INDUSTRIES.

CONDITIONS.

The performance data herein are based on the conditions as stated in Pars. 1 to 6 incl.

1. The general arrangement of equipment furnished by the COMPANY, and the general design and arrangement of related equipment furnished by others, shall be not less favorable than indicated below:

The equipment shall have been erected in accordance with the COMPANY's plans and specifications, properly maintained and operated by the PURCHASER, and shall be in operating condition satisfactory to the COMPANY. The heat absorbing surfaces shall be clean inside and out.

~~2. There shall be sufficient draft available at the burner to take care of the gaseous products of combustion such as in the case of a gas burner, and in the case of a liquid fuel burner, the draft shall be sufficient to overcome the resistance through the unit including the breeching and stack. Means shall be provided to control the furnace pressure and the supply of air at minimum ratings.~~

2. (Alternate for Pressure Firing when Forced Draft Fan furnished by Purchaser). There shall be sufficient forced draft fan capacity available to provide the necessary air for combustion at a pressure at the burner windbox required to overcome all of the resistance through the unit including the breeching and stack. Means shall be provided to control the furnace pressure and the supply of air at minimum ratings.

~~3. (Alternate for Pressure Firing when Forced Draft Fan furnished by Company). There shall be sufficient forced draft fan capacity available to provide the necessary air for combustion at a pressure at the burner windbox required to overcome all of the resistance through the unit including the breeching and stack. Means shall be provided to control the furnace pressure and the supply of air at minimum ratings.~~

3. Ambient air conditions:

Temperature of boiler room air, deg F.....	80
Relative humidity of boiler room air, per cent.....	60
Barometric pressure, in. Hg.....	29.921
Weight of water per lb. of air, lb.....	0.013

Guillermo Benito
Calderon, N.Y.

4. The fuel characteristics shall not be less favorable than indicated by the following analyses:
FUEL (As Fired) ~~(Dry)~~

Source of Analyses				LIQUID	Kind	
Company Standards					Gravity °A.P.I.	
					Required Viscosity at Burner	
					Oil Press. at Burner lb./sq. in.	
					Steam Press. at Burner lb./sq. in.	
SOLID	A.S.T.M. STANDARD D-388-38	Kind		GASEOUS	Kind	
		Class			Natural Gas *	
		Group			Sp. Gravity Relative to Air	
			.66 @ 60 deg. F.			
			Gas Pressure at Burner in. Hg			
	SOURCE	Mine			15-16 in.	
		Seam			Gas Temp. at Burner °F.	
		District			60 deg.	
		County				
		State				
	Size				Fuel	
	Grindability				Natural Gas	
	Surface Moisture Per cent				Per cent By	
	PROX. ANALYSES Per cent	Moisture			Volume	
		Vol. Matter			Ash	
Fixed Carbon				S		
Ash				H ₂		
Total				6.0		
ASH TEMP. Deg. F.	() Reducing () Oxidizing				C	
	Initial Def.	Min.	Max.			
	Softening					
	Liquid					
	Ash Per cent					
				ULTIMATE ANALYSES	CH ₄	
					45.0	
					C ₂ H ₄	
					4.0	
					C ₂ H ₆	
					4.0	
					CO	
				CO ₂		
				SO ₂		
				H ₂ O		
				N ₂		
				3.0		
				O ₂		
				TOTAL		
				100.00		
				Btu/lb.		
				HHV 20,350		
				Btu/cu. ft. at 60° F. 30 in. Hg		
				HHV 1039		

*Above fuel used for Performance Calculations
actual fuel will vary from 850 BTU/SCF
to 1200 BTU/SCF. Burners will be
drilled for 1039 BTU/SCF.

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UNION IRON WORKS
P.C. 103

PROPOSAL-CONTRACT

Contract No. 07-1000-0
Order No. 07-1000-0

D&E 00881

5. OPERATING CONDITIONS.

	<u>BASE BID</u>		
Actual Evaporation—lb. per hr.	62,500	100,000	125,000
Rating—per cent	.....	.....	.....
Heat Output—kB/hr.	.....	.....	.....
Pressure at <u>Suphr.</u> outlet, lb. per sq. in.	425	425	425
Steam Temp. at <u>Suphr.</u> outlet, deg. F.	535	594	600
Feed Temp. entering <u>Economizer</u> deg. F.	240	240	240
Blow-down (lb. of water per hr.)	.....	.....	.....
Temperature of air leaving air heater, deg. F.	.....	.....	.....
Gas Temp. leaving <u>Economizer</u> deg. F.	291	320	343
CO₂ excess air in gas leaving furnace, per cent	10.0	10.0	10.0
CO₂ excess air in gas leaving <u>Economizer</u> per cent	10.0	10.0	10.0
Gas Temp. Lvg. Blr., Deg. F.	530	592	631
Air Temp. to Blr. Deg. F.	30	80	80
Air Entering Blr., PPM	65000	104000	131000
Gas Lvg. Blr., PPM	68500	109600	138200

6. HEAT LOSSES - PER CENT.

Dry Gas	3.70	4.20	4.59
Hydrogen and Moisture in Fuel	10.41	10.91	11.00
Moisture in Air	.10	.11	.12
Unburned Combustible	.....	.....	.....
Radiation	.90	.60	.43
Unaccounted For	.....	.....	.....
Manufacturer's Tolerance	1.00	1.00	1.00
Total Heat Loss	16.41	16.82	17.19
Efficiency - % (HHV)	83.59	83.18	82.81

GENERAL.

7. It is recognized that the performance of the equipment covered in this proposal cannot be exactly predicted for every possible operating condition. In consequence, any predicted performance data submitted are intended to show probable operating results which may be closely approximated but which cannot be guaranteed except as expressly stated in the guarantee clause or clauses in this proposal.

8. Any performance curves submitted are for the PURCHASER'S convenience and the performance indicated thereon is not offered by the COMPANY, nor to be construed by the PURCHASER, as a proposal or contract obligation.

AMERICAN BOILER MANUFACTURERS ASSOCIATION AND AFFILIATED INDUSTRIES

TESTS.

9. Performance tests — if required — shall be run within 30 days after the PURCHASER shall have received notice from the COMPANY that the equipment furnished is ready for testing, it being understood that the COMPANY may require preliminary tests. Tests shall be conducted only on one representative unit mutually agreed upon by the PURCHASER and the COMPANY. The PURCHASER, at his own expense, shall make all preparations, furnish all operating and testing personnel and incur all expenses connected with such tests, and shall give to the COMPANY at least 15 days' notice of the date or dates on which tests will be made.

The COMPANY's representative shall have access to the records at all times, and the test shall be conducted in a manner to satisfy the COMPANY that the specified performance conditions are being maintained. A complete copy of test data and results shall be furnished to the COMPANY.

The equipment shall be considered as accepted if tests show that the guarantees, if made, have been fulfilled, or if the PURCHASER shall fail to have said equipment tested within period mentioned. In case of failure to meet performance guarantees, the COMPANY reserves the right to change or replace the equipment furnished so that guaranteed performance will be obtained.

10. Performance tests — if required — and performance calculations shall be made in accordance with the applicable Short Test Form in the latest edition of the A.S.M.E. Test Code for Stationary Steam Generating Units, and the measure of performance shall be the results of such tests. Performance calculations shall be based on the steam tables in the latest edition of "Thermodynamic Properties of Steam" by Keenan & Keyes.

STANDARD GUARANTEED PERFORMANCE
STEAM GENERATING UNIT OR
BOILERS—WITH OR WITHOUT WATER WALLS

CONDITIONS.

1.1 The CO_2 or excess air in gas leaving the furnace shall be determined by sampling uniformly across the width of the furnace. There shall be no delayed combustion beyond the furnace outlet.

1.2 The draft loss through the boiler is the draft loss from a point immediately in front of the highest point at which the combustion gases leave the furnace to a point immediately in front of the boiler damper.

1.3 *Water:* The condition of the concentrated boiler water shall be such that:

(a) The total solids do not exceed ³⁰⁰⁰ ppm;

(b) The total suspended solids do not exceed ²⁵⁰ ppm;

(c) The total alkalinity does not exceed ⁶⁰⁰ ppm

~~The total solids in the entering feedwater shall not exceed _____ ppm. (Delete this sentence if steam not intended.)~~

Chemicals used for internal treatment should be supplied to the boiler preferably through a separate boiler connection, used exclusively for that purpose and in such a manner so as to prevent deposits on drum internals which would interfere with proper operation.

1.4 Samples of water for testing shall be taken from the continuous blowdown, if installed, otherwise through a suitably located sampling pipe. Samples shall be taken through a cooling coil to prevent flashing. Sampling and determination of boiler water conditions shall be under the methods contained in ASTM Special Technical Publication No. 148.

1.5 *Responsibility:* The treatment of feedwater and the conditioning of boiler water are beyond the control of the COMPANY. Therefore, the COMPANY shall not be held responsible for damage due to the presence of oil, grease, scale or deposits on the internal surfaces of the equipment; or for damage resulting from foaming caused by chemical conditions of the water; or for damage resulting from corrosion or caustic embrittlement.

The COMPANY shall not be responsible for carryover resulting from the presence of oil, grease or other foam inducing materials.

1.6 *Test Procedure for Solids in Steam:* Samples of condensed steam for determination of solids shall be obtained in accordance with the method specified in the latest edition of ASTM D-1066 entitled Tentative Method for Sampling Steam.

There are two commonly accepted methods for the determination of solids in steam. These are—

1. Electrical conductivity method for dissolved solids.
2. Gravimetric method for total solids.

Because of the normally small difference in the total and dissolved solids, and the complexity, time and degree of skill involved in the gravimetric determination, it is usual to accept the electrical conductivity method of testing.

The electrical conductivity determination of dissolved solids in the condensed steam shall be made in accordance with ASTM D-1125-50 T, Tentative Method on Electrical Conductivity of water. Remove dissolved gases from the sample as completely as possible by mechanical means without contaminating the sample with any added material which will increase its conductivity. The conductivity shall be corrected to compensate for residual ammonia, carbon dioxide or other gases remaining in the sample and the dissolved solids shall be calculated from this corrected conductivity. For measuring performance by the electrical conductivity method, the average of ten determinations made at regular intervals throughout the test period shall be used.

The gravimetric determination of total solids in the condensed steam may be made in accordance with Method A of the latest edition of ASTM D-1069 entitled Tests for Suspended and Dissolved Solids in Industrial Waters, or a similar method embodying the essential principles of that specification. For measuring performance by the gravimetric method, the results shall be expressed as the average of three determinations made upon a composite sample which shall be taken throughout the entire test period.

STEAM GENERATING UNITS

A steam generating unit is defined as a combination of boiler, superheater, air heater and/or economizer.

GUARANTEES

Subject to the conditions specified above and in preceding Standard General Performance Form, the COMPANY makes the following guarantees:—

- 1.7 **Peak Load Capacity** The unit can be operated for a period not exceeding.....hr. at a capacity not exceeding.....lb. of steam per hr., with an interval of not less thanhr. between each such period.
- 1.8 **Performance at Normal Continuous* Capacity** At a capacity of.....~~125,000~~.....lb. of steam per hr;
- (a) The combined efficiency of the unit will not be less than.....~~82.81~~.....per cent;
 - (b) The average draft loss through the unit will not exceed.....~~16.34~~.....in. of water;
 - (c) ~~The average moisture content in steam leaving the boiler will not exceed 100.0000 per cent;~~
 - (d) The average temperature of the steam leaving the superheater will be ~~600~~.....F plus or minus 10 F;
 - (e) The steam pressure drop between boiler drum and.....~~high pressure~~.....outlet will not exceed.....~~34~~.....lb. per sq. in.;
 - (f) ~~The average water pressure drop through the economizer will not exceed 10.0000 lb. per sq. in. of water.~~
 - (g) The average water pressure drop through the economizer (not including valves) will not exceed.....~~10.9~~.....lb. per sq. in.;
 - (h) The total solids in the steam leaving the boiler will not exceed.....~~1~~.....p.p.m.

Pounds Steam Per Hour	62,500	100,000	125,000
Heat Release BTU/Ft.³/Hr. (HHV)	49,300	79,800	100,600
Heat Release BTU/Ft.⁴/Hr. (HHV)	98,400	159,600	192,000

Gundrupa Borden
Contract No. GT-5703-C

GENERAL CONDITIONS

This proposal, including any drawings submitted pertaining thereto, is the property of the Company; it contains confidential information and is loaned to the Purchaser on condition that he and his representatives have, by receiving it, agreed not to, without permission, reproduce or copy it, in whole or in part, or to furnish information from it to others, or to make any use of it that is, or may be, injurious to the Company, and to return it upon request.

DRAWINGS

The Purchaser shall furnish the Company with all information, instructions and drawings requisite to the execution of the work.

The Company shall not furnish any drawings other than such general arrangement drawings as are necessary for the work. The Company shall furnish its drawings promptly and the Purchaser shall check, approve and return one set without delay. If desired the Company shall furnish free of charge not more than five (5) sets of prints of above drawings and five (5) sets of operating instructions. Additional sets of prints or operating instructions, if required, shall be furnished at current prices.

SHIPPING DATE

The shipment of the equipment herein shall start - **See accompanying letter** (hereinafter called the contract shipping date) after receipt of the acceptance of this proposal, or the final approval of all drawings and contract details, or after receipt of material, whichever date may be the later.

TRANSPORTATION AND DELIVERY

Transportation charges from point of shipment to closest railroad siding to location of installation shall be paid by **the Company**.

In the event of change in freight rates or taxes thereon prior to delivery, and provided that the contract price includes transportation charges to be paid by the Company, such contract price shall be adjusted to cover the additional or reduced cost to the Company due to such change in freight rates or taxes.

The type of transportation and the routing shall be controlled by **the Company**.

Unloading, hauling and handling between the points of delivery by the transporter and the site of erection shall be done by **the Purchaser**. If hauling is done by the Company, the Purchaser shall provide railroad siding for use of the Company within 200 feet of boiler site.

LIABILITY FOR DELAYED SHIPMENT OR ERECTION

The Company shall not be liable for any loss or damage resulting from delay in shipment or in erection (if the Company has assumed any obligation with respect to erection hereunder) caused by fires, floods, strikes, riots, thefts or accidents, or any other cause whatsoever beyond the reasonable control of the Company which may delay or prevent delivery or erection of the equipment to be furnished hereunder. In the event of delay in or postponed-erection arising from causes beyond the control of the Company, the Purchaser shall protect the equipment against damage from weather and other causes.

The Company shall not be liable in any event for loss of anticipated profits, loss by reason of plant shut-down, non-operation or increased expense of operation of other equipment, or other consequential loss or damage of any nature except as may be hereinafter specifically provided.

RESPONSIBILITY

The quality of feedwater and its treatment are beyond the control of the Company. Therefore, the Company shall not be held responsible for damage due to intercrystalline cracking, commonly known as caustic embrittlement, corrosion, scale or other deposits on the internal surfaces of the equipment. The Company shall not be responsible for corrosion of materials caused by the corrosive characteristics of the fuel burned. The Company shall not be liable for any injury to persons, damage to property or consequential damages whatsoever caused by or in any way attributed to the design, operation or mal-functioning of any control equipment or control devices of any kind or nature whatsoever, whether or not furnished by the Company and whether or not operated on suggestions of the Company. It shall be the Purchaser's responsibility to properly operate, care for and maintain in good working condition all control equipment or control devices offered in this Proposal-Contract. Unattended operation is not recommended.

STEEL WORK.

Unless otherwise stated, any supporting steel to be furnished by the COMPANY as specified in this Proposal will be designed to support the equipment which the COMPANY proposes to furnish and will be designed in accordance with the latest Rules of the American Institute of Steel Construction. If the COMPANY is required to increase the size or weight of its supporting structures to conform to other than these Rules or because of additional loadings imposed by the PURCHASER, the PURCHASER shall reimburse the COMPANY for the additional steel required.

LIABILITY AND DAMAGE TO PERSONS OR PROPERTY.

1. **LIABILITY AGREEMENT.** The COMPANY shall be responsible for any loss by reason of the liability imposed upon it by law for damages

- (a) because of bodily injuries, including death at any time resulting therefrom, accidentally sustained by any person or persons, and
- (b) because of accidental injuries to or destruction of property

occurring prior to the completion of the work contemplated by this proposal and due to any negligent act or omission of the COMPANY or of its employees, or of its sub-contractors, or of such sub-contractors' employees in connection with the performance of such work; but this agreement shall not include such injuries to any person or persons or injury to or destruction of any property due to any negligent act or omission of the PURCHASER, or of his employees, or of any employee paid by the PURCHASER who may be utilized by the COMPANY to do all or any part of the work called for under this proposal.

2. **INSURANCE AGREEMENT.** The COMPANY shall provide and maintain at its own expense until completion of the work the following forms of insurance in respect of its own employees:

WORKMEN'S COMPENSATION INSURANCE including **EMPLOYERS LIABILITY INSURANCE** in accordance with the laws of the state in which the COMPANY may be required to pay compensation;

PUBLIC LIABILITY INSURANCE with an individual limit of not less than \$100,000 and a total limit for any one accident of not less than \$200,000 (but not in respect of any employee paid directly by the PURCHASER but utilized by the COMPANY).

3. **LIABILITY FOR DAMAGE TO PERSONS OR PROPERTY IF CAUSED BY EMPLOYEES OF THE PURCHASER.** If the PURCHASER furnishes workmen for the unloading, transportation, loading, handling or erection of the equipment to be furnished by the COMPANY hereunder, or if the COMPANY or its Erection Supervisor utilizes workmen paid directly by the PURCHASER, to perform the work covered by this Contract, then the PURCHASER shall indemnify and hold harmless the COMPANY from any and all liability, claims, suits or expenses in connection with bodily injuries including death at any time resulting therefrom and in connection with any damage to or loss of property, sustained by any person or persons including such workmen, occurring during the performance of such work, except such injury, death, damage or loss as may result from the negligent acts or omissions of the COMPANY or its employees. The PURCHASER shall at his own expense defend any and all suits brought against the COMPANY alleging any such injury, death, damage or loss, even if such suit or suits are groundless, false, or fraudulent.

4. **RESPONSIBILITY OF PURCHASER FOR OPERATION OF EQUIPMENT PRIOR TO FINAL ACCEPTANCE.** With respect to all preliminary operations, demonstration of capacity and performance guarantees, representatives of the COMPANY are authorized only to advise and consult with the PURCHASER or its representatives and no representative of the COMPANY is licensed to operate the equipment. In the event the PURCHASER shall operate the equipment specified hereunder prior to final acceptance, the PURCHASER shall indemnify and save harmless the COMPANY against any loss or expense and against any liability imposed upon the COMPANY for any injury to person or damage to property, including the equipment furnished by the COMPANY, resulting from the operation of such equipment by the PURCHASER prior to final acceptance, except any such loss, expense or liability for injury or damage, resulting from the negligent acts or omissions of the COMPANY or its agents or employees.

5. **NOTIFICATION OF CLAIMS.** The PURCHASER shall notify the COMPANY immediately, by Registered Mail addressed to the COMPANY at its Main Office, of all claims brought against the PURCHASER for which the COMPANY may be liable and the COMPANY shall notify the PURCHASER immediately, by Registered Mail addressed to the PURCHASER at **Corpus Christi, Texas**, of all claims brought against the COMPANY for which the PURCHASER may be liable.

Charles D. Smith
General Manager
Union Iron Works

**WARRANTY 1
AND LIMITATION
OF LIABILITY
OF CONTRACTOR**

The COMPANY shall repair or shall replace f. o. b. point of shipment, any parts of said equipment which within one year from date of initial operation are found to be defective in design, workmanship or material and shall repair or replace, on a straight time basis, that portion of the COMPANY's work, found to be defective within said period of one year; provided said equipment is operated and maintained by the PURCHASER in accordance with generally approved practice and in accordance with the conditions of service, if any, herein specified and provided the PURCHASER notifies the COMPANY in writing as soon as such defect becomes apparent. No warranty other than title shall be implied from the manufacture, sale, furnishing or erection of any of the said equipment to be furnished hereunder, or its use, except as may be otherwise specifically provided herein. The liability of the COMPANY arising out of the manufacture, sale, furnishing or erection of the equipment hereunder or its use, whether on warranties or otherwise, shall be limited to the cost of repair or replacement of defective parts on a straight time basis as herein specified, and in no event shall the COMPANY be liable for any loss or damage whatsoever, whether resulting from damage to person or property in any manner, or whether resulting from loss of anticipated profits or otherwise by reason of shut-down or non-operation of the plant; and such liability shall terminate upon the expiration of said one year. Liability of the COMPANY covering such items as valves, fittings, piping, soot blowers, fans, motors, refractories, etc., or any other items not manufactured by the COMPANY shall be limited to guarantees of the respective manufacturers of these items to the COMPANY. The COMPANY shall not be responsible for work done, equipment or parts furnished, or repairs made by others, or for any loss or expense arising from such work, equipment, parts or repairs. The COMPANY shall not be responsible for consequential damages and injuries resulting from any cause including negligence.

PATENTS 2

The COMPANY shall defend at its own expense any suit or action brought against the PURCHASER based on a claim that the equipment, or any part thereof, furnished hereunder constitutes an infringement of any patent of the United States, if notified promptly in writing and given authority, information and assistance for the defense of same, and the COMPANY shall pay all damages and costs awarded therein against the PURCHASER. In case the equipment or any part thereof is in such suit held to constitute infringement and its use is enjoined, the COMPANY shall, at its own expense, either procure for the PURCHASER the right to continue using said equipment; or replace same with non-infringing equipment; or modify it so it becomes non-infringing; or remove said equipment and refund the purchase price and the transportation and installation costs thereof.

INSURANCE 3

Until the equipment is fully accepted and the contract price paid in full, the PURCHASER shall provide and maintain insurance to the total value of the equipment, from and after the date that risk of loss of and damage to equipment is assumed by the PURCHASER and all work performed in the erection thereof against risks of fire and explosion, including inherent and boiler explosion (broad coverage). Risk of loss or damage to the equipment shall pass to the PURCHASER upon delivery of the equipment or any portion thereof to a common carrier at point of origin in the case of shipments f. o. b. point of origin and when equipment arrives at destination in case of shipment f. o. b. point of destination. All loss to the PURCHASER and to the COMPANY resulting from failure of the PURCHASER to effect and maintain such insurance shall be assumed and paid by the PURCHASER.

**BACK CHARGES 4
AND
ALLOWANCES
FOUNDATIONS 5**

The COMPANY shall not be called upon to make any allowance for material, labor, repairs or alterations made for its account unless authorized by it in writing.

The COMPANY shall provide the PURCHASER with general arrangement drawings showing the equipment with reference to foundations, including loading diagrams and showing location of anchor bolts in the foundations. The COMPANY shall not be responsible for the depth of the footings, size or accuracy of the foundations or the character of the materials selected for their construction. Adequate foundations, having plan measurements in accordance with such drawings including foundation bolts and plates, concrete work, all grouting and excavation, shall be furnished in place in due time by the PURCHASER. The COMPANY shall not be responsible for any damages, or repairs necessary to the equipment furnished by it, caused by or resulting from defects in or settlement of the foundations.

If the work required of the COMPANY includes any excavation or foundations below the floor line, the price named herein covers only the excavation of ordinary dry soil to a depth of 18", assuming that remaining soil will be found of sufficient supporting strength so that foundations need not be more than 6" wider than the structure supported thereon. If it is necessary, on account of unsatisfactory soil conditions, for the COMPANY to excavate more deeply or to install wider or deeper foundations, or if it is necessary for the COMPANY to excavate or remove rock, concrete or other solid interference, or to waterproof any excavation or foundations, or to underpin existing structures, the PURCHASER shall pay the COMPANY for all such additional work at cost plus 15%.

TAXES 6

Any tax now or hereafter imposed by any federal, state, municipal or other government agency, based on or measured by the sale, use, ownership or possession of material, equipment, or services used or consumed in the performance of the work included in this proposal or by the gross receipts from this transaction or any allocated portion thereof or by the gross value of the material, equipment, or services covered herein, or any similar tax, shall be paid by the PURCHASER. The PURCHASER, immediately upon the presentation of a bill therefor, shall pay the COMPANY the amount of such tax which the COMPANY may be required by law to collect and/or pay. Rulings of authorities in charge of administration of such law that such a tax is imposed shall be final and binding upon the PURCHASER.

Guadalupe Banda
Cantos No. 67-3793-C

PRICE AND TERMS.

The contract price shall be - **See accompanying letter**
or as per accompanying letter and as stated in the acceptance of the proposal, payable in New York exchange
free from collection charges to the COMPANY and to be paid as follows, payments to be prorated as
shipments go forward:

95 % net cash on shipment, ~~on presentation of sight draft with bill of lading attached at the option~~
~~of the COMPANY.~~

5 % net cash 30 days from date of shipment.

When the equipment is ready for shipment and shipment is deferred beyond the contract shipping
date through no fault of the COMPANY, 95 % of the contract price shall nevertheless be due on the contract
shipping date and 5 % in 30 days from date of actual shipment. In the event of shipment being so deferred
for six months or more, beyond the contract shipping date, the final payment of 5 % shall be due and
payable at the expiration of such period of six months. The PURCHASER shall also pay to the COMPANY
all storage, painting, handling, and insurance premium charges when resulting from such delays in shipment.

"The prices quoted for the proposed base bid equipment and any alternates are F.O.B. point of
manufacture with full freight allowed and prepaid to closest railroad siding to location of installation and
are subject to confirmation of final clearances from carriers."

PRICE ADJUSTMENT

In the event that shipment is delayed beyond the contract shipping date for reasons beyond the control of the Company, including, but not limited to, the causes recited in the paragraph in the General Conditions captioned "Liability for Delayed Shipment", or at the request of the Purchaser, the contract price shall be adjusted in accordance with the Company's standard "Material and Shop Labor Price Adjustment Clauses".

WIRING

All shop wiring included in this proposal shall be done in accordance with the National Electric Code. If area regulations require a departure from the type of wiring included in this proposal, or if area regulations require rewiring in the field, such additional expense shall be paid for by the Purchaser.

UNIFIED SHIPMENT

When rail shipment is included in this proposal, each boiler unit shall be shipped in carload lot to the standard gauge railroad siding nearest the Purchaser's plant site, depending upon the Company's ability to obtain shipping clearance from the railroad company.

When truck shipment is included in this proposal, each boiler unit shall be shipped in truckload lot to the Purchaser's plant site, depending upon the Company's ability to obtain shipping permits from the state, county or city road commissions.

When shipping charges are included in this Proposal-Contract or accompanying letter of quotation, any change in transportation carrier or method of shipment from that contemplated by the Company will result in an adjustment of the price to cover the additional or reduced cost to the Company.

STANDARD ASSEMBLIES

Any changes made in the material furnished or to the shop assembly of the boiler unit as described in this Proposal-Contract or accompanying letter of quotation will result in an adjustment of the price to cover the additional or reduced cost due to such change. In the event that any changes are made, the delivery estimate as established by the Proposal-Contract or accompanying letter of quotation will become void.

PIPING

All shop assembled piping shall be made tight at the factory prior to shipment. Any leakage developed during shipping, transporting or handling after leaving the factory shall be corrected by the Purchaser with no recourse to the Company. If repiping is required in the field for any reason, the additional expense shall be paid for by the Purchaser.

INSURANCE REQUIREMENTS

Control system design and components included are usually acceptable to insurance groups such as Factory Mutual Insurance Association and Factory Insurance Association, however, the Purchaser must obtain actual approval by submittal to their insurance carrier. The Company will assist the Purchaser by furnishing suitable drawings and descriptions. Any changes required to obtain approval will be made, and the price will be increased accordingly.

TAXES.

The prices provided for herein are exclusive of any present or future Federal, State, Municipal or other sales or use tax with respect to the material or equipment or services covered hereby and of any other present or future excise tax upon or measured by the gross receipts from this transaction or any allocated portion thereof or by the gross value of the material or equipment covered hereby. If the COMPANY is required by applicable law or regulation to pay or collect any such tax or taxes on account of this transaction or the material or equipment or services covered hereby, then such amount of tax shall be paid by the PURCHASER in addition to the prices herein provided for.

Guaranteed
Oct 28, 1968

PERMITS AND APPROVAL OF PLANS AND SPECIFICATIONS REQUIRED BY STATE OR MUNICIPAL REGULATIONS.

It is mutually agreed that where State laws or Municipal ordinances require permits to install equipment covered by this proposal, or the approval of the plans and specifications for this installation, the PURCHASER assumes the responsibility for securing the approval of said plans and specifications from the proper State or Municipal authorities and for any required fees. If any changes are required in the equipment covered by this proposal to meet the approval of said State or municipal authorities, the PURCHASER shall inform the COMPANY of such changes and shall reimburse it for changes actually made to comply with the requirements of said authorities.

TITLE AND RIGHT OF POSSESSION.

The title and right to possession of the property called for and furnished under the terms of this contract, and any replacements thereof or substitutions therefor, and the right to use the same under the patents of the COMPANY, if any, shall remain in the COMPANY until all payments due hereunder, and payments of any judgments thereon, shall have been fully made in cash. The equipment herein specified shall remain the personal property of the COMPANY, notwithstanding the manner of its annexation to realty, until fully paid for in cash, and the PURCHASER agrees to perform all acts which may be necessary to perfect and assure retention of title to the said equipment in the COMPANY.

Any payments made on account of the purchase price shall in case of any default in payment be deemed to be for the use and wear of such equipment. The acceptance of notes (or any renewal thereof) or any security for the purchase price shall not operate as a waiver or transfer of title or right of possession. If any payments due to the COMPANY hereunder shall have been in default for sixty (60) days after the due date, all unpaid installments shall become due and payable, and the COMPANY, in addition to any other remedies then available to it, reserves the right on ten (10) days' notice to the PURCHASER to remove the equipment furnished hereunder, using all reasonable care to avoid damage to the property of the PURCHASER but without liability for any damage resulting therefrom.

LIMITATION OF PROPOSAL.

The price and terms quoted in this proposal are subject to acceptance by the PURCHASER within a period of 15 days from the date hereof, except that the COMPANY shall have the right to withdraw its proposal at any time before formal acceptance by the PURCHASER and approval in writing by an officer of the COMPANY.

EXECUTION OF CONTRACT.

This proposal is made in duplicate and shall become a contract between the PURCHASER and the COMPANY when accepted by the PURCHASER and approved in writing by an executive officer of the COMPANY and when so accepted it shall be binding upon the parties hereto and upon their respective heirs, executors, successors and assigns. When so accepted and approved, it shall be effective for all purposes as of the date of the proposal.

There are no understandings between the parties hereto as to the subject matter of this proposal other than as herein set forth. All previous communications between the parties hereto, either verbal or written, are hereby abrogated and withdrawn and the acceptance of this proposal with the specification

ABRASION, EROSION AND CORROSION

To study the effect of abrasion, erosion, corrosion or excessive heat, the Engineering Committee of the Air Moving and Conditioning Association has been investigating and experimenting with plate alloys, materials, coatings and forms of construction. To date no materials or means have been discovered which will effectively and completely resist all such effects. Some materials are better than others. The resistance to such effects, therefore, is one of degree only.

Experience having shown, on the basis of present-day knowledge, that abrasion, erosion, corrosion or deterioration from excessive heat are speculative assumptions of maintenance, it is the policy of the Association to advise buyers of fan equipment that guarantees covering such conditions cannot be made in good faith.

FIELD TEST OF FANS

Research undertaken by the Members of the Association in cooperation with Test Code Committees of the Engineering Societies reveals thus far that no accurate or practical method of testing fans in the field has been developed by means of gas analysis or by use of the Pitot tube or other instruments.

Since the values obtained from field tests vary so widely from actual results, guarantees of the performance of fans can only be made from laboratory tests conducted by the manufacturer in accordance with the "Standard Test Code for Centrifugal and Axial Fans" approved jointly by the Air Moving and Conditioning Association Inc., and the American Society of Heating and Air Conditioning Engineers, with cooperation from Committee No. 10 of the Power Test Code Committee of the American Society of Mechanical Engineers.

In accordance with Paragraph 17 of the "Standard Test Code for Centrifugal and Axial Fans" the performance of fans with wheels larger than 35" in diameter may be calculated from tests made on fans of the same design and similar proportions having a wheel not less than 35" in diameter. For fans having wheels less than 35" in diameter the performance may be calculated from tests made on fans of the same design and similar proportions and having a wheel diameter not greater than the rated size. The manufacturer reserves the right in all cases to test proportional fans as outlined in this paragraph.

- (The above is reprinted, with permission, from a publication of
 Air Moving and Conditioning Association Standards).

and drawings referred to herein constitutes the whole agreement between the parties hereto. The contract cannot be assigned nor may the general conditions be modified except by a duly approved supplementary agreement signed by both parties. Any provisions of a purchase order or specification which may be issued after this Proposal has been accepted by the PURCHASER and which are additions to or in conflict with the provisions of this Proposal shall not be binding on the COMPANY unless duly approved in writing by both parties to the contract.

ARBITRATION.

Any controversy or claim arising out of or relating to this contract or the breach thereof, shall be settled by arbitration, in accordance with the Rules, then obtaining, of the American Arbitration Association, and judgment upon the award rendered may be entered in any court having jurisdiction thereof.

This contract is made in Erie, Pennsylvania.

Respectfully submitted,

UNION IRON WORKS

By_____

THE FOREGOING PROPOSAL IS HEREBY ACCEPTED EFFECTIVE FOR ALL PURPOSES AS OF THE DATE OF THE PROPOSAL.

Executed by the parties this_____day of_____19____

(Purchaser)

By_____

Title_____ (SEAL)

APPROVED AS OF ABOVE DATE.

Page 32

UNION IRON WORKS

By_____ (SEAL)

Title_____

UNION IRON WORKS

PROPOSAL-CONTRACT

P-C 125

D&E 00893

Guarantee Bond
Office No. 57-5700-C

PEABODY ENGINEERING CORPORATION

PEABODY LIMITED, PEABODY HOUSE, LONDON, S. W. 1, ENGLAND • PEABODY ENGINEERING CORPORATION OF CANADA LTD., TORONTO, ONTARIO, CANADA

232 MADISON AVENUE, NEW YORK, N. Y. 10016

TELEPHONE: 683-4100
CABLE ADDRESS "PEBENGCOR"
T W X 710-581-3400

ERIC G. PETERSON
CHAIRMAN

JOHN DUNN
PRESIDENT

Cladtype Panda
Cable No. 07-8700-0

Peabody Job No. 4349
Peabody Prop. No. 45550
Southwestern Oil and Refining Company
Corpus Christi, Texas

RECEIVED
AT ERIE

JUN - 9 1967

8,9,10,11,12,1,2,3,4,5

5-90881

June 8, 1967

Union Iron Works
Erie
Pennsylvania

Attention: Mr. T. O. Andrews

Gentlemen:

In accordance with Mr. A. D. Payne's memo dated May 25, 1967, enclosed find four (4) copies of our drawing No. D-62071, gas ring modifications.

This gas ring modification will allow for the use of 1000 BTU per cubic foot gas instead of the originally designed ring which was for 850 BTU per cubic foot gas.

The equipment quoted in our letter dated May 17, 1967, Peabody Prop. No. 45550, will be design and drills for 1000 BTU per cubic foot natural gas.

If we can be of any further assistance, please feel free to contact the writer.

Yours very truly,

PEABODY ENGINEERING CORPORATION

Frank Gullo
Frank Gullo

FG:elg
Encl.
Letter in duplicate

D&E 00894

PEABODY ENGINEERING CORPORATION

PEABODY LIMITED, PEABODY HOUSE, LONDON, S. W. 1, ENGLAND • PEABODY ENGINEERING CORPORATION OF CANADA LTD., TORONTO, ONTARIO, CANADA

232 MADISON AVENUE, NEW YORK, N. Y. 10016

TELEPHONE: 683-4100
CABLE ADDRESS "PEBENGCOR"
T W X 710-581-3400

ERIC G. PETERSON
CHAIRMAN

JOHN DUNN
PRESIDENT

Peabody Job No. 4349
Peabody Prop. No. 45550
Southwestern Oil and Refining Company
Corpus Christi, Texas

RECEIVED
AT ERIE

JUN - 9 1967

8,9,10,11,12,1,2,3,4,5

June 8, 1967

Union Iron Works
Erie
Pennsylvania

Attention: Mr. T. O. Andrews

Gentlemen:

In accordance with Mr. A. D. Payne's memo dated May 23, 1967, enclosed find four (4) copies of our drawing No. D-62071, gas ring modifications.

This gas ring modification will allow for the use of 1000 BTU per cubic foot gas instead of the originally designed ring which was for 850 BTU per cubic foot gas.

The equipment quoted in our letter dated May 17, 1967, Peabody Prop. No. 45550, will be design and drills for 1000 BTU per cubic foot natural gas.

If we can be of any further assistance, please feel free to contact the writer.

Yours very truly,

PEABODY ENGINEERING CORPORATION

Frank Galle
Frank Galle

FG:elg
Encl.
Letter in duplicate

D&E 00896

Guadalupe Pando
Cruz 16, 67-3700-9

**SUBSIDIARY OF RILEY STOKER CORPORATION
ERIE, PENNSYLVANIA**

DATE 9-1-67

RE:PROJECT

PROJECT *Southwestern Oil & Ref Co*
Corpus Christi, Texas
Order No. S-90881-1125

We are transmitting herewith the following drawings, status described below:

[illegible]

••See Code Below

Remarks Sent per your hospital request of Aug. 24, 1967.

Copies to	No.	Drawing Numbers
Eng. Hile	1	Copy of above
Personal	1	" " "
Purchasing	16	" " "

UNION IRON WORKS

James F. Arnold
Asst. Contract Engineer

****STATUS CODE**
FD - For Distribution Only
FA - For Approval
A - Approved
AN - Approved as Noted
N - Not Approved

D&E 00896

Quadrupole Bond
Case 1: 0.07-0.08-0

FORM PTY-1 (8-57)

SOUTHWESTERN OIL & REFINING COMPANY

CORPUS CHRISTI, TEXAS

August 28, 1967

RECEIVED
AT ERIE

AUG 30 1967

8,9,10,11,12,1,2,3,4,5

A

Mr. James F. Arnold ✓
Union Iron Works
Erie, Pennsylvania 16512

Gentlemen:

Enclosed is the print of the turbine drive which
we are furnishing for the forced draft fan. If further
information is required, please notify us.

Very truly yours,

W. G. Todd

WGT:ph

W. G. Todd

Graduate Bonds
Council No. 67-8700-C

D&E 00897

August 24, 1967

Southwestern Oil & Refining Company
Port & Summers Streets
PO Drawer 809
Corpus Christi, Texas 78403

Attn: Mr. F. E. Kemp, Purchasing Agent

125,000# package boiler
for Southwestern O. & Refining Co.
Your P.O. No. 57391
RSC 67079-60
UTX S-90881

Gentlemen:

Today we received a telephone request from the forced draft fan vendor, for a certified print of the turbine drive which the customer is furnishing for this installation. Until such time as the fan vendor receives this drawing he is unable to order the flexible coupling, much less ascertain what boiler will be required to fit the turbine shaft. We ask you to advise us by return wire or letter, when this drawing will be made available for transmittal to the fan vendor.

Very truly yours,

UNION IRON WORKS

James F. Arnold
Asst. Contract Engineer

cc Houston - A.D. Payne
cc Purchasing Dept. - R. Stokes

JFA/dh

Guadalupe Pardo
Cable No. 67-6702-C

D&E 00898

C
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P
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C
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P
Y

UNION IRON WORKS
DIVISION OF RILEY STOKER CORPORATION
ERIE, PENNSYLVANIA

June 26, 1967

The Tennant Company
Houston, Texas

Mr. A. D. Payne

Southwestern Oil & Refining Company
UIW Contract S-90881
Riley Contract 67079-60
Westinghouse Elec. Corp. AKY-4757H
UIW Order S-90881-1125

Referring to our recent letter of June 12, 1967 written to Westinghouse Electric Corporation, Sturtevant Division in Akron to the attention of Mr. James A. Houck, concerning the condition of the forced draft fan as shipped, we have received a reply dated June 22, 1967, a copy of which is enclosed along with this letter.

As you can see, apparently their shipping situation is equivalent to the same shipping situation as predicted by Buffalo Forge Company on the Humble contract S-90879 in that the fan will be shipped in a considerable number of broken down parts.

We do, however, seem to read into the last paragraph of Mr. Houck's letter that the shaft and wheel will be shipped in an assembled piece.

We trust that this is satisfactory and that it is appreciated by the purchaser that due to the type and size of fan that it is impractical to be shipped in an assembled condition.

Very truly yours,

UNION IRON WORKS

T. O. Andrews

TOA/km

Enclosure

cc Worcester - G. L. Hart

cc Erie - J. P. Arnold ✓

D&E 00899

Enclosure Band
Case No. 67-5703-6

UNION IRON WORKS
1001 N. 10TH ST. E. LEBANON, OHIO 43039
513-325-1234

June 12, 1967

Westinghouse Electric Corporation
Sturtevant Division
1945 West Market Street
Akron, Ohio - 44313

Attention: Mr. James A. Houck

Southwestern Oil & Refining Company
UIW Contract S-90881
Riley Contract 57079-00

Gentlemen:

We are pleased to advise that we have received a purchase order through Riley Stoker Corporation for furnishing one (1) additional boiler unit to Southwestern Oil & Refining Company in Corpus Christi, Texas.

We are hereby assigning Union Iron Works purchase order No. S-90881-1125 to your Company for the purchase of the fan as outlined in your quotation No. 42-PA-2021 dated May 17, 1967.

This contract will be in the amount of \$4,163.00 and will include the equipment as outlined in your quotation.

We have had a question raised by our Houston representative, The Tennant Company, as to the absolute certainty that these fans will be shipped assembled. We have never assumed anything other than the fact that they would be assembled fans, and would like your confirmation in writing that this is the case.

As far as rotation is concerned, kindly use exactly the same rotation as was furnished for the two fans supplied previously.

Kindly submit three drawings for transmittal to the purchaser and for record purposes and since this duplicates the existing installation, we will not ask for drawings for approval. Approval is hereby waived, which means that production on this fan could start immediately.

Confirmation by purchase order will follow and shipping dates and instructions will be contained in that purchase order.

Very truly yours,

UNION IRON WORKS

T. O. A.

Guaranteed Brand
Guaranteed Quality

TOA/km

T. O. Andrews, Sales Dept.

cc Houston - A. D. Payne; Worcester - G. L. Hart; Erie - J. F. Arnold ✓

D&E 00900

OVERBLOWN DOCUMENTS
WITHIN THE CONTENT OF THIS EXHIBIT
ARE NOT IMAGED