

CHEVRON U.S.A. INC.
ENGINEERING DEPARTMENT - EL PASO, TEXAS

SPECIFICATION NO. EP-412-L
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SPECIFICATION NO. EP-412-L
FABRICATION & INSTALLATION OF PIPING-ASPHALT PLANT
EL PASO REFINERY

1.0 SCOPE OF WORK

- 1.1 CONTRACTOR shall provide all utilities, tools, construction equipment, labor, including supervision and inspection, and all items of a consumable nature that are required for construction of the No. 6 Crude Unit Caustic Injection Facilities at the Chevron U.S.A. Inc., El Paso Refinery as detailed by this Specification, including the drawings and other attachments listed in the Appendix.

This work includes but is not limited to: Fabrication and installation of oily water drain piping, steam coil and piping, air supply to G-3658, temperature control manifold in hot oil piping, suction and discharge piping for G-3658 and steam tracing for concrete trenches.

2.0 WORK, MATERIAL AND UTILITIES BY COMPANY OR OTHERS

- 2.1 Utilities: COMPANY will furnish without charge industrial fresh water, 110V electrical power and 80 psig air at nearest point of supply to working site. Connections and extensions from this point to CONTRACTOR'S work areas shall be provided and installed by CONTRACTOR.
- 2.2 Inspection: COMPANY will provide mechanical, ultrasonic and radiographic weld inspection when required.

3.0 SEQUENCE OF WORK

The sequence of work shall be as mutually agreed between the COMPANY and CONTRACTOR and shall be consistent with the facing sheet of the Agreement.

4.0 INTENT

The Facility shall be complete in every respect, constructed in accordance with generally accepted, current good practices of the several trades involved and the detailed requirements of this Specification and ready to operate in the manner expressed or implied herein, regardless of whether or not full details of such completeness or practices are contained herein.

The specifications and drawings are not complete in every detail and CONTRACTOR shall comply with their true intent taken as a whole, and shall not avail himself of any errors or omissions to the detriment of the work. Should any error, omission or discrepancy appear in drawings, specifications and instructions, CONTRACTOR shall notify COMPANY at once, and COMPANY will issue instructions to be followed. If CONTRACTOR proceeds prior to receiving such instructions, necessary corrections shall be at CONTRACTOR'S expense. Any-

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thing not indicated on the drawings or specified in the specifications which is necessary for full and faithful construction of the Facility in accordance with the true intent of this Agreement or anything indicated on the drawings but not specified, or vice versa, shall be provided and incorporated at the expense of CONTRACTOR to the same extent as though fully set forth in both the drawings and the specifications.

5.0 COMPANY REVIEW AND APPROVAL.

COMPANY'S review of, approval of, or agreement to the performance of certain items of work or the provisions of certain material shall in no way relieve CONTRACTOR of full responsibility for the performance of such work, or for the adequacy of such material. All such reviews, approvals or agreements shall be obtained through COMPANY'S Construction Representative, or in a manner previously approved in writing by COMPANY'S Construction Representative.

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SECTION 2 - GENERAL CONDITIONS AND PERFORMANCE OF WORK

6.0 PRECEDENCE

- 6.1 The following items shall take precedence in the order listed in the event of conflict:
- a) Facing Sheet of Agreement
 - b) Terms and Conditions
 - c) Refinery Instruction No. 1404
 - d) This Specification
 - e) Construction Drawings in Appendix A.1 attached to this specification
 - f) Standard Specifications in Appendix A.3 attached to this specification
 - g) Standard Drawings in Appendix A.2 attached to this specification
 - h) Reference Drawings and Specifications, Engineering Instructions, Recommended Practices, and Refinery Instructions in Appendix A.4 attached to this specification.

- 6.2 As used in the standard specifications attached hereto: (a) "Purchaser" shall mean COMPANY; (b) "Supplier" or "Vendor" shall mean CONTRACTOR; and (c) "Purchaser's Inspector" shall mean COMPANY Construction Representative.

- 6.3 Unless otherwise expressly provided in this Specification, (a) any data, specifications, material, and work or any other matter which is covered by this Agreement which the standard specifications require to be provided by COMPANY shall instead be provided by CONTRACTOR; (b) any provisions of the standard specifications requiring COMPANY to inspect certain material or work shall mean that COMPANY has an option, rather than the obligation, to so inspect such material or work; (c) any warranty or guarantee provisions contained in the standard specifications shall be of no effect and the warranty and guarantee provisions of this Specification, if any, shall apply; and (d) any item of material, work, inspection or testing to be furnished at extra expense to COMPANY pursuant to the standard specifications shall be furnished under this Specification at no increase in CONTRACTOR'S compensation.

All provisions in the standard specifications concerning compensation or payment to CONTRACTOR in case of delay shall be of no effect, and the provisions of the Terms and Conditions and of this Specification shall apply.

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In the engineering instructions, reference to COMPANY'S personnel shall be of no effect, and CONTRACTOR'S personnel shall perform all activities which are to be performed under the engineering instructions, except as otherwise provided elsewhere in this Specification.

Where standard specifications on materials contain sections covering COMPANY'S normal requirement for purchasing and field erection, these sections shall be of no effect except as otherwise expressly stated in this Specification.

7.0 FIELD REPRESENTATIVES

7.1 COMPANY'S Representative

COMPANY will maintain a Representative in the field pursuant to Paragraph 4.0, Refinery Instruction No. 1404, General Instructions to Contractors Working Within the Refinery, attached.

Examples of his functions are to:

- a) Establish and maintain field liaison between CONTRACTOR'S Construction Representative and COMPANY.
- b) Provide materials to CONTRACTOR as provided in this Specification.
- c) Review CONTRACTOR'S construction schedule.
- d) Provide drawings and other detailed information.
- e) Explain drawings and specifications as required.
- f) Make such inspections as COMPANY may desire in order to check the quality and progress of the work.
- g) Review and approve field changes or material substitutions, or any other matter where COMPANY'S approval or agreement is required by this Agreement.
- h) Negotiate with CONTRACTOR'S Construction Representative the adjustment in compensation arising from a Change.

7.2 CONTRACTOR'S Construction Representative

CONTRACTOR shall maintain a Construction Representative in the field at all times who shall act in full charge of CONTRACTOR'S work and maintain field liaison between CONTRACTOR and COMPANY'S Construction Representative.

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Examples of his functions are to:

- a) Represent CONTRACTOR in matters pertaining to construction quality, performance schedule and accounting practice.
- b) Represent CONTRACTOR during tests, including but not limited to all tests related to Acceptance of the Facility.
- c) Receive materials from COMPANY as provided in this Specification.
- d) Negotiate for CONTRACTOR the adjustment in compensation arising from a Change.

8.0 OTHER CONTRACTS

COMPANY reserves the right to let other contracts or perform other services in connection with CONTRACTOR'S work hereunder. CONTRACTOR shall afford others equitable opportunities for the introduction and storage of their materials and the execution of their work and shall properly coordinate its work with theirs.

9.0 SCHEDULE

CONTRACTOR shall maintain a detailed construction schedule for all phases of the work.

- 9.1 The construction schedule shall indicate, for each portion of the Facility, the date of the start of the work thereon, job progress and completion date. Completion dates on such constructions schedule shall agree with the Facing Sheet of this Agreement.
- 9.2 COMPANY'S Construction Representative will review the schedule with CONTRACTOR'S Construction Representative at periodic intervals to verify that the Facility is progressing as scheduled. Modifications to the schedule which affect the completion dates established in the schedule must be approved in writing by both CONTRACTOR and COMPANY.
- 9.3 It is understood that the CONTRACTOR'S compensation, as provided for in the Facing Sheet of this Agreement, includes all overtime payments, premiums, bonuses or other extras required to meet this schedule, and that CONTRACTOR shall not be entitled to additional compensation for these amounts except as otherwise provided herein.

10.0 WORK WEEK AND OVERTIME

CONTRACTOR shall pursue to field construction work on a 40-hour per week work schedule in accordance with Paragraph 6.0, Refinery Instruction No. 1404, General Instruction to Contractors Working Within the Refinery, attached.

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11.0 PLANT REGULATIONS

Prior to the commencement of work, CONTRACTOR shall become familiar with the plant regulations specified in ~~The~~ attached Refinery Instruction No. 1404, General Instructions to Contractors Working Within the Refinery and the following regulations. CONTRACTOR shall be responsible for compliance with these regulations during the ~~execution~~ of his work.

11.1 Electrical Safety Requirements

CONTRACTOR shall provide ~~and~~ use ground fault circuit interrupters for personnel protection at ~~all~~ construction sites (including areas inside existing plants) on all 120 volt single phase 15 and 20 ampere receptacle outlets.

Hubbell type GFP or Porta-Power Pak Inc. Model 72 series are typical of acceptable portable receptacle units.

Ground fault circuit interrupters shall not be used in areas where flammable vapors are present.

It is essential that the ~~polarity~~ of the conductors in all cords, plugs and receptacles supplying single pole portable ground fault circuit interrupter units be properly maintained to insure proper operation of the units.

11.2 Work Space and Storage Area

COMPANY will assign space ~~in~~ the general vicinity of the CONTRACTOR'S work for CONTRACTOR'S ~~office~~, work space and storage area.

11.3 Safeguarding Work and Property

Construction activities shall be confined to the work areas and immediate area wherever practicable or required. CONTRACTOR'S operations shall be so conducted that a minimum of damage and inconvenience ~~is~~ caused to other refinery facilities, the public or to owners and tenants of adjoining property affected by the work.

CONTRACTOR'S work and equipment shall be guarded by barricades, delineators, trench covers, etc. Lights shall be installed at idle machinery, or at other obstructions on roads and accessible areas from sunset to sunrise.

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CONTRACTOR shall be responsible for installing temporary roads, as directed by the Company Representative, to maintain access to existing operating and maintenance facilities while construction is proceeding.

All electrical poles, guys, pipelines, drains and other facilities on or near the working area shall be plainly delineated, fenced or roped off by CONTRACTOR, as directed by the Company Representative before the work begins. Repair of any damages to these facilities shall be the responsibility of the CONTRACTOR. When CONTRACTOR, after due notice, fails to restore any facility as required herein at the completion or during the course of the work, COMPANY may perform this work and deduct the cost from the sum due or to become due CONTRACTOR.

12.0 TEMPORARY CONSTRUCTION FACILITIES

- 12.1 CONTRACTOR shall provide and install all necessary temporary facilities including, but not limited to, tool rooms, locker rooms, toilets, office and storehouse. All temporary installations shall be subject to approval by COMPANY prior to installation.
- 12.2 In addition, CONTRACTOR shall provide all necessary temporary equipment and material including, but not limited to, shoring, concrete forms, bracing, ladders, scaffolding, staging, drop cloths and tarpaulins.
- 12.3 CONTRACTOR shall maintain all temporary facilities, material and equipment in a safe and adequate manner and remove them immediately upon completion of the work requiring their presence.

13.0 SURVEYING

CONTRACTOR shall perform all surveying necessary from base lines and bench marks established by COMPANY. The accuracy for all grades, elevations, and plumbing of any structures and location of facilities described in this Specification shall be the responsibility of CONTRACTOR.

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14.0 DELIVERY AND HANDLING OF COMPANY PROVIDED MATERIALS

- 14.1 Materials furnished by COMPANY will be available to CONTRACTOR at the Refinery Storehouse. CONTRACTOR shall provide the necessary labor and equipment for handling and transporting materials.
- 14.2 CONTRACTOR shall be responsible for keeping all material in good condition until Acceptance of the Facility, subject to Section 5.3 of the Terms and Conditions.
- 14.3 Upon completion of the Facility, CONTRACTOR shall provide COMPANY an inventory of all remaining material which was provided by COMPANY including the quantity, description, and the item number for each item. When directed by COMPANY, CONTRACTOR shall transport the remaining material to the locations on COMPANY'S premises designated by COMPANY.
- 14.4 CONTRACTOR'S requests for withdrawal of COMPANY-furnished material and equipment shall be based on quantities shown on drawings or lists of materials furnished by COMPANY. CONTRACTOR shall obtain approval from COMPANY'S Representative before materials in excess of the quantities shown on the drawings or lists of materials will be issued.
- 14.5 CONTRACTOR shall (a) be responsible for keeping all materials and equipment in good condition until the completed Facility is accepted by COMPANY, including without limitation (1) taking any necessary steps such as painting, greasing, installation of rust preventive oil, or covering, etc., to protect all equipment externally and internally from mechanical damage or damage from the elements, and (2) protecting all instruments and control panels from corrosion, etc., due to humidity, precipitation, temperature, and atmospheric conditions or environment; (b) be held accountable for surplus materials furnished by COMPANY, items received from COMPANY and to be returned, and for shortages or damages to equipment and materials furnished by COMPANY.
- 14.6 CONTRACTOR shall promptly check bills of material or drawings for any errors which would result in shortages and shall, notify COMPANY in writing if there are any such errors or if the equipment and materials listed are insufficient to meet his anticipated needs. Delays caused by CONTRACTOR'S failure to discover and promptly report such errors or that the equipment and materials listed are insufficient to meet his anticipated needs. Delays caused by CONTRACTOR'S failure to discover and promptly report such errors or that the equipment and materials listed are insufficient to meet his anticipated needs shall not constitute a basis, for extension of time of completion under Section 3.2. or a basis for reimbursement under Section 3.3 of the Terms and Conditions.

15.0 DRAWINGS AND DIMENSIONS

- 15.1 COMPANY will provide to CONTRACTOR two copies of all pertinent standard drawings, standard specifications, reference drawings, and construction drawings. One copy of Vendor's drawings will be provided for all equipment that COMPANY supplies.
- 15.2 CONTRACTOR shall be responsible for notifying COMPANY if there are any errors in the Specification Drawings and/or conflicts with existing facilities. CONTRACTOR shall submit any proposed change or suggested deviation from the drawings to COMPANY for written approval before beginning fabrication and/or installation.

16.0 INSPECTION AND TESTING

16.1 General

CONTRACTOR shall be solely responsible for thorough craft inspection during construction and for the quality of the work. COMPANY will make such inspection as COMPANY may desire in order to check the progress and quality of the work, to see that CONTRACTOR'S employees are properly qualified in their respective crafts, that workmanship is of an acceptable grade, and that all requirements of this Specification are being met. Such inspection or any other inspection or testing by COMPANY shall in no way relieve CONTRACTOR of full responsibility for the work hereunder.

16.2 Welding Inspection and Qualification

CONTRACTOR shall arrange for welding qualification tests at his expense at El Paso Testing Company, Inc., 2315 Myrtle Street, El Paso, Texas 79901, phone 532-3831, or other approved testing firm, in accordance with Engineering and Maintenance Instruction EP-2200. Welders shall be required to pass qualification tests before performing and operation. COMPANY reserves the right to require additional qualification tests during construction if it has any doubt about the competence of welders. COMPANY shall be allowed to witness tests and to examine test coupons. If additional tests are required and passed by welders, cost of retesting will be borne by COMPANY; if failed, cost of retesting shall be borne by CONTRACTOR.

16.3 Hydrostatic Testing

Equipment and Piping - CONTRACTOR shall perform hydrostatic tests, in accordance with Refinery Instruction No. 1501, on all equipment and lines after erection, but before any insulation or backfill, and with all welded, screwed or flanged joints exposed. Before performing any hydrostatic test, CONTRACTOR shall notify COMPANY'S Construction Representative sufficiently in advance so that all hydrostatic tests may be witnessed by a representative of COMPANY. CONTRACTOR shall provide all equipment needed for use in hydrostatic testing.

16.4 Instrument Testing

CONTRACTOR shall inspect and make all necessary tests and such additional tests as COMPANY may request to insure that instruments are installed correctly and will function properly in accordance with Specification No. EG-1586, except that:

- A. Any pressure gages that are damaged shall be returned by CONTRACTOR to COMPANY. COMPANY will repair, test and adjust such pressure gages and release them to CONTRACTOR with a tag attached to each gage identifying the gage and showing that it is in satisfactory condition.
- B. All relief valves shall be returned by CONTRACTOR to COMPANY. COMPANY will check and, if necessary, adjust relief valve settings and release the valves to CONTRACTOR with a tag attached to each valve identifying the valve, showing that it is in satisfactory condition, and noting the set pressure.

16.5 Concrete Samples

COMPANY may perform compression and slump tests on concrete. CONTRACTOR shall furnish samples taken in accordance with ASTM Specifications as may be requested for the following tests and inspections:

- A. Compression Tests: 3 cylinders from each 10 cu. yd. of structural concrete placed each day.
- B. Slump Tests: Periodic samples daily during pouring of concrete.

17.0 Bolting-Up Practice

The bolting-up of flanged joints shall be in accordance with Engineering Instruction R-800. In addition, the following procedure shall be used for spiral-wound gasketed flanged joints:

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- 17.1 A programmed bolting sequence of uniform loads, i.e., start with the flange bolt in the 12 o'clock position, then transfer successively to the 6 o'clock, 9 o'clock, 3 o'clock, etc., bolt position, increasing the bolt load uniformly each time the sequence is completed.
- 17.2 Tighten the bolts until the flanges are uniformly seated on the gasket centering ring. Lubrication of the gasketed surface is required only where necessary to obtain tight joints.

18.0 Cleaning Up

During the performance of the work, CONTRACTOR shall keep a reasonable degree of order by disposing of accumulated rubbish and waste material and, at the completion of the work, the site shall be cleared of all debris, left-over tools, consumable supplies, and material which may have accumulated in the performance of the work. Where the CONTRACTOR, after due notice, fails to keep the area of his work reasonably clean and safe, or fails to clean this area at the completion of the work, COMPANY may perform this work; the cost of such work shall be for CONTRACTOR'S account and may be deducted from the sums due or to become due CONTRACTOR.

19.0 Completion

The work will be considered "complete" when CONTRACTOR has performed all work expressly stated or implied in this Specification.

SECTION 3 - CONSTRUCTION

This Section amplifies the construction details for some portions of CONTRACTOR'S work. The provisions are generally applicable to all the facilities covered by this Specification.

20.0 GENERAL

20.1 Piping and Instrument Diagrams

Piping and Instrument Diagrams show all anticipated equipment, instrumentation, lines, line classification and sizes, as well as principal vents, drains, and steam connections.

20.2 Final Connections

If it is necessary for CONTRACTOR to make connection to any COMPANY facility already in service, CONTRACTOR shall request a date for making such connection in advance so that COMPANY Construction Representative can schedule a shutdown. No work shall be done until a Work Permit has been issued. COMPANY Inspector must be present while work is in progress.

21.0 PUMPS AND DRIVERS

21.1 CONTRACTOR will install air driven diaphragm pump in connection with air and process piping.

22.0 INSTRUMENTS

22.1 Scope of Work

CONTRACTOR shall install instruments and instrument materials in accordance with COMPANY'S Piping and Instrument Diagrams, Instrument Schedules, and other instrument drawings listed in the Construction Drawing Index. CONTRACTOR shall clean, test and inspect instruments prior to startup in accordance with Specification EG-1536.

22.2 Mounting

Installation drawings pertaining to supports and mounting are not included for bracket-mounted instruments such as pressure and temperature transmitters. Minimum requirements for these items are that they be free from vibration, located for ease of maintaining and adjusting the instrument and not create a personnel hazard. Wherever practical, the brackets should be located at the instrument centerline 4 feet above grade or operating platform.

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23.0 MECHANICAL EQUIPMENT

- 23.1 CONTRACTOR shall assemble and set mechanical equipment mount drivers, and assemble lubricating and seal oil systems, taking care to prevent contamination of equipment.

24.0 PIPING

- 24.1 All piping, except that marked "by others" as shown on the Construction Drawings shall be installed by CONTRACTOR.

A. Fabrication and installation shall be in accordance with:

- (i) This Specification.
- (ii) ANSI B31.3, Petroleum Refinery Piping Code.
- (iii) Piping Standards, Drawing.
- (iv) Specification EG-2505, Fabrication of Steel Pipe

- 24.2 Seal welding and bridge welding requirements are specified in Drawing. Bridge welds when required shall be per details 2 & 3 of Drawing CD-11057.

- 24.3 No valves shall be installed with stems pointed down.

- 24.4 "Dummy legs" shall be open ended. Welding of the dummy leg to the active line shall be made carefully to preserve wall thickness of pipe.

24.5 Isometric Drawings

COMPANY will provide dimensioned isometric drawings for lines 3/4-inch and larger shown on piping and Instrument Diagrams. Details such as vents, drains, sample connections, purge connections etc., will either be shown by separate detail drawings or by reference to standard drawings. Isometrics for small utility lines may not be fully dimensioned.

24.6 Routing to Small Lines

General routing only will be shown for small lines such as auxiliary pump piping. Exact routing for such lines shall be determined in cooperation with COMPANY'S Construction Representative before installation by CONTRACTOR.

24.7 Vents and Drains on Piping

Vents and drains required for operation are shown on the Piping and Instrument Diagrams. COMPANY will furnish detail drawings showing location of these vents and drains. However, vents and drains at all high and low points in the piping which are required for complete venting or draining for hydrostatic test may not be shown on these drawings. Any such additional vents and drains shall be installed by CONTRACTOR. All vents and drains shall be installed in accordance with Drawing EG-131335 and applicable construction drawings. Vents and drains installed for hydrostatic testing shall be plugged and seal welded upon completion of testing.

24.8 Line Cleaning

Piping shall be washed or blown clean with air to remove loose materials. This may be performed in conjunction with the hydrostatic testing.

24.9 Oily Water and Storm Water Drains

CONTRACTOR shall install oily water and storm water drains in accordance with Specification EG-582.

Each section of drain line shall be hydrostatically tested by CONTRACTOR in accordance with EG-582 before backfill and again before placement of any area paving over the lines. CONTRACTOR shall advise COMPANY Construction Representative in advance before performing any hydrostatic testing.

25.0 STEEL WORK

25.1 Pipe Supports

CONTRACTOR shall fabricate, locate, and install all required pipe supports. Supports for small lines not shown on project drawings shall be field fabricated by CONTRACTOR.

25.2 Bolts and Clips

All bolts and clips required to fasten all pipe supports to structures shall be installed even though the attachments are not shown on the construction drawings.

25.3 Welders

Field welding on steel work shall be done by welders who are qualified as specified in Section 16.2 of this Specification.

26.0 CONCRETE WORK

26.1 Scope of Work

CONTRACTOR shall provide and be responsible for all concrete work.

26.2 Methods

Placing and curing concrete shall be in accordance with Specification EG-850.

Material and fabrication of reinforcing shall conform to Specification EG-516, unless otherwise specified on the drawings.

26.3 Properties

Ready-Mix concrete shall be in accordance with ASTM Specification C-94.

In field mix concrete is used, materials to be used and the procedure to be followed in proportioning and mixing Portland Cement Concrete in the field shall conform with Specification EG-851. Consistency and workability shall be in accordance with Specification EG-851 with a minimum ultimate compressive strength of 3000 psi after 28 days of curing, maximum aggregate size 3/4-inch, slump 3 to 5 inches.

Method of measuring materials shall be such that the proportions can be accurately controlled and easily checked at any time during the work.

26.4 Anchor Bolts

All anchor bolts securing machinery or equipment, shall be provided with sleeves in accordance with Drawing GB-Q68922. After setting equipment, these sleeves shall be filled with grout. Anchor bolts shall be accurately placed and securely tied to avoid movement during concrete placement.

26.5 Special Techniques

CONTRACTOR shall consult COMPANY'S Construction Representative before using such special techniques as, for example, precasting pipeway stanchions, or pumping structural concrete.

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27.0 HYDROSTATIC TESTING

- 27.1 Equipment and Piping - ~~CONTRACTOR~~ shall perform hydrostatic tests in accordance with Instruction R-300 on all equipment and lines after erection, but before any insulation or backfill, and with all welded, screwed or flanged joints exposed. All small connections (drains, bleeders, material and sample connections, level and gage glass connections, and thermometer and pyrometer wells) shall be in place during testing and shall be subjected to the test pressure out to the first valve of the connection. Before performing any hydrostatic tests may be witnessed by COMPANY inspector. CONTRACTOR shall furnish all equipment needed for use in hydrostatic testing.

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A.1 CONSTRUCTION DRAWINGS

<u>Drawing Number</u>	<u>Title</u>
PD-36-29961 Sheet 5	Waste Asphalt to D-3612
PD-36-29961 Sheet 6	Temperature Control Manifold, D-3612
PD-36-29961 Sheet 7	Air to Pump, G-3658
PD-36-29961 Sheet 8	Steam to K-3628 and Gut Line
PD-36-29961 Sheet 9	Oily Water from K-3628
PD-36-29961 Sheet 10	Oily Water Drain from D-3612
PD-36-29961 Sheet 11	Oily Water Drain Piping at K-3628
PD-36-32159 Sheets 1,2 & 3	Drainage Ditch Steam Tracing

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A.2 STANDARD DRAWINGS

<u>Drawing Number</u>	<u>Title</u>
GP-L-1057-1	Root Valve Installation
GB-L-31335-7	Vents and Drains for Lines and Equipment

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A.3 STANDARD SPECIFICATIONS

<u>Drawing Number</u>	<u>Title</u>
EG-850-C	Placing and Curing Concrete
EG-851	Concrete Proportioning and Mixing
EG-1048-A	Small Tools and Equipment
EG-1049-C	Supplies
EG-1586-E	Instructions for Cleaning, Testing and Inspection of Instruments Prior to Initial Startup
EG-2454	Protection of Mechanical Equipment during Construction
EG-2505-H	Fabrication of Steel Piping

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A.4 REFINERY AND ENGINEERING INSTRUCTIONS

<u>Drawing Number</u>	<u>Title</u>
EP-2200	Welder Qualification
R-300	Bolting-Up Practice
1404	Instructions to Contractors Working Within the Refinery
1501	Hydrostatic Testing of Equipment

A.4 MISCELLANEOUS

<u>Drawing or Form Number</u>	<u>Title</u>
Figure 1	Shoring and Bracing of Excavations
Table I	Minimum Requirements for Trench Shoring