PLAINTIFF'S EXHIBIT

B&R-238

June 3, 1975
Appropriation 1-9149
Appropriation 58-9141
Work Request 1966-5000
Work Request 1969-5000

SPECIFICATIONS FOR CRUDE OIL PUMP SLAB ASSOCIATED WITH SOUR CRUDE SUBSTITUTION (S-2) AND BAYTOWN FUELS EXPANSION (BTFE) PROJECTS EXXON COMPANY, U.S.A. (A DIVISION OF EXXON CORPORATION) BAYTOWN, TEXAS

SCOPE OF WORK

1.1 These specifications cover the material and construction requirements for pump installation, concrete, structural steel, piping fabrication and erection, pipe dismantling, earthwork, sewer and fire water systems for crude oil Pump Slab 186 extension and related facilities.

1.2 Work shall be performed in accordance with the drawings and standards listed in the following tables:

A. Table I - List of Engineering Drawings, dated June 3, 1975.

B. Table II - List of Baytown Engineering Standards, dated June 3, 1975.

DIVISION OF WORK

2.1 The materials and services performed by Exxon shall be as specifically listed in Exhibit "A," dated June 3, 1975.

JOB INSTRUCTIONS

3.1 Construction and accounting shall be performed in accordance with the Baytown Engineering Standards (BTESs) listed in Table II.

MECHANICAL SPECIFICATIONS

4.1 Piping

Piping fabrication and installation shall be per BTES 3-19-1C, unless otherwise modified by these specifications or drawings.

4.2 Inspection

A. In addition to the visual examination required, random radiographs shall be taken to maintain piping weld quality. A minimum of five percent of welds made off Exxon's premises shall be radiographed at the expense of Contractor. Exxon will radiograph, at its expense,

approximately five percent of all welds made on its premises. However, Exxon reserves the right to and will, depending on the weld quality received, radiograph any number of additional welds at its expense. Exxon will be reimbursed by Contractor all radiographic expense for those welds that must be repaired.

B. The welds shall be radiographed 100 percent of their length.

C. All welds to be radiographed, including those taken at Contractor's expense, shall be selected and interpreted by Exxon.

4.3 Foam Pig Cleaning

All piping, two inches and larger, installed or reworked by Contractor, shall be cleaned with a soft urethane pig as follows:

A. Pig shall be run through the line after hydrostatic testing and just prior to making final tie-in.

B. Only one pass through the line with the pig is required unless Exxon's inspector observes excessive amounts of foreign material present. In such cases, additional pig cleaning shall be required.

C. Pig shall be displaced with air through the lines at a velocity of two to seven feet per second.

4.4 Painting

A. All metal surfaces which are not galvanized or insulated shall be cleaned and coated in accordance with BTES 19-1-1.1C, Code 6.

B. All fire water turret hydrants, hose reels, fire water valves, safety valves, and car-sealed block valves (marked CSO or shown in red on model) shall be cleaned and coated per BTES 19-1-1.1C, Code 2C and Note 13.

4.5 CAPS Piping Model, Sketches, and Bill of Material

A. Piping and Pumps P-10, P-11, P-12, P-13, P-14, and P-15 are shown on a scaled model of Pump Slab 186 extension, which is available for preparation of quotes. This model will be loaned to the successful bidder for construction purposes. Contractor shall maintain model in a reasonably good condition and return it to Exxon, U.S.A., after construction of Pump Slab 186 extension.

B. The CAPS pipe sketches for the model piping show only the piping two inches and larger. Smaller piping shall be installed as shown on the model.

C. The CAPS Bill of Material (attached Table V) is included for information and reference only. This CAPS Bill of Material lists piping materials shown on the CAPS sketches for pipe sizes two inches and larger.

D. The successful bidder will be furnished one set of "Cut Cards" showing the exact cutting length of each piece of pipe in the fabricated assemblies shown on the CAPS sketches. "Cut Cards" will not be provided for piping which is not shown on the CAPS sketches.

E. Instructions will be furnished on use of the CAPS sketches and "Cut Cards" when requested by Contractor during bid or construction stages.

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TABLE I

LIST OF ENGINEERING DRAWINGS

Drawing No.	Revision	Date	Title
SK-522-CTH	0	5/29/75	Dismantling and Installation, Water Drawoff Piping
SK-523-CTH	0	5/29/75	Dismantling and Installation, Water Drawoff Piping
SK-538-CTH	0	6/6/75	Pump Slab 186 Instrument Air Manifold
SK-693-E	1	5/23/75	Pump Slab 186 Electrical Conduit Plan and Details
SK-694-E	0	1/13/75	Pump Slab 186 PLA and PI Support Details
471-31-75	0	5/23/75	Pump Slab 186 Walkways and Platforms Plan
471-31-76	0	5/23/75	Pump Slab 186 Walkways and Platforms Plan
471-31-77	0	5/23/75	Pump Slab 186 Walkways and Platforms Plan
471-31-78	0	5/23/75	Pump Slab 186 Walkways and Platforms Plan
471-31-79	0	5/23/75	Pump Slab 186 Walkways and Platforms Plan
471-31-88	0	5/23/75	Pump Slab 186 Walkways and Platform Stairs
471-31-89	0	5/23/75	Pump Slab 186 Walkways and Platform Sections
471-31-90	0	5/23/75	Pump Slab 186 Walkways and Platform Sections
471-140-9	1	3/20/75	Pump Slab 186, P-10 Through P-16 Plot Plan
471-190-452	5	5/29/75	Pump Slab 185 Piping Plan and Details
471-190-517	4	6/5/75	Pump Slab 186, P-30 Through P-33 Piping Plan
471-190-522	4	5/29/75	Pump Slab 186, P-20 Through P-22 Piping Plan
417-190-537	1	5/29/75	Pump Slab 186, P-16 Piping Plan
471-197-283	0	4/29/75	CAPS Piping Sketch
471-197-284	0	4/29/75	CAPS Piping Sketch
471-197-285	0	4/29/75	CAPS Piping Sketch
471-197-286	0	4/29/75	CAPS Piping Sketch
471-197-287	0	4/29/75	CAPS Piping Sketch
471-197-288	0	4/29/75	CAPS Piping Sketch
471-197-289	0	4/29/75	CAPS Piping Sketch
471-197-290	0	4/29/75	CAPS Piping Sketch
471-197-291	0	4/29/75	CAPS Piping Sketch
471-197-292	0	4/29/75	CAPS Piping Sketch
471-197-293	0	4/29/75	CAPS Piping Sketch
471-197-294	0	4/29/75	CAPS Piping Sketch
471-197-295	0	4/29/75	CAPS Piping Sketch
471-197-296	0	4/29/75	CAPS Piping Sketch
471-197-297	0	4/29/75	CAPS Piping Sketch
471-197-298	0	4/29/75	CAPS Piping Sketch
471-197-299	0	4/29/75	CAPS Piping Sketch
471-197-300	0	4/29/75	CAPS Piping Sketch
471-197-301	0	4/29/75	CAPS Piping Sketch
471-197-302	0	4/29/75	CAPS Piping Sketch
471-197-303	0	4/29/75	CAPS Piping Sketch
471-197-304	0	4/29/75	CAPS Piping Sketch
471-197-305	0	4/29/75	CAPS Piping Sketch

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Drawing No.	Revision	Date	Title
471-197-306	0	4/29/75	CAPS Piping Sketch
471-197-307	0	4/29/75	CAPS Piping Sketch
471-197-308	0	4/29/75	CAPS Piping Sketch
471-197-309	0	4/29/75	CAPS Piping Sketch
471-197-310	0	4/29/75	CAPS Piping Sketch
471-197-311	0	4/29/75	CAPS Piping Sketch
471-197-312	0	4/29/75	CAPS Piping Sketch
471-197-313	0	4/29/75	CAPS Piping Sketch
471-197-314	0	4/29/75	CAPS Piping Sketch
471-197-315	0	4/29/75	CAPS Piping Sketch
471-197-316	0	4/29/75	CAPS Piping Sketch
471-197-317	0	4/29/75	CAPS Piping Sketch
471-197-318	0	4/29/75	CAPS Piping Sketch
471-197-319	0	4/29/75	CAPS Piping Sketch
471-197-320	0	4/29/75	CAPS Piping Sketch
471-197-321	0	4/29/75	CAPS Piping Sketch
471-197-322	0	4/29/75	CAPS Piping Sketch
471-197-323	0	4/29/75	CAPS Piping Sketch
471-197-324	0	4/29/75	CAPS Piping Sketch
471-197-325	0	4/29/75	CAPS Piping Sketch
471-221-6	2	3/20/75	Pump Slab 186 Pipe Supports Section
471-221-7	1	3/20/75	Pump Slab 186 Pipe Supports Sections and Details
471-222-14	2	3/20/75	Pump Slab 186 Pipe Supports Plan
471-261-598	1	3/20/75	Pump Slab 186, P-10 Through P-16 Foundation Plan
471-261-599	0	3/20/75	Pump Slab 186 Foundation Sections and Details
471-261-600	1	3/20/75	Pump Slab 186 Foundation Sections and Details
552-190-117	0	5/29/75	Pump Slab 186 Fire Monitor System Plan and Details
611-222-1711	0	5/6/75	Pipe Route "UR" Pipe Supports Plan and Sections and Details

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TABLE II

LIST OF BAYTOWN ENGINEERING STANDARDS

BTES No.	Revision	Date	Title
3-2-1.1C	0	6/71	Sewer Systems, Construction
3-2-1.6D	0	12/70	Industrial Sewer Manhole, Precast Concrete
3-2-1.7D	0	12/70	Industrial Sewer Manhole, Brick Construction
3-2-1.11C	0	10/70	Catch Basin, Type A
3-2-1.12D	0	12/70	Catch Basin, Type B
3-2-1.13D	0	9/70	Catch Basin, Type C
3-2-1.14D	1	8/73	Catch Basin, Type D
3-2-3.4D	2	1/73	Turret Hydrant Piping
3-2-3.6D	1	11/73	Fire Hydrant Piping
3-2-3.7D	3	9/74	Hose Reel Installation
3-2-3.9D	0	2/71	Fire Hose and Rack
3-3-2*	0	7/70	Suction and Discharge Piping for Centrifugal Pumps
3-3-9*	1	2/74	Flushing and Sealing of Mechanical Equipment
3-3-10-1D	0	7/70	Temporary Strainers for Mechanical Equipment
3-3-11*	2	3/74	Auxiliary Piping for Machinery
3-7-0.2A	1	12/73	Small Pipe Connections, Design and Erection
3-7-0.2D	0	12/70	Small Pipe Connections
3-7-0.8C	0	6/71	Pressure Taps, Construction
3-7-0.11A	1	8/73	Pipelines Removed from Service, Design
3-7-1.1D	0	6/71	Integral Pipe Supports
3-7-1.2D	0	6/71	Pipe Anchors and Guides
3-15-1.1C	1	6/71	Pressure Relief Valves, Installation
3-16-50.1D	0	6/71	Piping Blanks and Spacers
3-18-1B	1	9/73	Fabricated Piping, Purchase
3-19-1C	1	12/73	Fabricated Piping, Erection
3-19-51.1C	0	5/71	Cleaning of Machinery Piping, Construction
3-51-1.1B	2	6/74	Pipe and Pipe Nipples, Purchase Descriptions
3-51-3.1B	0	7/71	Pipe Fittings, Purchase Descriptions
3-51-4-1B	0	6/71	Pipe Unions, Purchase Descriptions

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TABLE II (CONTINUED)

BTES No.	Revision	Date	Title
3-51-5.1B	1	2/72	Pipe Flanges, Purchase Descriptions
3-51-6.1B	1	2/73	Gaskets, Purchase Descriptions
3-51-7.1B	0	1/71	Flange Bolting, Purchase Descriptions
3-51-21.1B	0	6/71	Valve Accessories, Purchase Descriptions
3-51-22.1B	5	9/74	Gate Valves, Purchase Descriptions
3-51-23.1B	2	7/72	Globe Valves, Purchase Descriptions
3-51-24.1B	1	2/72	Check Valves, Purchase Descriptions
3-51-25.1B	1	2/72	Plug and Ball Valves, Purchase Descriptions
3-51-26.1B	1	2/72	Butterfly Valves, Purchase Descriptions
3-51-41.1B	0	6/71	Tubing, Purchase Descriptions
3-51-42.1B	1	1/72	Tubing Fittings, Purchase Descriptions
3-51-43.1B	1	2/72	Instrument Valves, Purchase Descriptions
3-52-1.05C	2	5/72	Piping Materials, Class 125A-5
3-52-1.18C	1	2/72	Piping Materials, Class 150A-8
3-52-1.31C	1	2/72	Piping Materials, Class 300A-1
4-2-0.1B	2	3/74	Fabricated Structural Steel, Purchase
4-2-0.1C	3	3/74	Fabricated Structural Steel, Erection
4-2-1A	2	3/74	Auxiliary Structures, Design
4-2-2.3D	0	6/71	Pipe Hangers, Fabrication
4-6-1.1C	1	6/74	Reinforced Concrete Structures, Construction
4-6-1.2B	0	11/70	Concrete, Purchase
4-6-1.3D	0	5/70	Anchor Bolts, Fabrication
4-6-1.4B	1	10/71	Fabricated Reinforcing Steel, Purchase
4-6-1.11C	0	4/71	Epoxy Grouting, Application
4-6-1.12C	0	5/71	Concrete Grouting, Application
4-6-51.1D	0	3/71	Drilled Pipe Support Foundations
4-6-51.2D	1	8/73	Sleeve-Drilled Pipe Support Foundations
4-6-51.5D	0	3/71	Hand-Dug Pipe Support Foundations
4-6-52.1D	0	3/71	Switch Rack Foundations
4-6-54.1A	1	6/74	Area Paving, Design
4-6-57.1A	1	2/74	Pump Slabs and Foundations, Design
4-9-1.2C	0	5/71	Excavation, Backfilling, and Grading, Construction
4-9-1.4B	0	4/71	Fill Clay and Aggregates, Purchase Description
4-9-1.6C	0	5/71	Earthen Dikes, Construction
4-61-1.1C	0	4/71	Cement Concrete Roads, Construction
10-1-50.1C	0	12/70	Centrifugal and Rotary Pumps, Installation
16-2-50.3D	0	3/71	Pushbutton Station

TABLE II(CONTINUED)

BTES No.	Revision	Date	Title
16-13-1	1	3/71	Field Installation and Testing of Electrical Equipment
18-50-1.1B	0	2/73	Metallic Materials Marking, Purchase
19-1-1.1C	3	12/73	Protective Coatings, Application
19-1-1.2B	0	6/70	Inorganic Zinc Prime Coat, Purchase
19-1-1.6B	0	5/70	Galvanized Coatings, Purchase
19-1-1.7B	0	8/70	Wrapped Coatings, Purchase
19-1-1.7C	0	8/70	Wrapped Coatings, Application
50-5-1.1C	2	9/74	Construction Requirements, Instructions
50-5-5.1C	0	2/70	Field Welding Qualifications, Instructions
50-6-5.1D	1	1/73	Invoicing for Lump-Sum Contracts, Instructions

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