

FLUOR ENGINEERS AND CONSTRUCTORS, INC.
ENGINEERING SPECIFICATIONS

PLAINTIFF'S
EXHIBIT
CEL-911J

Champlin Petroleum Company
High Sulfur Crude Facilities
Corpus Christi, Texas
Fluor Contract 647820

Specification No. SP-647820-50-10
By CEF Date 10/8/73 Checked WJD
Rev. 4 Date 9/17/75
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APPROVED FOR
CONSTRUCTION

PURCHASE SPECIFICATION - VALVES - continued

3.4 Unless otherwise specified in the ITEM DESCRIPTION, gate and globe valve stem packing shall conform to the following:

3.4.1 Bronze and Cast Iron Valves per manufacturer's standard.

3.4.2 Steel and Alloy Valves - Wire inserted, graphited braided asbestos packing suitable for 1200°F steam or petroleum services. It shall contain a corrosion inhibitor. John Crane #187-I or Fluor approved substitute.

3.4.3 Stainless Steel Valves

a. Type 304 Stainless Steel Valves shall have packing suitable for 800°F operating temperature.

b. Type 316 and Type 347 Stainless Steel Valves shall have packing suitable for 1000°F operating temperature.

3.4.4 The Vendor shall be prepared to furnish, upon request, packing gland dimensions and the number and size of packing rings required for each type and size of valve shown on the Purchase Order.

3.5 Metallic and non-metallic bonnet gaskets shall have corrosion resistance and temperature rating equal, at least, to that of the body and bonnet materials. Teflon gaskets shall not be furnished unless called for in the Item Description.

3.6 Bonnet gaskets shall be suitable for the following temperatures:

3.6.1	Compressed asbestos	- -50°F to +750°F
3.6.2	Solid metal	- same as body & bonnet
3.6.3	Spiral-wound metal w/filler	- same as body & bonnet
3.6.4	Teflon, or Teflon-based	- 325°F to +425°F

3.7 Where valves are specified "No copper permitted" this shall be understood to mean that no copper (except trace elements) or copper-bearing alloy materials shall be used in the construction of these valves. This includes internal and external parts such as trim, backseat, yoke bushings and gland followers.

EXCEPTIONS: Alloy 20, Monel, 17-4PH & 17-7PH when specified.

SHEET 1

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