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TECHNICAL JOB
SPECIFICATION

510/4

REVISION 0

DATE 05/04/2011

HIGH PRESSURE (HP) TRANSMISSION SYSTEMS

VALVES DN<50

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QUALITY ASSURANCE PAGE

CHANGES LOG

REVISIONS LOG

0	05-04-2011	FIRST ISSUE	PQ DPT	VG
Rev. No	Rev. Date	REASON FOR CHANGE	Made By	Approved By

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REFERENCE DOCUMENTS

European Community Directive 97/23/EC “of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States Concerning pressure equipment” (PED)

Job Spec. No. 970/2

[Shop Inspection of Equipment and Materials for NGT project]

ELOT EN 1503-1

[Valves - Materials for bodies, bonnets and covers - Part 1: Steels specified in European standards]

ELOT EN 1594

[Gas supply systems - Pipelines for maximum operating pressure over 16 bar - Functional requirements]

ELOT EN 13942 (ISO 14313 modified)

[Petroleum and natural gas industries - Pipeline transportation systems - Pipeline valves]

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SCOPE**1.0 ITEM**

Valves DN < 50

1.2 SERVICE

Sweet, natural gas with sporadic passage of water and glycol.

1.3 APPLICATION

Shut-off/Throttling/Drain.

1.4 PRESSURE RATING

Minimum Class PN 100 bar or as stated in the data sheet.

1.5 ADDITIONAL INFORMATION

Additional information may be given in the Material Requisition or data sheet and these documents should be read in conjunction with this Job Specification herein.

Valve Manufacturer shall be responsible to design valves and their components in accordance with requirements of applicable documents. In no event however, are dimensions, thickness etc. to be less than those shown on drawings, unless specific written approval to the contrary is received from Owner.

Any conflict between requirements of this general specification and drawings, Data Sheets and Material Requisition, shall be referred to Owner for clarification before proceeding with fabrication of the affected part.

2.0 GENERAL REQUIREMENTS**2.1 ACCEPTANCE CRITERIA**

Valves shall with respect to standards, design, materials, testing and marking, satisfy the requirements stated in **ELOT EN 1594** for Gas Infrastructure Systems, latest Edition available up to the date of fabrication.

2.2 UNITS

Metric for all units.

2.3 MANUFACTURE/TYPE

Manufacture/valve types will be acceptable provided that the specified documentation is available and the specified requirements are fulfilled, upon request.

2.4 MATERIALS

Valve bodies shall be manufactured of material listed as acceptable in the following European valve standards such as **ELOT EN 13942** (ISO 14313 modified) and **ELOT EN 1503-1**. For Throttling/Drain/ Vent purposes valve material shall be suitable for operation of -45°C.

2.5 DESIGN, MANUFACTURE, TESTING

In accordance with the requirements of **ELOT EN 13942** (ISO 14313 modified).

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2.6 MARKING

Valves specifically designed for pipelines shall bear the CE Mark if they fall under the EC Directive (P.E.D.) No. 97/23/EC.

Valves shall be marked as required by **EU Directive 97/23/EC**, i.e. they shall bear CE mark, Manufacturer's trade mark, Owner's contract number, maximum operating pressure (in bar), Test pressure (in bar), Type number, manufacturing number, etc.

2.7 TAGGING

All valves shall be tagged with the valve number (Commodity Code) as stated on the data sheet and be prefixed by the valve nominal size. This shall be clearly stamped on a non-corrodible metal tag which is to be securely attached to the valve with a non-corrodible metal wire.

3.0 TECHNICAL DOCUMENTATION

3.1 QUANTITY

- Four copies of each, inclusive of original, for all documents and certificates.
- Four copies, of each inclusive of one reproducible, for all drawings.

Also electronic files of all Documents and Certificates must be submitted by Contractor to the Owner.

3.2 DOCUMENT REQUIREMENTS

3.2.1 WITH TENDER

Standard dimensional drawing of each type, with statement of materials used and valve standard which provides basis for design, manufacture and testing.

Any relevant literature regarding installation, operation and maintenance.

Documentation, including pressure/burst test results, proving the acceptance of the valve types by an Independent Accredited Inspection Body or a Notified Body, as applicable.

3.2.2 ON DELIVERY

Comprehensive operation, maintenance and reconditioning manuals.

List of recommended tools, spare parts, lubricants etc., necessary for two years operation.

3.3 VALVE CERTIFICATION PACKAGE.

Valve drawings shall include the following information printed clearly in or adjacent to the title block:

- a. Contract No.
- b. Requisition No. and item No.
- c. Purchase Order No.
- d. Valve number (Commodity Code)
- e. The principle dimensions of the valve, any gear operator, the size, type, and style.

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Also the weight of the valve, per size, should be included.

- f. Materials of construction.
- g. Pressure-Temperature limitations.

Drawings shall be checked and certified by the Manufacturer as being an actual record of the valve being supplied against the Purchase Order.

Drawings shall be sent to Owner accompanied by a transmittal note or letter, marked for attention Procurement Department.

Approval of Manufacturer's drawings shall not be considered as relieving the Manufacturer of any responsibility for detailed design, dimensions and construction of equipment or deviation from specification.

Manufacturer shall not commence final manufacture of valves until receipt Owner's approval of his drawings.

4.0 INSPECTION AND CERTIFICATION

Inspection requirements are defined in the following documents:

- a) **EU Directive 97/23/EC**, if applicable.
- b) Material requisition.
- c) Job Specification **970/2** "Shop inspection of equipment and material for NGT project".
- d) Relevant project specifications.
- e) Inspection clauses of applicable Standards.

Inspection procedures to be followed are detailed in Client's document "Inspection and Test Instructions".

5.0 SHIPMENT

Valves shall be completely equipped with all external/ internal (if any) attachments before shipment, unless otherwise specified on the drawings.

Manufacturer has to avoid destruction and damage during transportation and erection.

All exposed machined surfaces shall be coated with rust preventive. All ends (flanges, weldings etc.) shall be protected with plastic covers and the threaded connections shall be plugged.