



**HELLENIC GAS
TRANSMISSION
SYSTEM OPERATOR**

357-359, MESSOGION AVE.,
15231 ATHENS, GREECE
Tel.: 210 6501258
Fax : 210 6501551

**TECHNICAL JOB
SPECIFICATION**

610/1

REVISION 0

DATE 05/04/2011

HIGH PRESSURE (HP) TRANSMISSION SYSTEMS

GENERAL INSTRUMENTATION

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 2/16

QUALITY ASSURANCE PAGE

CHANGES LOG

REVISIONS LOG

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

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 3/16

CONTENTS

REFERENCE DOCUMENTS

- 1.0 SCOPE**
- 2.0 GENERAL REQUIREMENTS**
- 3.0 DESIGN REQUIREMENTS**
- 4.0 SPECIFIC INSTRUMENT REQUIREMENTS**
- 5.0 INSPECTION AND CERTIFICATION**
- 6.0 COMPLIANCE WITH THE EU DIRECTIVES**

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 4/16

REFERENCE DOCUMENTS

- Job Spec. No. 610/2
[Instrumentation Symbols and Identification]
- Job Spec. No. 970/2
[Shop inspection of Equipment and Materials for NGT Project]
- EU Directive 2006/95/EC LVD
[Low Voltage Directive]
- 94/9/EC ATEX
[Equipment Explosive Atmospheres Directive]
- 2004/108/EC EMC
[Electromagnetic Compatibility Directive]
- 97/23/EC PED
[Pressure Equipment Directive]
- 2004/22/EC MID
[Measuring Instruments Directive]
- ELOT EN 837-1
[Pressure gauges - Part 1: Bourdon tube pressure gauges;
dimensions, metrology, requirements and testing]
- ELOT EN 10272
[Stainless steel bars for pressure purposes]
- ELOT EN 50073
[Guide for the selection, installation, use and maintenance of
apparatus for the detection and measurement of combustible gases
or oxygen]
- ELOT EN 50170
[General purpose field communication system]
- ELOT EN 60068
[Environmental testing]
- ELOT EN 60079-0
[Electrical apparatus for explosive gas atmospheres - Part 0: General
requirements]
- ELOT EN 60079-1
[Explosive atmospheres - Part 1: Equipment protection by flameproof
enclosures "d"]
- ELOT EN 60079-11
[Explosive atmospheres - Part 11: Equipment protection by intrinsic
safety "i"]
- ELOT EN 60079-14
[Electrical apparatus for explosive gas atmospheres - Part 14:
Electrical installations in hazardous areas (other than mines)]
- ELOT EN 60529
[Degrees of protection provided by enclosures (IP code)]

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 5/16

ELOT EN 60751

[Industrial platinum resistance thermometer sensors]

ELOT EN 61000 series

[Electromagnetic compatibility (EMC)]

ELOT EN 61010-1

[Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements]

ELOT EN 61158

[Industrial communication networks - Fieldbus specifications]

ELOT EN 61508

[Functional safety of electrical/electronic/programmable electronic safety-related systems]

ELOT EN 61779

[Helical-scan digital composite video cassette recording system using 19 mm magnetic tape, format D2 (NTSC, PAL, PAL-M)]

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 6/16

1.0 SCOPE

Instruments and controls are to be furnished in accordance with this Job Specification for pipeline, (including metering and regulating stations), as indicated on the Engineering Flow Diagrams and fulfilling Licensor's requirements as applicable.

Any conflict that may be encountered in applying the different technical documents shall be brought to Owner attention for the relevant clarification.

Unless otherwise specified, the following descending order of precedence among documents shall apply:

- a. EU DIRECTIVES
- b. Material Requisition
- c. Project Specifications (including Licensor's specifications) attached to the Material Requisition itself.
- d. National Greek Codes, Standards, Regulations and Instructions.
- e. European Standards as appropriate.

2.0 GENERAL

2.1 FLOW DIAGRAM SYMBOLS AND INSTRUMENT IDENTIFICATION

Flow diagram symbols and identification (tag numbers) for instruments and controls shall be basically in accordance with **Job Specification No. 610/2**.

2.2 PACKAGE UNITS

- a. The instrumentation requirements, when packaged or licensed units are specified, shall conform to this specification wherever possible.
- b. Local control panels for package boilers, compressors, process heaters, or other units requiring such panels, shall preferably be furnished by the equipment Manufacturer/Vendor.

The panels with the instrumentation therein and the equipment which has to be controlled shall be tested as a unit, wherever possible.

2.3 UNITS

Metric. Pressure shall be expressed as gauge pressure.

2.4 LEGISLATION AND STANDARDS

- EU Directives
- Relevant Standards

3.0 DESIGN REQUIREMENTS

3.1 GENERAL

All instrumentation shall be insensitive to shock or vibration effects normally encountered in pipeline installations.

3.1.1 TAGGING

An identification tag shall be attached to each piece of instrumentation equipment. The tags shall be of sturdy, stainless steel or other equally weather resistant material, permanently fastened to the piece of instrumentation equipment with

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 7/16

stainless steel screws or pins.

3.1.2 PAINING

Manufacturer's standard colors shall be used for all project instrumentation, including visible portions of instruments mounted on the control panel, unless otherwise specified.

3.1.3 ELECTRICAL EQUIPMENT AND ENCLOSURES

Field mounted or local panel mounted instrumentation, shall be suitable for use in a hazardous area and in accordance with its classification study. Outdoor installations of electronic instruments shall require a minimum mechanical protection of the order of IP 65.

As far as the electrical protection in hazardous areas is concerned, the applicable norm shall be the **EU Directive 94/9/EC ATEX**. Reference is also made to **ELOT EN 60079-0, ELOT EN 60079-1, and ELOT EN 60079-11**.

Indoor control panels shall have a minimum mechanical protection of IP-52. Electronic instruments installed inside control panels shall have a minimum mechanical protection of IP-20. Indoor installations of electronic instruments, but not inside control panels, shall require a minimum mechanical protection IP-54.

3.1.4 TRANSMITTERS

- a. In general, transmitters shall be of the "SMART" type. Pressure transmitters, in particular, shall be of the force balance type or other negligible displacement type (i.e. capacitive or piezoresistive), except where such devices are not available for a specific measurement.
- b. Analog electronic signal transmission range shall be 4-20mA. Other than this range require Owner's Engineer approval.
- c. Process variable indication shall be provided for each transmitter installed for control purpose and local controller. This indication shall be either direct reading, or the transmitter output in terms of the process variable.
- d. Transmitters shall comply with **EU Directives** as follows:
 - **EU Directive 94/9/EC ATEX**
 - **EU Directive 97/23/EC PED**
 - **EU Directive 2004/108/EC EMC**

Thus transmitters shall comply with the European standards e.g. **ELOT EN 61508, ELOT EN 60079-0, ELOT EN 60079-1, ELOT EN 60079-11, ELOT EN 60079-14, ELOT EN 60529, ELOT EN 61000 series**.

3.1.5 TRANSMISSION SYSTEM

No process fluids of any type shall be piped into the control room. Transmission of the process variable shall be by means of electronic or electric type instruments. Pneumatic type instrumentation and signals may be used where dictated by the specific application requirements.

Transmission system shall comply with European Standards **ELOT EN 50170** and **ELOT EN 61158**.

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 8/16

4.0 SPECIFIC INSTRUMENT REQUIREMENTS

4.1 TEMPERATURE INDICATORS (THERMOMETERS)

Thermometers shall be of the industrial bimetallic or mercury in steel or high pressure nitrogen dial type suitable for thermo well mounting.

4.1.1 GENERAL

Thermometers directly mounted in thermo wells shall be fitted with an adjustable nipple for positioning.

Thermometers with remote indication shall be temperature compensated, and generally be insensitive to changes in the ambient temperature.

Thermometers shall have minimal response time and 1% repeatability. Pointers shall be adjustable.

4.1.2 HOUSINGS

Thermometer housings shall be waterproof and corrosion resistant and of a stainless steel construction. Dial nominal diameter to be 150 mm.

4.1.3 TESTING AND CERTIFICATION

All thermometers shall be function tested by the manufacturer and issued with a test certificate.

Certificates for thermometers with high accuracy shall include a calibration curve with traceability maintained via the thermometer serial number.

4.2 TEMPERATURE SWITCHES

Temperature switches for remote control or alarm purposes shall be conventional vapour filled or liquid expansion type.

The switches shall be part of intrinsically safe circuits. Temperature switches shall comply with **EU Directive 94/9/EC ATEX**.

Gold plated and/or sealed contacts shall be used.

The temperature switches shall be generally insensitive to changes in the surrounding ambient temperature.

Temperature switches shall have response time less than 1 second and 1% repeatability.

4.2.1 REMOTE CONTROL OR ALARM SETPOINTS

The setpoints shall be adjustable over the entire temperature scale range specified.

Fixed switching differential shall be used.

4.2.2 TESTING AND CERTIFICATION

All temperature switches shall be function tested by the Manufacturer and issued with a test certificate.

4.3 TEMPERATURE TRANSMITTERS

The use of the "smart type" temperature transmitters is preferable.

Output shall be 4 to 20 mA directly proportional to the temperature.

Process variable indication for transmitter shall be as per **3.1.4c**, unless otherwise

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 9/16

specified.

Temperature transmitters shall be intrinsically safe.

Temperature transmitters shall comply with **EU Directives** as follows:

- **EU Directive 94/9/EC ATEX**
- **EU Directive 2004/108/EC EMC**

They shall comply with European Standards **ELOT EN 60079-14** and **ELOT EN 61010-1**.

All temperature transmitters shall be function tested by the Manufacturer and issued with a test certificate inclusive of a calibration curve for the required span.

4.4 TEMPERATURE SENSORS

Temperature sensing elements shall be Resistance Temperature Detectors (RTD's) of the type Pt 100 for insertion in thermowells and shall be according to **ELOT EN 60751** standard. Thermocouples may be used only where dictated by the specific application requirements.

The elements shall be part of intrinsically safe circuits.

Temperature sensors shall comply with **EU Directives** as follows:

- **EU Directive 94/9/EC ATEX**
- **EU Directive 2004/22/EC MID**

The RTD shall be connected to a resistance temperature converter by a 3-wire or 4-wire cable (4-wire configurations are preferable) making lead resistance adjustment unnecessary. The supply will be a constant d.c. voltage and the output shall be a 4-20 mA measuring current.

4.4.1 EARTH TERMINAL

Required on resistance temperature converter.

4.4.2 TESTING AND CERTIFICATION

All temperature sensing elements shall be function tested by the Manufacturer and issued with a test certificate.

4.5 TEMPERATURE AND PRESSURE RECORDERS

Combined (dual channel Temperature and Pressure) mechanical strip recorders suitable for local mounting with "clockwork" spring constant speed chart drive shall be used for the M/R Stations.

Separate recording for each variable (temperature, pressure and differential pressure) by circular DN 300 chart recorders shall be used for the boarder measuring station. These recorders shall be suitable for local mounting with "clockwork" spring constant speed drive.

As an alternative to the separate three circular recorders a combined three pen circular chart recorder may be used provided that the observed accuracies are the same.

Also electrical (battery) driven charts may be substituted for the above recorders provided they are certified officially for Intrinsically Safe operation in hazardous areas.

4.5.1 TEMPERATURE SENSORS

The temperature sensors shall be of the mercury in steel (stainless) or high

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 10/16

pressure nitrogen flexible capillary tube type, suitable for mounting in a thermowell.

The sensor shall be temperature compensated and generally insensitive to changes in the surrounding ambient temperature.

Response time shall be 50% of span in less than 5 seconds.

Permissible operating temperature range shall be as specified.

4.5.2 TEMPERATURE RECORDER

The temperature recorder shall have a measured accuracy better than $\pm 0.25\%$ of full scale.

4.5.3 PRESSURE MEASURING UNIT

Measuring element shall be hardened X2CrNiMo17-12-2 (**ELOT EN 10272**), unless process fluid requires the use of other materials.

The pressure measuring unit shall be suitable for operating within the specified range with a permissible overload in excess of 30% of specified range.

4.5.4 PRESSURE RECORDER

The pressure recorder shall have a measured accuracy better than 0.25% of full scale.

4.5.5 DIFFERENTIAL PRESSURE RECORDER

The differential pressure recorder shall have a measured accuracy better than 0.25% of full scale.

If option is available a mechanical flow integrator may be incorporated.

4.5.6 CHART WINDING CAPACITY

One (1) month minimum with a chart speed at 20 mm per hour for the strip chart recorders.

One (1) revolution per 24 hours for the circular chart recorders.

4.5.7 CHART WIDTH

100 mm minimum for the strip chart recorders DN 300, circular.

4.5.8 CHART SPEED

Adjustable between 5mm and 30mm per hour for the strip chart recorders.

4.5.9 INK RESERVOIR CAPACITY

Sufficient for one month continuous operation for the strip chart recorders less for the circular chart recorders.

4.5.10 TESTING AND CERTIFICATION

Each recorder shall be tested and calibrated by the Manufacturer and issued with a test certificate.

Traceability between the test certificate and recorders shall be maintained via the recorder serial number.

4.6 **PRESSURE AND DIFFERENTIAL PRESSURE INDICATORS (PRESSURE GAUGES)**

Pressure gauges shall comply with **EU Directives** as follows:

- **EU Directive 94/9/EC ATEX**

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 11/16

- **EU Directive 97/23/EC PED**
- **EU Directive 2004/22/EC MID**

Pressure gauges shall comply with the requirements of **ELOT EN 837-1** and **ELOT EN 60529**.

4.6.1 GENERAL

Locally mounted pressure gauges shall be 160 mm nominal diameter. They shall use Bourdon tube (other types element may be used where Bourdon tube gauges are not applicable subject to Owner's Engineer approval) with "solid front" cases and blow-out backs or discs.

The pressure element shall be X2CrNiMo17-12-2 (**ELOT EN 10272**) stainless steel as a minimum.

Very low range gauges (draft gauges, absolute pressure gauges, etc.) for which X2CrNiMo17-12-2 (**ELOT EN 10272**) stainless steel is not available may utilize elements of other material (or type), if such material is compatible with the process fluid requirements.

Standard gauge connection size shall be 1/2" NPT.

Pressure Gauges shall be capable of withstanding a constant overload in excess of 10% of its range without effect to its accuracy, and an occasional overload of 30% of its range without bursting.

Differential pressure instruments shall withstand differential pressure equal to full line pressure without zero or calibration changes.

Pressure gauges shall have an accuracy class 1.

4.6.2 TYPE TEST

All pressure gauges shall have a type test approval certificate issued by a Notified Body.

4.6.3 TESTING AND CERTIFICATION

All pressure gauges shall be function tested by the Manufacturer and issued with a test certificate.

4.7 **PRESSURE AND DIFFERENTIAL PRESSURE SWITCHES**

Pressure and Differential Pressure Switches for remote control or alarm purposes shall be no touch inductive proximity switches.

Differential pressure instruments shall withstand differential pressure equal to full line pressure without zero or calibration changes.

The switches shall be part of an intrinsically safe circuit.

Pressure and differential pressure switches shall comply with **EU Directives** as follows:

- **EU Directive 94/9/EC ATEX**
- **EU Directive 97/23/EC PED**

4.7.1 REMOTE CONTROL OR ALARM SET POINTS

The set points shall be adjustable over the entire scale range specified. Fixed switching differential shall be used. Switching accuracy should be less than 0.5%. Switching hysteresis should be less than 1%.

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 12/16

4.7.2 Testing and Certification

All pressure and differential pressure switches shall be function tested by the Manufacturer and issued with a test certificate.

4.8 **ELECTRONIC PRESSURE / DIFFERENTIAL PRESSURE TRANSMITTERS**

"Smart" type transmitters shall be used.

Transmitters shall be loop powered via 2-wire cables of an intrinsically safe circuit.

Analogue type output signal shall be 4-20mA directly proportional to the pressure/differential pressure.

Differential pressure transmitters shall withstand differential pressure equal to full line pressure without zero or calibration changes.

Process variable indication for transmitter shall be as per 3.1.4c unless otherwise specified.

Electronic pressure / differential pressure transmitters shall comply to **EU Directives** as follows:

- **EU Directive 94/9/EC ATEX**
- **EU Directive 97/23/EC PED**
- **EU Directive 2004/22/EC MID**
- **EU Directive 2006/95/EC LVD**

4.8.1 PRESSURE SENSOR

The sensor shall be separated from the process by a diaphragm with the pressure transmission between the diaphragm and sensor provided by silicone oil.

The sensor may be of the semi-conductor, strain gauge or capacitor type.

4.8.2 SPAN

Adjustable between 20 and 100% of the maximum scale range.

4.8.3 ZERO

Adjustable between - 20 and + 80% of the maximum span.

4.8.4 LOAD

Approximately 500 ohm at 24 volts d.c.

4.8.5 ACCURACY

Pressure transmitters: $\pm 0.1\%$ of span or better.

Differential pressure transmitter: $\pm 0.1\%$ of span or better.

4.8.6 TEST AND CERTIFICATION

All transmitters shall be function tested by the Manufacturer and issued with a test certificate inclusive of a calibration curve for the required span.

Traceability between the certificate and the transmitter shall be maintained via the transmitter's serial number.

4.9 **LIQUID LEVEL SWITCHES**

Capacitance type liquid level alarm sensors.

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 13/16

4.9.1 GENERAL

Sensors shall have an accuracy better than + 20 mm of the actual liquid level.

Sensors to be mounted in outdoor locations shall be equipped with overvoltage protection.

Liquid level switches shall comply with **EU Directives** as follows:

- **EU Directive 94/9/EC ATEX**
- **EU Directive 2006/95/EC LVD**

Liquid level switches shall comply with the requirements of **ELOT EN 60068** and **ELOT EN 60529**.

4.9.2 SUPPLY AND SIGNAL

Power Supply and return alarm input signal shall be via a 2-wire cable.
The signal circuit shall be intrinsically safe.

4.9.3 EARTH TERMINAL
Required.

4.9.4 TESTING AND CERTIFICATION

The liquid level alarm shall be function tested by the manufacturer and issued with a test certificate.

4.10 GAS DETECTION AND ALARM SYSTEM

Complete system designed, installed, tested and approved as specified, and to the extent required, by the Authorities, **EU Directive 94/9/EC ATEX**, this specification and the requirements of **ELOT EN 50073** and **ELOT EN 61779**.

The configuration in principle is shown on this specification, unless it is specified in a different way in the relevant process and instrumentation diagrams.

4.10.1 SUPPLY AND SIGNAL LEVELS
Power supply shall be 24 VDC.

The signal circuit shall be analog (4-20mA) and preferably intrinsically safe.

4.10.2 SYSTEM RANGE. SPAN AND ACCURACY

The whole system shall be operable over the range of 0-100% LEL at an accuracy to within + 2% of the operable range.

(LEL being approximately 5% volume in air for methane at 25°C and atmospheric pressure).

4.10.3 GAS DETECTORS

Gas detectors shall be of the type based on the catalytic combustion principle, with two elements (one sensing and one as reference) suitable for detecting explosive gases below the LEL (Lower Explosive Limit).

All gas detectors shall be fitted with a collecting cone to allow sensing at a very low % LEL (3-10% of LEL).

The gas detectors shall not be poisoned by gas concentrations over the LEL.

Detectors shall be of a 2-wire cable, 4-20 mA output transmitter type, and suitable for use in the hazardous area, according to its classification study.

Detectors and associated equipment shall be free from any maintenance

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 14/16

requirements (recalibration, checks etc) for at least a period of one year after each calibration.

4.10.4 NUMBER OF DETECTORS

Final number and positioning of the detectors shall be Contractor's responsibility and shall be decided during detail engineering and according to room and process layout. The guidelines for installation given in **ELOT EN 50073** shall be considered.

As a minimum the following rules shall apply:

- One (1) detector per 25 m² of the same room plus one additional detector per room.
- No less than two (2) detectors shall be installed in any room.
- Detectors shall be installed only in indoor areas.

4.10.5 GAS WARNING LIGHTS AND AUDIBLE ALARMS

On each external side of the building "yellow" gas warning flashing lights shall be positioned in a conspicuous way, but not visible from outside the fence perimeter.

Within a process, odorizer, analyzer and boiler room(s) "yellow" gas warning flashing lights, together with audible alarms shall be installed.

The audible alarms shall have a sound-level higher than the surrounding environmental noise. In a case of a process room shall be a min of 90 dBA.

4.10.6 GAS SYSTEM CONTROL EQUIPMENT

Two level detection modules for each gas detector inclusive of:

- Lamps for fault, alarm high and alarm high-high.
- Setpoint controls for alarm high and alarm high-high.
- Calibration facilities.
- Test alarm facilities.
- Reset pushbutton.
- Alarm relays for remote alarm, with potential-free SPOT contacts and necessary terminals, 24 V DC, 1 A. Relays normally energized.

On a single system failure there shall be no loss of more than one (1) detector signal.

Logic and signal repetition shall be designed as fail-safe.

The modules shall be suitable for mounting in a standard 50 cm rack within the station control panel, and have a minimum enclosure protection to IP 20.

4.10.7 TESTING

4.10.7.1 GENERAL PROCEDURE FOR ADJUSTING THE GAS DETECTION SYSTEM

Zero adjustment shall be executed in the detection module in the Station Control Panel (SCP).

Indicative alarm limits AAH=15% and AAHH=40% shall be set in the detection module in the SCP.

Disconnect protection cap on the detector.

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 15/16

Test gas 40% shall be applied to the detector by a flowrate of 1,7 l/min.

40% adjustment shall be executed in the detection module.

Test gas 15% shall be applied to the detector by a flowrate of 1,7 l/min.

Alarm indication in the SCP and the Gas Control Center (GCC) shall be controlled.

The visual warning flashing lights together with audible alarm's shall be controlled.

Timing function for automatically reset of audible alarms shall be controlled.

Test gas 40% shall be applied to the detector by a flowrate of 1,7 l/min.

Alarm indication in the SCP and the GCC shall be controlled.

Reactivation of the visual warning flashing lights together with audible alarms shall be controlled.

Automatically reset of audible alarms shall be controlled.

Test gas shall be removed from the detector.

After blow-off of the detector reconnect protection cap.

It shall be verified that the alarm indication in the SCP and GCC not disappears until the alarm is reset in SCP.

It shall be verified that the visual warning flashing lights are de-energized and the alarm indication in the GCC disappears.

Similar procedure (but with different settings) shall apply for the odorant detectors.

4.10.8 GAS DETECTORS (FOR ODORANT GAS)

Another detection method is required to detect propable leakage of the odorant gas in the atmosphere.

The odorant gas is tetrahydrothiophane (THT) C₄H₈S and a concentration of less than 15 parts per million of volume is desired to be readily detectable.

One odorant detector is to be installed in each odorization room and shall be part of the station flammable gases detection system.

The detection principle shall be based in one of the following methods: electrochemical cell-type, semiconductor (metal oxide) or infrared absorption method, depending also on the environmental conditions, (e.g. extreme levels of humidity), which may affect the lifetime of certain type of sensors (e.g. semiconductor type).

Alarm thresholds shall be those of LTEL or TLV.

In general any odorant detection system shall have a malfunction alarm and be free from any maintenance requirements (recalibration, checks e.t.c.) for at least a period one year after each calibration.

Contractor shall advise Client of type, model and manufacturer of the odorant gas detector to be installed prior to any commitments.

5.0 INSPECTION AND CERTIFICATION

Inspection will be performed by a third party independent inspection company to be appointed by the client.

Inspection requirements are defined in the following documents.

Job Spec. No 610/1
Revision 0
Date 05-04-2011
Page 16/16

- a. Material Requisition.
- b. **Job Specification 970/2.**
- c. Relevant project specifications.
- d. Inspection clauses of applicable codes.

Inspection procedures to be followed are detailed in Owner document "Inspections and Test Instructions for NGT Project".

6.0 COMPLIANCE WITH THE EU DIRECTIVES

Instrumentation that complies with the "New Approach" directives shall be provided with:

- a. A physical CE marking and other information as required by the relevant directives.
- b. A declaration of conformity which lists all the directives with which the product complies.
- c. Any other information specified by the directive, e.g. user instructions.