Grupa LOTOS S.A.	**TECHNICAL SPECIFICATION**	Spec. No.
	General requirements for equipment subject to UDT/TDT/ZDT approval	8100

Contents

1 Subject of specification 2
2 Scope of validity 2
2.1 Deviations 2
2.2 Order of Precedence 2
3 Definitions and designation 2
4 Types of technical inspection 3
4.1 Conformity assessment by NB 3
4.2 UDT inspection 3
4.3 TDT inspection 3
4.4 ZDT inspection 3
4.5 Requirements 3
5 Equipment subject to UDT/TDT inspection 3
5.1 Types of technical equipment subject to technical inspection 3
5.2 European Union directives conformity assessment 3
5.3 Manufacturers' licenses 4
5.4 Import of equipment 4
6 Equipment subject to ZDT inspection 4
6.1 Pressure equipment 4
6.2 Atmospheric and low-pressure tanks 4
6.3 Piping 4
6.4 Electric equipment and installations 5
6.5 Cableway equipment 5
6.6 Protective installations 5
7 Relevant documents 5
8 Codes and standards 5
9 Record of changes 6

This document is the property of Grupa LOTOS SA.. Coping and giving it to other are forbidden without express written authority by Grupa LOTOS SA

1 Subject of specification

This specification and other documents referenced herein establish the minimum requirements for the design, fabrication, erection, inspection and tests for equipment and piping subject to UDT/TDT/ZDT inspection.

2 Scope of validity

This specification applies to the preparation of tender documents, inquiries and contracts for newly planned investment or modernization projects of Grupa LOTOS S.A.

It shall also be a basis for preparing both detailed specifications and inquiries for individual or package supplies.

2.1 Deviations

Any deviation from this specification and the relevant specifications, standards and related documents including proposals, which the bidder claims to be economically and / or technically superior solutions must be submitted in writing for review and approval by Grupa LOTOS S.A. Non-approved exceptions are not acceptable by Grupa LOTOS S.A.

The supplier must report in writing any ambiguity in this or any other specifications of Grupa LOTOS S.A. or non-compliance with the referred documents / standards and obtain a written explanation from Grupa LOTOS S.A.

2.2 Order of Precedence

In case of conflicts existing between this specification and other documents, the following order of precedence shall govern:

- The current Polish legislation
- Terms of purchase order / contract and other requirements agreed in writing Grupa LOTOS S.A.
- Data Sheets approved by Grupa LOTOS S.A.
- This specification
- Other Specifications
- Drawings and other documents
- Standards

3 Definitions and designation

NB – Notified Body

UDT – Urząd Dozoru Technicznego (Office of Technical Inspection)

TDT – Transportowy Dozór Techniczny (Transport Technical Inspection)

ZDT – Zakładowy Dozór Techniczny (Factory Technical Inspection of Grupa LOTOS S.A.)

4 Types of technical inspection

4.1 Conformity assessment by NB

Notified Body – assesses the conformity of all new and rebuilt equipment subject to the relevant European Directives.

4.2 UDT inspection

Office of Technical Inspection (UDT) – performs inspection of new, modernized, repaired and operated equipment listed under paragraph 5..

4.3 TDT inspection

Transport Technical Inspection (TDT) – performs inspection of new, modernized, repaired and operated equipment listed under paragraph 5.

4.4 ZDT inspection

Factory Technical Inspection of Grupa LOTOS S.A. (ZDT) – performs inspection of new, modernised, repaired and operated equipment as listed under paragraph 6 of this specification..

4.5 Requirements

All new equipment shall meet the requirements of all applicable European Union Directives.

5 Equipment subject to UDT/TDT inspection

5.1 Types of technical equipment subject to technical inspection

Types of equipment being subject to technical inspection either UDT or TDT shall be in accordance with Rozporządzenie Rady Ministrów z dnia 7 grudnia 2012 r. w sprawie rodzajów urządzeń technicznych podlegających dozorowi technicznemu Dz.U 2012 nr 0 poz. 1468 (Regulation of the Council of Ministers of 7 December 2012 on types of equipment being subject to technical inspection Journal of Laws 2012 No. 0 item 1468)

5.2 European Union directives conformity assessment

It is assumed that UDT-Cert No. 1433 will be the involved Notified Body for all pressure equipment manufactured in Republic of Poland for Grupa LOTOS S.A.

The selection of the conformity assessment module shall be agreed with Grupa LOTOS S.A.

Grupa LOTOS S.A. reserves the right to control the manufacturing of equipment at each stage of purchase order execution.

5.3 Manufacturers' licenses

5.3.1 The manufacturers of equipment that falls within the scope of any of EU directives shall carry out a conformity assessment and shall affix CE marking, if applicable. Notified Body shall be involved in the conformity assessment procedure, if stipulated in the directive(s).

5.3.2 Manufacturers of equipment that does not fall within any EU directives shall have a license and shall be authorized by UDT to manufacture such equipment in accordance with article 9.1 of attachment (Act of Law of 21December 2000 on Technical Inspection Office) to Journal of Laws 2013 item 963. This applies also to materials and elements used to fabricate such equipment

All costs connected with UDT/TDT authorization are covered by the Manufacturer.

Modernization or repair of equipment shall be carried out by manufacturer having UDT/TDT authorization for such work. Moreover any repair or modernization to equipment shall be subject to UDT/TDT agreement and approval.

5.4 Import of equipment

Imported equipment subject to technical inspection and outside of scope of any of EU directives may be imported to Poland on the basis of an import application approved by UDT/TDT in accordance with requirements of article 20.1 of attachment (Act of Law of 21December 2000 on Technical Inspection Office) to Journal of Laws 2013 item 963.

6 Equipment subject to ZDT inspection

6.1 Pressure equipment

Pressure equipment containing hazardous (flammable, toxic and caustic) fluids outside the scope of UDT inspection.

6.2 Atmospheric and low-pressure tanks

Atmospheric and low-pressure tanks (including storage tanks) containing hazardous (flammable, toxic and caustic) fluids outside the scope of y UDT/TDT inspection.

6.3 Piping

Piping outside the scope of UDT/TDT inspection, of a nominal diameter DN ≥ 50 mm, used for transferring:

- hazardous liquids or gases of toxic, caustic and flammable properties under operating pressure higher than 6 bar
- steam at operating pressure higher than 32 bar
- hot water at operating temperature above 100 ^{o}C and operating pressure in excess of 32 bar.

All the above piping shall be subject to assessment of conformity with EU directive No. 97/23/EC.

6.4 Electric equipment and installations

Electric equipment working in explosive conditions:

- electric motors
- intermediate boxes and control cassettes
- switchgear and relays which protect „Ex" motors
- electronic control and measuring instruments
- tracing cables with accessories
- elements of lighting systems
- electric power system sockets.

6.5 Cableway equipment

- Equipment outside the scope of UDT inspection, i.e. one marked with a permanent sign of technical inspection.
- Equipment covered by basic (simplified) inspection i.e. hoists and hoisting winches with manual drives and a lifting capacity of up to 2000 kg and derricks with manual drive and a lifting capacity of up to 2000 kg.

6.6 Protective installations

- Lightning protection systems.
- Static electricity protection systems.

7 Relevant documents

Any "Technical Specification" issued by Grupa LOTOS S.A. listed in Contract Files.

8 Codes and standards

Design, fabrication, installation and documentation shall be in compliance with applicable Polish laws and regulations.

- Obwieszczenie Marszałka Sejmu Rzeczypospolitej Polskiej z dnia 28 czerwca 2013 r. w sprawie ogłoszenia jednolitego tekstu o dozorze technicznym Dz.U. 2013 poz. 963 (Journal of Laws 2013 item 963)
- Rozporządzenie Rady Ministrów z dnia 7 grudnia 2012 r. w sprawie rodzajów urządzeń technicznych podlegających dozorowi technicznemu Dz.U 2012 nr 0 poz. 1468 (Journal of Laws 2012 No. 0 item 1468)

9 Record of changes

No.	Date	Description	Introduced by
0		This specification entirely replaces the former LOTOS Group S.A. standard No. PR 07 810 with the same title.	W. Zaborowski
1.	16.11.2006	Changed point 6.3	M.Rapior
2	29-04-2011	Changed points 5.1, 8	TD
3	30-11-2013	Review, update, standardize and changes to the Standard within scope of order No. OK/990/2012	Editorial board coordinated by T.Wróbel
-	31-08-2015	Page layout corrections, no contents changes.	T. Wróbel

.