(PREVIEW)

Indian Standard

DESIGN AND INSTALLATION OF NATURAL GAS PIPELINES — CODE OF PRACTICE

PART 1 LAYING OF PIPELINES

1 SCOPE

The standard (Part 1) specifies the requirements and gives recommendations for the design, materials, construction and testing of pipelines made of steel and used in the transportation of natural gas and re-gasified liquid natural gas (RLNG). Specific requirements for laying of pipelines in crossings (road, railway, watercourses, other pipelines, etc) are covered in IS 15663 {Part 2). The requirements for pre-commissioning and commissioning of pipelines are covered in IS 15663 (Part 3).

The provisions of the standard apply to pipelines on land including pipelines up to and including isolation valves of compressor station, process plant, liquid natural gas terminals, etc and within the boundaries of such facilities like sectionalizing valve stations, intermediate pigging stations, etc; that form part of the pipeline system connecting gathering stations or process plants to dispatch stations. The provisions in the standard do not include the requirements of operation and maintenance of such pipelines. The scope of the standard is also illustrated in Fig. 1 in Annex A. The standard is not applicable for pipelines constructed from materials other than steel and for pipelines that form part of distribution systems.

2 REFERENCES

The standards given below contain provisions which through reference in this text, constitute provisions of this standard. At the time of publications, the editions indicated were valid. All -standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

Standard	*Title*
IS 269 : 1989	Specification for ordinary Portland cement, 33 grade (*fourth revision*)
IS 383 : 1974	Specification for coarse and fine aggregates from natural sources for concrete (*second revision*)
IS 456 : 2000	Code of practice for plain and reinforced concrete (*fourth revision*)
IS : 1489	Specification for portland pozzolana cement:
(Part 1) : 1989	Flyash based (*third revision*)
(Part 2) : 1989	Calcined clay based (*third revision*)
IS 1498 : 1970	Classification and identification of soils for general engineering purposes (*first revision*)
IS 1566 : 1982	Specification for hard drawn steel wire fabric for concrete reinforcement (*second revision*)
IS 1978 : 1982	Specification for line pipe (*second revision*)

Standard	*Title*
IS 8062 : 2006	Code of practice for cathodic protection of buried pipelines structure for transportation of oil, natural gas and liquids
IS 8112 : 1989	Specification for 43 grade ordinary portland cement (*first revision*)
IS 15659	Specification for petroleum and natural gas industries — External coating for buried or submerged pipelines used in pipeline transportation of gas and liquid hydrocarbons:
(Part 1) : 2006	Ploy olefin coatings (3-layer PE and 3-layer PP)
(Part 2) : 2006	Fusion bonded epoxy coatings
IS 15663 : 2006	Design and installation of natural gas pipelines — Code of practice
(Part 2) : 2006	Laying of pipelines in crossing
(Part 3) : 2006	Pre-commissioning and commissioning of pipelines
API 1104 : 2005	Welding of pipelines and related facilities
API RP5LI : 2002	Recommended practice for railroad transportation of line pipe
API RP 5LW : 1996	Recommended practice for transportation of line pipe on barges and marine vessels
API 6D : 2002	Specification for pipeline valves
ASME B 16.9: 2001	Factory made wrought steel butt welding fittings