



NSAI
Standards

Irish Standard
I.S. 3216:2010+A1:2014

Code of Practice – Bulk storage of liquefied petroleum gas (LPG) – (Edition 2)

I.S. 3216:2010+A1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

I.S. 3216:2010/A1:2014

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i> I.S. 3216:1988, I.S. 3216:part 2:1989	<i>This document is based on:</i> I.S. 3216:2010+A1:2014	<i>Published:</i> 9 January, 2015
This document was published under the authority of the NSAI and comes into effect on: 9 January, 2015		ICS number: 23.020.30
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DECLARATION
OF
SPECIFICATION
ENTITLED
CODE OF PRACTICE – BULK STORAGE OF LIQUEFIED PETROLEUM GAS (LPG) –
(EDITION 2)
AS
THE IRISH STANDARD SPECIFICATION FOR
CODE OF PRACTICE – BULK STORAGE OF LIQUEFIED PETROLEUM GAS (LPG) –
(EDITION 2)

NSAI in exercise of the power conferred by section 16 (5) of the National Standards Authority of Ireland Act, 1996 (No. 28 of 1996) and with the consent of the Minister for Enterprise, Trade and Innovation, hereby declare as follows:

1. This instrument may be cited as the Standard Specification (Code of Practice – Bulk storage of liquefied petroleum gas (LPG) – (Edition 2)) Declaration, 2010.
2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Code of Practice – Bulk storage of liquefied petroleum gas (LPG) – (Edition 2).
(2) The said standard specification may be cited as Irish Standard 3216:2010 or as I.S. 3216:2010.
3. (1) The Standard Specifications (Code of Practice for the bulk storage of liquefied petroleum gas) Declaration 1988 & its Amendments, No. 1:1989, No. 2:1996 & No. 3:2001 and (Code of Practice for the bulk storage of liquefied petroleum gas) Declaration 1989 & its Amendments, No. 1:1994, No. 2:1996 & No. 3:1998 are hereby revoked.
(2) Reference in any other standard specification to the Instruments hereby revoked and to Irish Standard 3216:1988 and Irish Standard 3216:Part 2:1989 and their Amendments thereby prescribed, shall be construed, respectively, as references to this Instrument and to Irish Standard 3216:2010.

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Foreword

This standard has been developed by the Gas Technical Standards Committee (GTSC) Technical Committee 8 (TC 8) – Bulk storage of LPG.

The representatives of the following organisations took part in its preparation:

- Chief Fire Officers Association,
- Dublin City Council,
- Department of Environment, Heritage and Local Government,
- Dublin Institute of Technology,
- Irish Liquefied Petroleum Gas Association,
- Health and Safety Authority,
- National Standards Authority of Ireland.

This Standard represents a standard of good practice but compliance with it does not confer immunity from relevant legal requirements, regulations and local by-laws.

This Standard updates and supersedes I.S. 3216:1988 and I.S. 3216 Part 2:1989 as amended.



The main technical changes include:

- combining of I.S. 3216:1988 and I.S. 3216 Part 2:1989 into a single Standard;
- separation distances;
- addition of clause 4.2;
- update of the hazardous area classification taking into consideration ATEX; and
- addition of environmental considerations.

This Standard does not prevent the use of technical development.

The original standards, I.S. 3216:1988 and I.S. 3216 Part 2:1989, were largely based on the UK Health and Safety Executive (HSE) document HS/G 34 which is © British Crown copyright and is reprinted with the permission of the Controller of Her Britannic Majesty's Stationery Office and on the UK LP Gas Association's Code of Practice No. 1 Part 4:1999 and is hereby acknowledged.

Amendments are indicated by the TAG  

 This amendment (I.S. 3216:2010/A1:2014) has been prepared by Technical Committee GTSC TC 8 and NSAI. 

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

Introduction

This Standard provides a general guide to safe practice in storing and handling liquefied petroleum gas (LPG) at fixed storage installations. It provides a guide to safe practice both for people storing LPG and those enforcing safety requirements. This standard is intended to minimise the risks of fire and explosion from escaping LPG and from a fire at or near LPG storage. The information in this standard gives one way of achieving an acceptable standard of safety. Each case may be considered on its merits and special circumstances may necessitate variations from the recommendations. It is not intended to preclude the use of alternative designs, materials and methods where these provide equivalent safety standards. Neither is it the intention that the recommendations should be applied rigidly to existing premises, where for a variety of reasons it may not be practicable to comply with them, although such alterations that are considered to be reasonable or essential for safety should be made. New installations should comply with the advice in this standard from the date of publication.

This Irish Standard may involve the use of substances and procedures that may be injurious to health and/or the environment if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations at any stage.

Protection of the environment is taken in a very broad sense. What is meant is the total life cycle aspects of, e.g. a product on the environment, including expenditure of energy and during all phases from mining of raw materials, fabrication, packaging, distribution, use, scrapping, recycling of materials, etc. Annex H lists the clauses that address environmental aspects.

The storage of LPG may be subject to additional legal requirements, for example:

- Safety Health and Welfare at Work Act 2005 and associated regulations;
- Dangerous Substances Act 1972;
- Dangerous Substances (Liquefied petroleum gas) Regulations 1990;
- European Communities (Control of major accident hazards involving dangerous substances) Regulations 2006;
- Fire Services Act 1981 and 2003 (as amended);
- Building Control Act A1 2007 A1;
- Planning and Development Act 2000.

NOTE The above legal references are subject to amendment.

Schedule

■ A1 Bulk Storage and transfer of Liquefied Petroleum Gas (LPG) A1

1 Scope

This Standard deals with the storage of LPG under pressure at ambient temperatures in fixed and skid mounted vessels larger than 150 litres.

■ A1 It applies to all such sites whether or not the material is stored for use on-site or trans-shipment and subsequent use off-site. A1

The scope of this standard includes the following:

- loading and off-loading tankers;
- ■ A1 A1;
- ■ A1 filling of cylinders; A1
- ■ A1 vehicle filling; A1
- equipping of tanks;
- pipework for bi-phase service;
- vaporisers;
- marking/signage;
- fire precautions;
- commissioning/de-commissioning;
- maintenance and examination;
- training;
- operational procedures;
- separation distances;
- hazardous area classification; and
- LPG refuelling facilities at retail outlets and at private automotive refuelling facilities where a dispenser (as would be used at retail sites) is incorporated in the system.

General guidance is not given on the storage of cylinders or cartridges containing LPG. Advice on these matters can be found in I.S. 3213.

For domestic pipework other than that associated with storage facilities refer to I.S. 813. For non-domestic piping refer to I.S. 820 and I.S. EN 15001 parts 1 and 2 as appropriate. For service pipework refer to I.S. 265. For distribution pipework see I.S. 329.

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