

ISBN 978-0-626-27962-2

SANS 10087-7:2013

Edition 4

SOUTH AFRICAN NATIONAL STANDARD

The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations

Part 7: Storage and filling premises for refillable liquefied petroleum gas (LPG) containers of gas capacity not exceeding 19 kg and the storage of individual gas containers not exceeding 48 kg

WARNING

This standard references other documents normatively.

Published by SABS Standards Division
1 Dr Lategan Road Groenkloof ☒ Private Bag X191 Pretoria 0001
Tel: +27 12 428 7911 Fax: +27 12 344 1568

www.sabs.co.za

© SABS

SABS

SANS 10087-7:2013

Edition 4

Table of changes

Change No.	Date	Scope

Foreword

This South African standard was approved by National Committee SABS/TC 1019, *Gas supply, handling and control (fuel, industrial and medical gases)*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in January 2014.

This document supersedes SANS 10087-7:2011 (edition 3.1).

This document is referenced in the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977).

This document was written in order to support a specific South African Regulation and, of necessity, includes references to South African legislation. It therefore might not be suitable for direct application in other jurisdictions where conflicting legislation exists.

SANS 10087 consists of the following parts, under the general title, *The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations*:

Part 1: Liquefied petroleum gas installations involving gas storage containers of individual water capacity not exceeding 500 L and a combined water capacity not exceeding 3 000 L per installation.

Part 2: Installations of LPG systems in mobile units, including but not limited to caravans, motor homes, park homes and mobile kitchens.

Part 3: Liquefied petroleum gas installations involving storage vessels of individual water capacity exceeding 500 L.

Part 4: The transportation of LP gas including the design, construction, inspection, fittings, filling, maintenance and repair of LP gas bulk vehicles and rail tank cars.

Part 6: The application of liquefied petroleum and compressed natural gases as engine fuels for internal combustion engines.

Part 7: Storage and filling premises for refillable liquefied petroleum gas (LPG) containers of gas capacity not exceeding 9 kg and the storage of individual gas containers not exceeding 48 kg.

Part 8: Filling containers for LP gas operated fork lift vehicles in-situ.

Part 10: Mobile filling stations for refillable liquefied petroleum gas (LPG) containers of capacity not exceeding 9 kg.

Introduction

In compiling this document, the possible dangers arising as a result of the specific properties of LPG were taken into consideration together with the dangers resulting from the physical operation of filling the containers. Other dangers associated with aspects of filling include incorrect siting of filling facilities, employing untrained personnel and a lack of proper supervision.

Compliance with this document does not, however, confer immunity from relevant legal requirements and the jurisdictional authority or the local fire authority. Where mandatory requirements are applicable, the local fire authority should be approached to ensure compliance.

When small, non-refillable gas cartridges (for lamps, stoves, etc.) are stocked for resale, it is recommended that the quantities involved and the position of storage be in accordance with local by-laws and the appropriate fire department requirements. See also SANS 10263-0.

This document should be interpreted in light of the merits and demerits of each situation, and deviations from the requirements of this document should only be proposed after consultation with and acceptance by the appropriate authority or the local fire department.

SANS 10087-7:2013

Edition 4

Contents

	Page
Foreword	
Introduction	1
1 Scope	3
2 Normative references	3
3 Definitions	4
4 Properties of LPG and precautions to be observed	6
5 Location, design and control of filling premises with or without a storage area	7
6 Filling equipment	10
7 Containers	11
8 Operators	11
9 Inspection procedure	12
10 Filling procedure	14
11 Handling and storage of LPG containers	15
12 Prevention and control of fires involving LPG	19
Figures 1-11	21-30
Bibliography	31

The handling, storage, distribution and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations

Part 7:

Storage and filling premises for refillable liquefied petroleum gas (LPG) containers of gas capacity not exceeding 19 kg and the storage of individual gas containers not exceeding 48 kg

1 Scope

1.1 This part of SANS 10087 specifies:

- a) the minimum requirements for the location and installation of gas supply systems at premises for the filling of liquefied petroleum gas (LPG) containers of gas capacity not exceeding 19 kg; and
- b) the requirements for the storage of individual gas containers not exceeding 48 kg.

1.2 This part of SANS 10087 also identifies safe methods for the filling and storage of refillable containers and makes recommendations on safe working procedures that cover all aspects of the storage of containers.

1.3 This part of SANS 10087 also covers the storage of non-refillable containers.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

SANS 543, *Fire hose reels (with semi-rigid) hose.*

SANS 1128-1; *Firefighting equipment – Part 1: Components of underground and above-ground hydrant systems.*

SANS 1186-1, *Symbolic safety signs – Part 1: Standard signs and general requirements.*

SANS 1475-1, *The production of reconditioned fire-fighting equipment – Part 1: Portable and wheeled (mobile) rechargeable fire extinguishers.*