

SINGAPORE STANDARD

**CP 40 : 1987**

(ICS 23.020; 55.140)

CODE OF PRACTICE FOR

**The storage of flammable  
and combustible liquids**

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SINGAPORE STANDARD  
CODE OF PRACTICE FOR THE STORAGE OF FLAMMABLE  
AND COMBUSTIBLE LIQUIDS

FOREWORD

A Technical Committee had earlier drawn up a Singapore Standard on the caution labelling of hazardous substances. This Committee further identified that it was necessary to formulate Codes of Practice on the transportation and storage of three broad classes of hazardous substances namely (1) toxic chemicals and pesticides, (2) flammable substances and (3) industrial gases.

This Singapore Standard Code of Practice was drawn up by the Technical Committee on the Storage of Flammable and Combustible Liquids and was approved by the Chemical Product Standards Committee.

In preparing this Code of Practice, reference was made to the following publications:

1. Australian Standard : The Storage and Handling of  
AS 1940 : 1982 Flammable and Combustible  
Liquids
2. South Africa Bureau Standard : The Handling, Storage and  
SABS 089 : Part 1 : 1983 Distribution of Petroleum Products
3. National Fire Protection Association : Flammable and  
NFPA No. 30 : 1981 Combustible Liquids Code
4. Institute of Petroleum : Model Code of Safety Practice in the  
Petroleum Industry, Part 3 – Refining  
Safety Code

Acknowledgement is made for the use of information from these publications.

NOTE

1. Singapore Standards are subject to periodical review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue either of amendment slips or of revised editions.
2. Compliance with a Singapore Standard does not exempt users from legal obligations.

## 1. SCOPE

This standard sets out requirements for the design, construction and operation of installations for the storage of flammable and combustible liquids in locations that are generally industrial, commercial or rural in nature. This standard does not apply to the following:

- (a) Shipboard installations.
- (b) Fuel tanks on any mobile vehicle or equipment.
- (c) Any plant or equipment in which liquid is processed, together with any vessels which form an integral part of the processing equipment.
- (d) Potable liquids.
- (e) Bitumen and its mixtures prepared for road-making.
- (f) Flammable liquids stored under pressure (e.g. N<sub>2</sub> blanketed tank).
- (g) Liquids which are normally unstable and readily undergo violent chemical changes at elevated temperature and pressure and readily undergo violent chemical changes with rapid release of energy at normal temperature and pressure.
- (h) Liquefied gases that are maintained in the liquid phase for storage by means of pressure or refrigeration.

## 2. DEFINITIONS

For the purpose of this standard, the following definitions shall apply:

**2.1 Approved, Approval.** With the approval of, acceptable to, and meeting the prescribed standards of the authority having jurisdiction.

**2.2 Authority, Authority Having Jurisdiction.** The Authority having statutory (legal) control of the subject installation.

**2.3 Boundary.** The boundary of the whole of the site under the same occupancy as that on which the installation is included.

**2.4 Bulk Plant.** Portion of property where flammable and combustible liquids are received by tank vessel, pipeline, tank car, or tank vehicles, and are stored in bulk for the purpose of distributing such liquids by tank vessel, pipeline, tank car, tank vessel or container.

**2.5 Bund.** An embankment of earth, or a wall of brick, stone, concrete or other approved materials which may form part or all of the perimeter of a compound.

**2.6 Capacity (Of A Tank).** The total volume which the tank will accept without spilling or leaking.

**NOTE.** It is recognised that the available capacity of a tank will normally be less than the full capacity.

**2.7 Chemical Plant.** A large integrated plant or that portion of such a plant other than the refinery where flammable and combustible liquids are produced by chemical reaction or used in chemical reaction.