

AS 3961—1991

Australian Standard<sup>®</sup>

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**Liquefied natural gas—Storage  
and handling**

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This Australian Standard was prepared by Committee ME/70, Liquefied Natural Gas—Storage and Handling. It was approved on behalf of the Council of Standards Australia on 17 June 1991 and published on 9 August 1991.

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The following interests are represented on Committee ME/70:

The Australian Gas Association

Australian Institute of Petroleum

Confederation of Australian Industry

Department of Mines, W.A.

Department of Primary Industries and Energy (Commonwealth)

Work Health Authority, N.T.

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## PREFACE

This Standard was prepared by the Standards Australia Committee on Liquefied Natural Gas—Storage and Handling in response to requests from authorities, industries and utilities associated with the subject.

A first draft had been prepared by the Work Health Authority of the Northern Territory, and was derived from the Canadian Standard Z276M—1981, *Liquefied natural gas (LNG)—Production, storage and handling*, with a small number of requirements taken from NFPA 59A, 1985, *Production, storage and handling of liquefied natural gas (LNG)*. Other changes had included references to Australian Standards where appropriate.

That draft, reflecting its origins, was oriented towards large-tonnage atmospheric tank installations, so it was necessary to add further requirements to treat the smaller but more numerous pressure tanks. For this AS 1596, *SAA LP Gas Code* was used as a model because of obvious similarities, but considerable adjustment was necessary to cater for the many differences between LPG and LNG. AS 1940, *SAA Flammable and Combustible Liquids Code* was also a useful source, because atmospheric LNG storage has something in common with flammable liquids storage, and the experience of the established cryogenics industry was also valuable.

While these analogies with LPG, petrol and cryogenics were helpful in the general drafting process, LNG has a number of particular properties that require measures that are specific to it. The Standard is therefore an amalgamation of requirements having origins in a variety of sources, but tailored to suit the particular needs of LNG, and arranged to cater for the essential distinctions between the two basic types of storage and handling systems, i.e. pressure tanks and road or rail tankers on the one hand, or atmospheric tanks for marine or pipeline transport systems on the other.

Currently a new British Standard in four parts to replace BS 4741 and BS 5387 is being circulated for public comment, see BSI drafts DC 90/73016, 90/73024, 90/73029 and 90/73037. It is intended to reference this Standard, when published, as the preferred Standard for the design and construction of atmospheric tank storages.

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