

Australian Standard[®]

**Inspection and integrity monitoring of
large steel vertical petroleum storage
tanks**



This Australian Standard® was prepared by Committee ME-017, Flammable and Combustible Liquids. It was approved on behalf of the Council of Standards Australia on 9 January 2008.

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- Agsafe
 - Australasian Fire Authorities Council
 - Australian Industry Group
 - Australian Institute of Petroleum
 - Australian Paint Manufacturers Federation
 - Department of the Premier and Cabinet, SA
 - Department of Consumer and Employment Protection, WA
 - Department of Defence
 - Department of Emergency Services, Qld
 - Department of Justice, Tas.
 - Fire Protection Association of Australia
 - Insurance Council of Australia
 - Plastics and Chemicals Industries Association
 - Victorian WorkCover Authority
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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PREFACE

This Standard was prepared by Standards Australia Committee ME-017, Flammable and Combustible Liquids, to provide requirements and recommendations for the inspection and integrity monitoring of steel tanks. It is based on the Australian Institute of Petroleum (AIP) CP 16—1993, *Code of Practice—Inspection and integrity monitoring of large steel vertical petroleum storage tanks*, which has been withdrawn by AIP. Committee ME-017 has agreed that CP 16 should be redrafted as an Australian Standard.

This Standard is intended to provide guidelines for a system of tank inspections and condition monitoring as a basis for ensuring the ongoing structural integrity of large petroleum storage tanks. It is not intended to replace any statutory regulations in any area, which take precedence over the requirements of this Standard. The relevant regulatory authority having jurisdiction may determine the extent of application of this Standard.

Individual companies may have additional or special policies and requirements that exceed or vary the requirements set out in this Standard. In such situations, such companies also need to be consulted.

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STANDARDS AUSTRALIA

Australian Standard

Inspection and integrity monitoring of large steel vertical petroleum storage tanks

1 SCOPE AND APPLICATION

1.1 Scope of Standard

This Standard sets out requirements and recommendations for a system of tank inspection and condition-monitoring which, if followed, will provide the basis for ensuring the ongoing structural integrity of large petroleum storage tanks of Category 6, as defined in AS 1692.

1.2 Application

This Standard applies to large vertical steel petroleum storage tanks (as defined in Clause 3.4 below) and located at distribution terminals and depots, airports and consumer premises. It is intended principally as a guide for personnel responsible for the integrity of large petroleum storage tanks. It deals with the technical and administrative essentials of the condition monitoring of these tanks.

It does not purport to be a technical reference work or detailed procedures manual, nor does it cover the many safety precautions that need to be taken to avoid exposing personnel to the risk of fire, suffocation, poisoning or physical injury.

1.3 Relationship with regulations

In each Australian State and Territory a statutory body exists to administer the legislation covering the storage and handling of flammable and combustible liquids. This Standard is intended to be supplementary to, and not a substitute for, such legislation.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard.

AS

1692 Steel tanks for flammable and combustible liquids

1940 The storage and handling of flammable and combustible liquids

AS/NZS

2865 Safe working in a confined space

3788 Pressure equipment—In-service inspection

BS

2654 Manufacture of vertical steel welded non-refrigerated storage tanks with butt-welded shells for the petroleum industry

API (American Petroleum Institute)

Std 650 Welded Steel Tanks for Oil Storage

Std 653 Tank Inspection, Repair, Alteration, and Reconstruction

3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.