

Australian Standard<sup>®</sup>

**The removal and disposal of  
underground petroleum storage tanks**

**STANDARDS**  
Australia



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 23 January 2008.

This Standard was published on 19 February 2008.

---

The following are represented on Committee ME-017:

- Agsafe
  - Australasian Fire Authorities Council
  - Australian Chamber of Commerce and Industry
  - 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
- 

This Standard was issued in draft form for comment as DR 07413.

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.

---

#### **Keeping Standards up-to-date**

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting [www.standards.org.au](http://www.standards.org.au)

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.org.au](mailto:mail@standards.org.au), or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

---

Australian Standard<sup>®</sup>

**The removal and disposal of  
underground petroleum storage tanks**

First published as AS 4976—2008.

**COPYRIGHT**

© Standards Australia

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8554 9

## PREFACE

This Standard was prepared by Standards Australia Committee ME-017, Flammable and Combustible Liquids, to provide requirements and recommendations for the removal and disposal of underground petroleum storage tanks. It is based on the Australian Institute of Petroleum (AIP) CP 22—1994, *Code of Practice—The removal and disposal of underground petroleum storage tanks*, which has been withdrawn by AIP.

The purpose of this Standard is to set out procedures for dealing with underground storage tanks that have held flammable or combustible liquids and are no longer required for this purpose. Such tanks are commonly found at service stations, but the recommendations are equally applicable to underground tanks used for the same purpose at other locations.

This Standard is not intended to replace statutory regulations 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 or tank owners may have additional or special requirements that exceed or vary the requirements of this Standard. In such situations, such companies and owners need to be consulted.

## CONTENTS

|  | <i>Page</i> |
|--|-------------|
| FOREWORD.....  | 5           |
| SECTION 1 SCOPE AND GENERAL                                    |             |
| 1.1 SCOPE .....  | 6           |
| 1.2 APPLICATION .....  | 6           |
| 1.3 REFERENCED DOCUMENTS .....                                 | 6           |
| 1.4 DEFINITIONS .....  | 6           |
| SECTION 2 GENERAL REQUIREMENTS                                 |             |
| 2.1 SCOPE OF SECTION .....                                     | 8           |
| 2.2 AWARENESS OF HAZARDS.....                                  | 8           |
| 2.3 FLAMMABILITY .....   | 8           |
| 2.4 TOXICITY .....   | 9           |
| 2.5 ENTRY INTO CONFINED SPACES AND EXCAVATIONS.....            | 9           |
| 2.6 ENVIRONMENTAL PROTECTION.....                              | 9           |
| 2.7 INSURANCE .....  | 9           |
| SECTION 3 TANKS TEMPORARILY OUT-OF-SERVICE                     |             |
| 3.1 SCOPE OF SECTION .....                                     | 10          |
| 3.2 OUT-OF-SERVICE PERIOD.....                                 | 10          |
| 3.3 PROCEDURE FOR TAKING TANKS TEMPORARILY OUT OF SERVICE..... | 10          |
| 3.4 REGULATIONS AND RECORDS .....                              | 11          |
| SECTION 4 ABANDONMENT OF TANK IN SITU                          |             |
| 4.1 SCOPE OF SECTION .....                                     | 12          |
| 4.2 GENERAL .....  | 12          |
| 4.3 PROCEDURE .....  | 12          |
| 4.4 REGULATIONS AND RECORDS .....                              | 13          |
| SECTION 5 REMOVAL OF TANKS FOR DISPOSAL OFF-SITE               |             |
| 5.1 SCOPE OF SECTION .....                                     | 14          |
| 5.2 GENERAL .....  | 14          |
| 5.3 PROCEDURES .....   | 14          |
| 5.4 TRANSPORT OF TANKS.....                                    | 15          |
| 5.5 REGULATIONS AND RECORDS .....                              | 16          |
| SECTION 6 STORAGE OF USED TANKS                                |             |
| 6.1 SCOPE OF SECTION .....                                     | 17          |
| 6.2 GENERAL .....  | 17          |
| 6.3 STORAGE CONDITIONS .....                                   | 17          |
| 6.4 RECORDS.....   | 17          |
| SECTION 7 TAKING OUT-OF-SERVICE AND CLOSURE OF UPS SYSTEMS     |             |
| 7.1 SCOPE .....  | 18          |
| 7.2 GENERAL REQUIREMENTS .....                                 | 18          |
| 7.3 UPSS TANKS TEMPORARILY OUT-OF-SERVICE .....                | 18          |
| 7.4 REMOVAL AND ABANDONMENT IN SITU .....                      | 18          |

## SECTION 8 DISPOSAL OF USED TANKS AND TANK MATERIAL

|     |                        |    |
|-----|------------------------|----|
| 8.1 | SCOPE OF SECTION ..... | 19 |
| 8.2 | GENERAL .....          | 19 |
| 8.3 | PROCEDURE .....        | 19 |
| 8.4 | RECORDS.....           | 20 |

## APPENDICES

|   |  |    |
|---|--|----|
| A | REFERENCED DOCUMENTS .....                 | 21 |
| B | PURGING OF UNDERGROUND TANKS IN SITU ..... | 22 |
| C | EXAMPLE OF INDEMNITY DOCUMENT .....        | 25 |

Currently in preview, click buy full vers.

## FOREWORD

Underground tanks that have been used for the storage of petroleum products or other flammable or combustible liquids need to be dealt with in an appropriate manner when they are no longer required or suitable for such use.

Strict procedures are necessary to avoid the potential safety and environmental hazards associated with the disposal of used tanks and tank material, and with the future use of the site.

Currently in preview, click buy full vers.

## STANDARDS AUSTRALIA

## Australian Standard

## The removal and disposal of underground petroleum storage tanks

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard sets out procedures for the temporary decommissioning of tanks *in situ* and the removal, transport and off-site disposal of underground tanks that have contained flammable or combustible liquids. It also describes procedures for the abandonment of tanks *in situ* where removal is not feasible.

**1.2 APPLICATION**

This Standard mainly applies to service stations. However the procedures set out in this Standard are also applicable to underground storage systems in other non-industry premises and similar systems that have stored flammable or combustible liquid in other industrial situations.

The relevant regulatory authority may determine the extent of application of this Standard.

**1.3 REFERENCED DOCUMENTS**

A list of documents referred to in this Standard is given in Appendix A.

**1.4 DEFINITIONS**

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

**1.4.1 Cold cutting**

Methods of cutting metal that do not involve a form of hot work, as defined in AS 1674.1, or equipment not approved for use in a hazardous area.

**1.4.2 Contractor**

The person or company charged with the responsibility of carrying out the actual work.

**1.4.3 Electrically bonded**

A method of controlling hazardous static electric discharges by having all conducting parts of a product transfer system electrically earthed and having a resistance not exceeding 1 megaohm.

NOTE: Detailed recommendations for control of static electricity are given in AS/NZS 1020.

**1.4.4 Flammable and combustible liquids**

Liquids as defined in AS 1940.

**1.4.5 Gas-free**

The condition of a vessel when it has been subject to a procedure such as described in AS 1674.1 and when the vapour space has a flammable gas concentration of less than 5% of the lower explosive limit (LEL) as measured with a calibrated flammable gas detector complying with the relevant part of AS/NZS 61779.

NOTE: A gas-free condition may only last for a limited time and re-testing at regular intervals is essential, especially after any change in conditions which may affect the vapour concentration.