

# Design, construction, modification, maintenance and decommissioning of filling stations

3rd edition



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## FOREWORD

This publication provides information for those involved in the design, construction, modification, maintenance and decommissioning of facilities for the storage and dispensing of vehicle fuels (at either retail or commercial premises), hereafter referred to as filling stations. In addition it will be of interest to those involved in the enforcement of regulations applicable to such sites.

It has been produced jointly by the Association for Petroleum and Explosives Administration (APEA) and the Service Station Panel of the Energy Institute (EI). Considerable technical input has also been provided by the UK Health & Safety Executive and other industry stakeholders in the UK.

This edition replaces that published by APEA/EI in 2005. Changes have been made to the content to reflect changes in technology and legislation since publication of the last edition.

Although the information is largely based on experience from the UK, and makes frequent reference to legislation applicable in the UK, it is anticipated that the general principles will be applicable in most regions internationally. Those involved in the design, construction, modification and maintenance of filling stations outside of the UK should comply with any legislation applicable in that country.

The information contained in this publication is not intended to be prescriptive, nor to preclude the use of new developments, innovative solutions or alternative designs, materials, methods and procedures, so long as such alternatives are able to provide at least an equivalent level of control over the identified safety, pollution and health hazards to that provided by this guidance, and in doing so achieve compliance with any relevant legislation.

In the preparation of this publication it has been assumed that those involved in the design, construction, modification, maintenance and decommissioning of filling stations will be competent to do so and able to apply sound engineering judgment.

The content of this publication is provided for information only and while every reasonable care has been taken to ensure the accuracy of its contents, APEA and the EI cannot accept any responsibility for any action taken, or not taken, on the basis of this information. Neither the APEA nor the EI shall be liable to any person for any loss or damage which may arise from the use of any of the information contained in any of its publications.

The above disclaimer is not intended to restrict or exclude liability for death or personal injury caused by own negligence.

Suggested revisions are invited and should be submitted to:

Technical Department, Energy Institute, 61 New Cavendish Street, London, W1G 7AR

or

The Association for Petroleum & Explosives Administration, PO Box 106, Saffron Walden, CB11 3XT.

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APEA	Association for Petroleum and Explosives Administration
CFOA	The Chief Fire Officers Association
DFA	Downstream Fuels Association
EA	Environment Agency
ECA	Electrical Contractors Association
EI	Energy Institute
FEF	Forecourt Equipment Federation
HSE	Health & Safety Executive
NICEIC	National Inspection Council for Electrical Installation Contracting
PEIMF	Petroleum Equipment Installers and Maintenance Federation
RMIP	Retail Motor Industry Petrol
SELECT	The Electrical Contractors Association of Scotland
UKLPG	UK Liquefied Petroleum Gas
UKPIA	UK Petroleum Industry Association

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# 1 SCOPE

This publication:

- Provides technical guidance on the storage and dispensing of petroleum products including petrol, diesel, autogas (also known as LPG) and biofuels (blends of petrol or diesel containing up to 10 % biomass derived component), used as fuels for motor vehicles, primarily at filling stations to which the general public have access.
- Provides technical information in an Annex on the storage and dispensing of biofuels with greater than 10 % biomass derived component.
- Covers civil, mechanical, hydraulic and electrical installation issues for the planning, design, construction, commissioning, modification, maintenance and decommissioning of filling stations.
- Provides information aimed at minimising the risks from fire and explosion, to health and to the environment.
- Describes good practice and certain legal requirements, particularly those applicable in the UK.
- Is primarily intended to be applicable to both new sites and existing sites that are modified/refurbished. The guidance should also be useful in assisting the duty-holder to undertake periodic review of their risk assessment(s) required under specific legislation applying to the facilities.
- Provides general principles that may be applicable to other types of installation where fuels are stored and dispensed for non-retail use.

This publication does not:

- Provide technical information on facilities for the storage and dispensing of compressed natural gas (CNG).
- Cover the detailed procedures for the assessment of risk.
- Provide information on operational procedures.
- Cover all potential configurations/types of installations, some of which will have site-specific risks associated with them.