

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

5th 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 and Safety Executive and Environment Agency, along with other industry stakeholders in the UK.

It is the intent of this publication that compliance with it will meet the requirements of the Petroleum (Consolidation) Regulations 2014.

This edition replaces that published by APEA/EI in 2018. 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 judgement.

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 that may arise from the use of any of the information contained in any of its publications.

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Suggested revisions are invited and should be submitted to:

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APEA	Association for Petroleum and Explosives Administration
DFA	Downstream Fuels Association
EA	Environment Agency
EI	Energy Institute
FEF	Forecourt Equipment Federation
FIUK	Fuels Industry UK
HSE	Health and Safety Executive
LGUK	Liquid Gas UK
PEIMF+	Petroleum Equipment Installers and Maintenance Federation
PRA	Petrol Retailers Association
SELECT	The Electrical Contractors Association of Scotland

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1 SCOPE

This publication (along with an associated addendum):

- Provides technical guidance on the storage and dispensing of petroleum products including petrol, diesel, autogas (also known as LPG), hydrogen 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.
- 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 leaks, spillages, fires and explosions, to safety, 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 providing a benchmark to assist the duty-holder to undertake periodic review of their risk assessment(s) required under specific legislation applying to the facilities.
- Is intended to be used by individuals with sufficient competence to understand and apply the guidance, and who are aware when they lack the necessary competence and should obtain specialist advice.
- 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);
- provide technical guidance on facilities for the storage and dispensing of liquefied natural gas (LNG);
- provide technical guidance for the storage and dispensing of fuels at marinas or similar locations;
- cover the detailed procedures for the assessment of risk;
- provide information on operational procedures, or
- cover all potential configurations/types of installations, some of which will have site-specific risks associated with them.

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The APEA is a UK based organisation, drawing membership from all quarters of the petroleum industry worldwide, including regulators from national and local government authorities, oil companies, equipment manufacturers and suppliers, service and installation organisations, training establishments and many others. It is seen to be unique in representing all sides of the industry and in providing a forum for debate and the generation of technical guidance for the petrol filling station.

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