



Wilkins Safety Group

H & S Guidance - Petrol and Petrol Filling Stations

INTRODUCTION

Petrol is a highly flammable liquid and gives off flammable vapour even at very low temperatures. When this vapour is mixed with air in proportions between 1% and 8% a risk of fire or explosion exists. Petrol vapour is heavier than air and does not disperse easily in still conditions. It tends to sink to the lowest possible level of its surroundings and may accumulate in tanks, cavities, drains, pits or other depressions. Flammable atmospheres may also exist where clothing or other absorbent material or substances are contaminated with petrol.

Petrol vapour can have acute or chronic effects if inhaled and therefore should be considered in the assessment required under the Control of Substances Hazardous to Health Regulations 2002 (COSHH).

The petroleum licensing authority are responsible for ensuring safety at sites where petrol is delivered, stored and dispensed.

The keeping of petrol must be in accordance with conditions attached to a licence issued under the Petroleum (Consolidation) Act 1928. When an Inspector appointed by the licensing authority visits a petrol filling station the aim is to ensure the observance, maintenance and, where necessary, the improvement of safety standards.

Other safety-related legislation is enforced by district councils or the HSE, dependent on the main activity at the premises concerned.

Safety aspects of petroleum delivery, storage and dispensing are the responsibility of the licensing authority's Petroleum Officers.

Such officers work to, and are able to give advice on, nationally produced guidance such as:

HS(G) 146 -Dispensing petrol. Assessing and controlling the risk of fire and explosion at sites where petrol is stored and dispensed as a fuel.



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L 133 ACoP Unloading Petrol from Road Tankers, Dangerous Substances and Explosive Atmospheres Regulations 2002

OTHER HEALTH AND SAFETY CONSIDERATIONS

In addition to the general duties established under the Health and Safety at Work etc. Act 1974 (s.2, 3, 4, 7 & 8) the following legislation (covered in other elements in this manual) may also be of relevance in premises visited by local authority health and safety inspectors:

- (i) Management of Health and Safety at Work Regulations 1999.
(Risk assessment, appointment of competent persons etc.)
- (ii) COSHH (assessment and control of risks arising from substances hazardous to health).
- (iii) Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)
- (iv) Electricity at Work Regulations 1989
- (v) Provision and Use of Work Equipment Regulations 1998.

PETROL AND COSHH

Aspiration is the entry of liquid into the lungs following swallowing and subsequent vomiting. Petrol is classified as 'Harmful by ingestion' owing to this aspiration hazard i.e. the risk of chemical pneumonitis, and not because of its acute toxicity i.e. poisoning, properties. Petrol is also classified as a skin irritant, due to its potential to cause dermatitis. The presence of up to 5% benzene means that petrol is classified as Carcinogenic, Category 2 (See element on 'Carcinogens' in this manual for further guidance).

Under COSHH a suitable and sufficient risk assessment is required for all jobs carried out involving petrol. This may involve emergency procedures (spillages or accidental ingestion), protective clothing to prevent skin contact and precautions to control exposure by inhalation.



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PETROL - GENERAL SAFETY

Where petrol might be used (e.g. mobile equipment, generators) or workers exposed to other petrol fire/explosion risks (e.g. garage workshops) an assessment needs to be carried out on the risks involved to ensure that adequate control measures are taken.

Leaflets giving advice on petrol safety are available, covering safe storage, carriage and use.

When draining petrol tanks, appropriate advice includes:

- Choose a level, well-ventilated area, preferably out of doors.
- Never drain petrol over a pit.
- Keep all sources of ignition well away.
- Use a proper fuel retriever or syphon
- If draining into a container, use a funnel
- Do not attempt hot work on petrol tanks

CHECKLIST -

PETROL & PETROL FILLING STATIONS

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|---|-----|----|
| 1 Have you carried out a COSHH assessment regarding exposure to petrol? | Yes | No |
| 2 As a premises storing/dispensing petrol as a fuel do you comply with the licence issued by your Petroleum Licensing authority? | Yes | No |
| 3 For other premises where petrol is used or handled, have you carried out a risk assessment for the activities concerned? | Yes | No |
| 4 Have you implemented appropriate measures to control the fire/explosion risks identified in your risk assessment? | Yes | No |
| 5 Have you informed or instructed employees of the health and safety risks associated with petrol and appropriate precautions that should be taken? | Yes | No |



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REFERENCES/FURTHER DETAILS

1. HS(G) 146: Dispensing petrol. Assessing and controlling the risk of fire and explosion at sites where petrol is stored and dispensed as a fuel. (HSE) ISBN 0-7176-1048-9
2. Report by the Association of Forecourt Systems Contractors - 'Working on Petrol Filling Stations Forecourts' (January 1993) (Copies from Mr. D. Fox, PO Box 64, Banstead, Surrey, SM7 2QH).
3. Guidance Note: Petrol at Retail Filling Stations - application of COSHH Carcinogens ACoP. (UK Petroleum Industry Association, 9 Kingsway, London, WC2B 6XF)
4. Leaflet IND(G) 216L: Dispensing petrol as a fuel: health and safety guidance for employees.(HSE)
www.hse.gov.uk/pubns/indg216.htm
5. Leaflet IND(G) 331: 'Safe use of petrol in garages' (HSE)