

FUELLING STATIONS CONSTRUCTION AND OPERATION: PPG7

ENVIRONMENTAL ALLIANCE – WORKING TOGETHER

POLLUTION PREVENTION GUIDELINES

These notes are for guidance only and are produced by the Environment Agency for England and Wales, the Scottish Environment Protection Agency and the Environment and Heritage Service in Northern Ireland, referred to as the Agency or Agencies. They refer to all forms of retail and other fuel outlets including those where diesel only is handled. They do not apply to other fuel sites such as rail side depots where fuel stocks may be stored above ground or other commercial fuel sites. Although existing sites are encouraged to comply, it is not intended that the requirements should apply retrospectively unless pollution has occurred or the risk that it might is unacceptable. Early consultation with your local Agency office is advisable, as each site will be considered according to the individual circumstances. Contact details will be found at the end of these guidelines.

Note that throughout these guidelines the term 'separator' is used instead of the more commonly used 'interceptor'.

The terms have the same meaning.

1. LEGISLATION

a. Pollution control

The Agencies are responsible for the protection of "controlled waters" from pollution under the Water Resources Act 1991 in England & Wales, the Control of Pollution Act 1974 (as amended) in Scotland and the Water Act 1972 in Northern Ireland. With the exception of Northern Ireland they are also responsible for the prevention of pollution of the environment and harm to human health by waste management activities under the Environmental Protection Act 1990.

It is an offence to cause pollution of controlled waters either deliberately or accidentally. "Controlled waters" include all watercourses, canals, coastal waters and water contained in underground strata (or groundwater).

b. Discharges to public foul sewer

Discharges to the public foul sewer require authorisation by the sewerage undertaker and may be subject to the terms and conditions of a trade effluent consent. Where reference is made to disposal to sewer, this should always be subject to such approval.

c. Petroleum storage

The safe keeping of petroleum spirit (petroleum products that give off a flammable vapour at a temperature of less than 21°C) is regulated by a licence issued under the provisions of The Petroleum (Consolidation) Act, 1928, by Harbour, Fire and Civil Defence Authorities and County and Unitary Councils. Licence conditions may be imposed in relation to other substances and activities within the licensed site in as far as they are affected by the presence of the petroleum spirit.

2. GUIDANCE

The Health and Safety Executive has produced a guidance document HS(G)41, Petrol filling stations: Construction and operation (Reference 1), which amongst other things incorporates advice on petrol interception and storage tank design and installation. Although the advice is specifically provided for the safe keeping of petrol, much of it has environmental benefits. Although a replacement for HS(G)41 is planned, until such time as alternative guidance is available, it should be read in conjunction with this guidance note.

(N.B. Filling stations storing and dispensing diesel fuel only are not covered by The Petroleum (Consolidation) Act, 1928 or HS(G)41).

3. GENERAL

- a. Planning, construction, installation, operation and maintenance of filling stations should be in accordance with Health and Safety booklet HS(G)41, Petrol filling stations : Construction and Operation.
- b. When an existing site is to be redeveloped, the developers should be required to carry out an investigation of ground contamination and to undertake remedial works where necessary.
- c. The Agency's policy on Groundwater Protection (References 2 & 3) identifies zones where there is an unacceptably high risk of pollution from certain activities (eg due to the proximity of a potable abstraction). Underground storage of fuel within these zones would pose such a risk, and the Agency will oppose any such new installations.

4. DISPOSAL OF SURFACE WATER

- a. All areas within the curtilage of a filling station should be positively drained on an impervious surface. Any joint in the surface must be adequately sealed and those sealants must be resistant to attack from petrol and oil products.
- b. Under normal circumstances, rainfall derived site drainage will pass to surface waters. If this is a direct discharge to 'controlled waters' the formal consent of the Agency will be required. If the discharge is made to a public surface water sewer the consent of the sewerage undertaker may be necessary. In exceptional cases discharge to the foul sewer may be required.
- c. Surface water drainage from all areas, except uncontaminated roof water, must discharge through a full retention oil/petrol separator with a minimum capacity adequate to contain at least the maximum contents of a compartment of a road tanker likely to deliver petrol at the filling station. Gullies draining to the separator should be of the trapped type to prevent the spread of fire. See Reference 4 for further guidance on oil separators.

A European standard on oil separators is in preparation. Until such time as it is finalised, forecourt separators should comply with the local requirements of the Agency and Petroleum Licensing Authorities, which may include reference to the Draft European Standard (PREN 858-1). By-pass units are not suitable for use on petrol station forecourts.

- d. It is important to recognise that oil separators require regular maintenance. Routine inspections should be undertaken at least every six months and a log maintained of inspection date, depth of oil and any cleaning that is undertaken. Access to the separator should be kept clear and not used for storage.

A separator will not work properly for dissolved (soluble) oils or if detergents or degreasers are present. Such discharges should be drained to the foul sewer.

5. WASTE MANAGEMENT

The correct handling, storage and disposal of all waste is vital if pollution is to be avoided. Under the Duty of Care (Reference 5), the waste producer has a duty to ensure that the waste contractor who removes the waste is registered with the Agency. A written description of the waste must be given to the contractor. Oil separator waste is defined as being a "special waste" and a rigorous consignment note system applies. If there is any doubt, contact the Agency for advice.

6. OTHER EFFLUENTS

- a. All vehicle wash waters should pass to the foul sewer, where available, subject to the consent of the local sewerage undertaker. In the absence of a suitable foul sewer such effluents should be contained in a sealed storage vessel and either recirculated or disposed of off-site. A dedicated area, graded to ensure wash waters are directed to the effluent collection point, should be provided.
- b. Unless forecourts drain to either foul or combined sewers which discharge to a treatment plant, degreasing or steam cleaning of the forecourt shall not take place unless :
 - i. Any liquid is soaked up using absorbent material which is disposed of off-site. Sealing of gullies may be appropriate to prevent liquid or absorbent entering the drainage system.

or

- ii. A closure valve is fitted at the oil separator outlet which is closed during the cleaning operation and all accumulated washings removed for disposal off-site. An alarm should be installed to indicate that the closure valve is in the 'shut' position

7. FUEL STORAGE

All underground fuel storage tanks shall meet the requirements of HS(G)41 or subsequent guidance documents. All above ground fuel storage tanks should comply with current Agency guidelines (Reference 6) and HS(G) 50 and 51 (References 7 & 8).

8. REFERENCES

1. Petrol Filling Stations: Construction and Operation HS(G)41 ISBN 0-11-885449-6
2. Policy and Practice for the Protection of Groundwater ISBN 0-11-310145-7
3. Groundwater Protection Strategy for Scotland: SEPA
4. PPG3: Use and design of oil separators in surface water drainage systems:
5. Waste Management - The Duty of Care - A code of practice. ISBN 0-11-753210-X
6. PPG2: Above ground oil storage tanks

7. Storage of Flammable Liquids in Fixed Tanks HS(G)50 ISBN 0-11-885532-8
8. Storage of Flammable Liquids in Containers HS(G)51 ISBN 0-11-885538-7

References 1,2,5,7 & 8 are all available from The Stationery Office.
References 4 & 6 are available free of charge from the Agencies

APPENDIX EUROPEAN STANDARDS

Manufacturers are already producing separators to the draft standard. These are classified according to their separating efficiency under test conditions. Class I units will normally contain a coalescing filter and will be used when a high level of performance is required. Class II units will be conventional gravity separators. For discharges to the foul sewer a Class II unit would be appropriate. Discharges to surface water may require either a Class I or a Class II unit according to local circumstances. Separators will be fitted with automatic devices such as an audible alarm or a warning light to give warning before the maximum level of oil storage is reached and to close the outlet from the separator when this level is attained.

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The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water in England, Wales, Scotland and Northern Ireland.

EMERGENCY HOTLINE

0800 80 70 60



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