



Introduction

The purpose of this Note is to advise operators of petrol filling stations of the current standards and procedures applicable to the maintenance and testing of all existing sites.

Choosing an Electrical Contractor

Under the provisions of the Electricity at Work Regulations 1989 (EWR) and the Dangerous Substances & Explosive Atmospheres Regulations 2002 (DSEAR), the site operator (licensee) has a legal obligation to ensure that the electrical installation is subjected to an annual inspection and testing programme to verify its continued safety and effectiveness. In addition, the site operator has a duty to employ a competent person (electrical contractor) to carry out the inspection and testing.

In choosing an electrical contractor, the site operator should ensure, so far as is reasonable practicable, that:-

- The contractor is fully conversant with the electrical section of the Blue Guide and BS.7671: 2008 (IEE Wiring Regulations).
- Has been trained and is competent in the installation, maintenance and testing of electrical apparatus for use in potentially explosive atmospheres and is fully conversant with BS EN 60079 14: 2009 'Electrical Installations in Hazardous Areas (other than Mines)'.
• Will provide you with a valid 'electrical installation certificate' and 'inventory of electrical equipment' as detailed in the Blue Guide.

Verification of the Installation

In order to satisfy the maintenance requirements of Regulation 4(2) of EWR, the following items should be inspected and tested on an annual basis:-

1. Electrical equipment in, and associated with, the hazardous areas.
2. Electrical earthing arrangement including the measurement of (PME) diverted neutral current.
3. Electrical equipment associated with Auto gas (LPG), diesel and kerosene where these facilities are located outside the hazardous areas associated with the petrol installation.
4. Portable equipment and other equipment connected to the supply via a flexible cord and/or plug and socket outlet.
5. Circuits feeding car washes, vacuum cleaners and other external equipment used by the public.
6. Circuits to signs and floodlights within the site boundary, which can possibly be touched by the public.

Note: *Only the items detailed in 1, 2 & 3 (LPG) fall within the remit of a Petroleum Inspector for DSEAR enforcement purposes.*

The amount of work and length of time taken by the contractor to verify the electrical installation at an existing site will depend on the size of the premises, the presence of electrical records/drawings, schedules of previous tests and the type of pumps/dispensers. It should be noted that the site must be closed down at some point during the inspection to allow for the inspection and test of the main switchgear and earthing systems. There will also be a necessity to close parts of the site during the inspection and test of equipment in the hazardous areas.

After carrying out an initial survey of the electrical installation and equipment on the site and compiling an inventory check list the contractor should then complete an assessment form to

determine the status of the installation. The inspection/testing can then be carried out and will be in accordance with one of four different programmes (detailed in the Blue Guide) that take account of the certification of the dispensing equipment and the availability of records.

Report and Electrical Installation Certificate

Verifying the condition of the electrical installation/equipment at a petrol filling station has two important purposes:-

- To show that it satisfies the statutory safety requirements of EWR and in particular the requirements appertaining to the storage and dispensing of petrol.
- To provide the site operator with sufficient information to enable him to comply with his statutory duties.

The inspection and test report produced by the electrical contractor should, where applicable, identify the nature, seriousness and necessary remedial actions associated with any defects, deficiencies and items of noncompliance. The urgency or priority of any remedial action the site operator should be taking should be identified in the report.

In completing the electrical installation certificate, the electrical contractor should verify the installation and equipment to one of the following classes:-

- 'A' = SATISFACTORY as far as could be ascertained.
- 'B' = SUITABLE FOR CONTINUED USE subject to the defect(s) being remedied before the date(s) shown on the accompanying Inspection and Test Report & Action plan
- 'C' = UNSATISFACTORY. **Defects observed are of a dangerous nature and require immediate attention.**

The electrical contractor should obtain the signature of the site operator for receipt of the completed electrical installation certificate. Copies of the electrical installation certificate should be kept by both the site operator (3) and the electrical contractor. In the case of the site operator, the documents should be kept in the site records at the premises concerned.

Note: the format of the electrical test certificates previously issued by electrical contractors where reference is made to HS(G)41 should no longer be used. The model of the certificate that the electrical contractor should be using is detailed in Annex 14.9 of the Blue Guide. Certificates previously issued that make reference to HS(G)41 remain valid as a record of the history of the site's electrical installation.

(1) The APEA/IP publication 'Guidance for the Design, Construction, Modification & Maintenance of Petrol Filling Stations Electrical Installations' ISBN 0 85293 313 0 is available from Portland Press. Tel: 01206 796 351. Fax: 01206799 331. Email:sales@portlandpress.com

(2) The Hazardous Area Classification, Part 1 Planning, Construction & Installation Part 3 Electrical Installation sections of the Health & Safety Executive's publication HS(G)41 'Petrol Filling Stations : Construction and Operation' were withdrawn in April 2000

(3) Petroleum Inspectors will need to see written evidence that the electrical system associated with the petroleum installation and where relevant, the Autogas installation are being properly maintained, examined and tested.

Approved Contractors are reminded that the guidance provided with each pad of Petrol Filling Station Electrical Installation Certificates provided by the NICEIC states, amongst other things, that:

The Petrol Filling Station Certificate relates to the electrical installation and other electrical equipment in and around the hazardous areas that are subject to licensing requirements. It makes provision, amongst other things, for recording details and test results of circuits supplying equipment in and adjacent to the hazardous areas, which will be of interest to the Petroleum Enforcing Authority.

It does not cover other circuits, associated switchgear and other equipment that do not encroach into the hazardous areas. These must be the subject of separate verification and certification, in accordance with the requirements of BS 7671.

Generally, it is recommended that an annual electrical inspection be carried out prior to the issuing of 'Petrol Filling Station' certificate and the recording of any deficiencies.

The periodic inspection of electrical circuits and associated equipment not covered by the 'Petrol Filling Station' certificate may not be necessary at yearly intervals. For example, periodic inspection at intervals of between three and five years may be appropriate, depending on all the relevant circumstances including the age of the installation.