203: Electrical installations technology  
**Handout 1: Regulations**

**Learning outcome**

The learner will:

1. know implications of electrical industry regulations.

**Assessment criteria**

The learner can:

* 1. identify **statutory regulations**
  2. identify **non-statutory regulations**
  3. state **implications** of **statutory regulations**
  4. state **implications** of **non-statutory regulations.**

**Range**

**Statutory regulations**: HASAWA, EAWR, ESQCR, PUWER, COSHH, CDM, Manual Handling, PPE, Noise at Work, Environmental Act, DDA, Equal Opportunities.

**Non-statutory regulations**: BS 7671, On-Site Guide, Unite Union Book, Guidance Notes, Codes of Practice.

**Implications**: Prosecution, fine, imprisonment, prohibition notices, improvement notices, dismissal, injury, death, loss of earnings, lost clients, loss of reputation.

**Regulations**

When working in the building services industry, it is necessary to comply with a number of Regulations. These Regulations can be classified as follows:

* statutory
* non‑statutory.

**Acts (of Parliament)** are ‘**statutory**’, ie they are legally binding and therefore enforceable by law. Certain **Regulations** are made under **Acts of Parliament** and, as a result, are also statutory.

Other Regulations have advisory/guidance purposes only and, as a result, they are *‘***non-statutory**’, ie they cannot be enforced by law.

However, non-statutory Regulations are generally considered to reflect standards of good practice and may be cited in a court of law. Additionally, although certain Regulations have no legal status, they are based on Acts/Regulations that are statutory and, consequently, breaking the non-statutory Regulations will often result in breaking one or more statutory Acts or Regulations.

**Statutory Regulations**

A number of statutory Acts and Regulations were identified in Unit 201 under Health and Safety Executive (HSE) legislation. Some of these are repeated here, along with others of which you will need to be aware.

**The Health and Safety at Work etc Act (HASAWA)**

These are statutory and cover all places where work is carried out. The ‘etc’ was added to cover voluntary work, etc. All persons are responsible for their own and others’ safety.

**The Electricity at Work Regulations (EAWR)**

There are currently 33 regulations, of which 1–16 and 29 are the most relevant to most electricians. This is a legal (statutory) document, whereas the wiring Regulations (BS 7671) are not.

**Electricity Safety, Quality and Continuity Regulations (ESQCR)**

The opening up of the electricity markets resulted in there being many more ‘generators’ than the original CEGB, and many more ‘suppliers and ‘distributors’ of electricity and ‘meter operators’ than the original Regional Electricity Authorities. New regulations were necessary to unify engineering, safety and contractual standards for all generators, suppliers, distributors and meter operators. The Regulations seek to safeguard continuity and quality of electricity supplies to all consumers, from whoever they are obtained, and to ensure the safety of the public from the substation installations, as well as electrical distribution via overhead and underground distribution systems.

**Provision and Use of Work Equipment Regulations (PUWER)**

This covers the supply and use of equipment in the workplace. Equipment must be safe to use and used safely by the operatives.

**Control of Substances Hazardous to Health Regulations (COSHH)**

As the name suggests, these Regulations cover anything used in the workplace that could be considered hazardous to health. This would include chemicals, asbestos, cements, oils, sprays, etc.

**Construction (Design and Management) Regulations (CDM)**

The Regulations place specific duties on clients, designers and contractors to rethink their approach to health and safety so that it is taken into account throughout the life of a construction project, from its inception to its subsequent final demolition and removal.

**Manual Handling Operations Regulations (MHOR)**

These Regulations aim to reduce the very large incidence of injury and ill health caused by the manual handling of loads at work.

**Personal Protective Equipment at Work Regulations (PPEWR)**

Requires an assessment of PPE requirements to be carried out, the employer to supply the PPE and the employee to wear the protective equipment.

**Control of Noise at Work Regulations**

Everyone at work could be exposed to noise and suffer temporary or permanent hearing loss. These Regulations place a duty on employers within Great Britain to reduce the risk to their employees’ health by controlling the noise they are exposed to whilst at work.

**Environmental Act**

This is an Act of Parliament that defines the fundamental structure and authority for waste management and control of emissions into the environment.

**Disability Discrimination Act (DDA)**

This has now been repealed and replaced by the Equality Act 2010 (except in Northern Ireland where the Act still applies). Formerly, it made it unlawful to discriminate against people because of their disabilities in relation to employment, the provision of goods and services, education and transport.

**Equality Act**

This act requires equal treatment in access to employment, as well as private and public services, regardless of the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, race, religion or belief, sex and sexual orientation.

**Non-statutory Regulations**

A number of non-statutory Acts and Regulations were identified in Unit 201 under Health and Safety Executive (HSE) legislation. Some of these are repeated here, along with others of which you will need to be aware.

**Requirements for Electrical Installations (BS 7671)**

Published by the Institution of Engineering and Technology (IET), these are the national standard in the United Kingdom for low voltage electrical installations.

The IET (formerly IEE) has published wiring Regulations in the United Kingdom since 1882. Since their 15th edition (1981), these Regulations have closely followed the corresponding international standard IEC 60364. Today, they are largely based on the European Committee for Electrotechnical Standardization (CENELEC) harmonization documents and therefore are technically very similar to the current wiring regulations of other European countries.

In 1992, the IEE Wiring Regulations became British Standard BS 7671 and they are now treated similarly to other British Standards. Although the IET and BSI are non-governmental organisations and the Wiring Regulations are non-statutory, they are referenced in several UK statutory instruments.

**On‑Site Guide**

The On‑Site Guide published by the IET is a handbook that contains some information that is not found in BS7671: 2008 Inc Amendment No 3: 2015. It is meant as a handy notebook reference for electricians working on building sites.

**Unite Union Book**

This book has been published by the trade union **Unite** for over 20 years; *The Electrician’s Guide To Good Electrical Practice* revised to BS 7671:2008 contains a wealth of information for the practising electrician. This information is based on BS 7671 but contains much more and is, additionally, pocket‑sized and therefore ideal to keep in the toolbox or van for reference purposes.

**IET Guidance Notes**

The IET issues a number of Guidance Notes based on different topics. They provide additional clarification on how to implement and comply with BS 7671. Current titles are:

* *Guidance Note 1: Selection and Erection*, 7th Edition
* *Guidance Note 2: Isolation and Switching*, 7th Edition
* *Guidance Note 3: Inspection and Testing*, 7th Edition
* *Guidance Note 4: Protection Against Fire*, 7th Edition
* *Guidance Note 5: Protection Against Electric Shock*, 7th Edition
* *Guidance Note 6: Protection Against Overcurrent*, 7th Edition
* *Guidance Note 7: Special Location*, 5th Edition
* *Guidance Note 8: Earthing and Bonding*, 3rd Edition.

Although all are important, when designing and installing electrical installations, the most popular in the set is *Guidance Note 3: Inspection and Testing*.

**Codes of Practice**

These give practical guidance on compliance. Although failure to comply with an Approved Code of Practice is not an offence in itself, these Codes have special legal status. If an employer/individual faces criminal prosecution under health and safety law, and it is proved that the advice of the Approved Code of Practice has not been followed, a court can regard it as evidence of guilt unless it is satisfied that the employer/individual has complied with the law in some other way. Following Approved Codes of Practice is therefore regarded as best practice.

**Implications of non‑compliance with regulations**

The direct implications of breaking statutory Regulations include the following:

* prosecution
* fine
* imprisonment
* prohibition notices (a work activity or premises must **not** be used until the non‑compliant situation is rectified)
* improvement notices (a work activity or premises can continued to be used but shortcomings must be rectified within a specified time period).

In addition, the non‑direct implications of breaking statutory Regulations include the following:

* dismissal
* injury
* death
* loss of earnings
* lost clients
* loss of reputation.