
Overview

This standard is for people who are required to coordinate the work site for the installation and/or maintenance activities associated with building services engineering systems and is appropriate to the air conditioning, consumer electrical and electronic products, domestic heating, electrotechnical, heating & ventilation, plumbing and refrigeration industries.

The person undertaking the responsibility for the coordination of the work site must be able to oversee, as relevant, the work of other operatives and/or other contractors, and in accordance with relevant industry standards and regulations, the specification, working practices, the working environment and the natural environment confirm:

- the work to be undertaken
- a programme of work with relevant people
- the organisation of the appropriate resources
- that equipment, accessories and components are fit-for-purpose
- that work is carried out safely
- all relevant documentation is completed accurately

The person carrying out this work should know and understand the extent of their role and responsibilities, including how best to motivate, monitor and communicate with others in accordance with organisational procedures.

Please note that industry specific terminology is identified by *italic* text and its explanation and/or definition can be found in the glossary of this standard.

Performance criteria

To carry out this work in accordance with the current versions of the appropriate industry standards and regulations, the specification, working practices, the working environment and the natural environment

- You must be able to:**
- P1 produce a risk assessment and method statement for the work to be carried out on the identified *building services engineering system*
 - P2 allocate duties and responsibilities to *operatives*, when appropriate, to make best use of their competence
 - P3 instruct the *operatives*, where relevant, about their duties and responsibilities clearly and concisely
 - P4 confirm that any instructions given are understood
 - P5 coordinate effectively, when relevant, the work of other contractors
 - P6 monitor, as appropriate, that the work of *operatives* is safe, fit-for-purpose, cost effective and in accordance with:
 - P6.1 industry recognised *working practices*
 - P6.2 the *specification*
 - P6.3 the current versions of *appropriate industry standards and regulations*
 - P7 ensure that safe and appropriate action is taken promptly where a non-compliance is identified during the programme of work
 - P8 ensure that all documentation associated with the installation and/or maintenance work is in accordance with:
 - P8.1 **organisational procedures**
 - P8.2 the current versions of *appropriate industry standards and regulations*
 - P9 liaise with the **relevant people** to resolve issues which are outside the scope of your job role
 - P10 verify that the **equipment, accessories and components** are:
 - P10.1 compatible to the **working environment**
 - P10.2 in accordance with the *specification*
 - P10.3 of the required and correct type
 - P10.4 delivered on time and undamaged
 - P10.5 suitable and safely stored
 - P11 confirm that the installation and/or maintenance work completed is in

accordance with:

P11.1 the *specification*

P11.2 the current versions of *appropriate industry standards and regulations*

Knowledge and understanding

To carry out this work in accordance with the current versions of *the appropriate industry standards and regulations, the specification, working practices, the working environment and the natural environment*

You need to know and understand:

- K1 your role and responsibilities in relation to:
 - K1.1 monitoring and implementing health and safety on the work site
 - K1.2 the work to be undertaken
 - K1.3 allocating roles and responsibilities
 - K1.4 monitoring the work of *operatives*
 - K1.5 liaising with **relevant people**
- K2 how to interpret **organisational procedures** and monitor changing conditions at the work site
- K3 how to coordinate *operatives* you are responsible for in relation to:
 - K3.1 supervision and motivation
 - K3.2 identification of competence
 - K3.3 planning work allocations, duties and responsibilities
- K4 how to communicate effectively with **relevant people**
- K5 the current versions of appropriate industry standards and regulations relevant to the identified *building services engineering system*
- K6 the **organisational procedures** for:
 - K6.1 completing the necessary documentation
 - K6.2 agreeing a programme of work with **relevant people**
 - K6.3 confirming that the installation and/or maintenance work is completed
 - K6.4 identification of competence
- K7 methods that will verify that the **equipment, accessories and components** are:
 - K7.1 compatible to the **working environment**
 - K7.2 in accordance with the *specification*
 - K7.3 of the required and correct type
 - K7.4 delivered on time and undamaged
 - K7.5 suitable and safely stored
- K8 how to manage the available storage facility at the work site

Additional information**Scope related to performance criteria**

The contexts and circumstances below identify where and when the NOS could apply.

1 Working environments (internal and/or external)

- 1.1 commercial
- 1.2 industrial
- 1.3 domestic
- 1.4 agricultural
- 1.5 horticultural
- 1.6 leisure and entertainment
- 1.7 residential medical and care facilities
- 1.8 public highways and parks
- 1.9 *public services establishments*
- 1.10 pre 1919 traditional/historic buildings

2 Organisation procedures

- 2.1 information management
- 2.2 method statement
- 2.3 project management
- 2.4 risk assessment
- 2.5 risk management
- 2.6 implementing and monitoring health and safety requirements and issues
- 2.7 implementing and monitoring issues relating to the *natural environment*
- 2.8 customer services
- 2.9 accident reporting
- 2.10 emergencies
- 2.11 communication with relevant people

3 Examples of equipment, accessories and components

- 3.1 hot and water systems - storage vessels; water heaters; valves; taps; pumps; pipework
- 3.2 space heating systems – boilers; calorifiers; heat emitters; heat

- exchanges; thermostats
- 3.3 ventilators - filters; fans; grilles; dampers; heat exchangers
- 3.4 cooling systems – air handling units; cooling towers; refrigeration units; compressors; heat pumps
- 3.5 fire protection – detector systems; sprinkler heads; drain taps
- 3.6 steam systems – steam traps; boiler feed pumps; receivers and controls
- 3.7 electrical systems – cable and conductor enclosures; wiring/cables/conductors; distribution boards; consumer units; control

4 Relevant people

- 4.1 *customers/clients*
- 4.2 client representatives
- 4.3 supervisors
- 4.4 site/contract manager
- 4.5 other contractors/trades
- 4.6 members of the public
- 4.7 work colleagues

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Glossary**Building services engineering system**

A system that is installed externally or internally to provide climate/environmental control, communication, heating, lighting, operational/process control, power, refrigeration, security or water for a building or structure and/or appliances, equipment and machines therein.

Appropriate industry standards and regulations for:

- electricity at work
- the quality of buildings and building work in England, Northern Ireland, Scotland and Wales
- requirements for electrical installations
- electricity safety, quality and continuity
- working at heights
- managing health and safety at work
- workplace health and safety and welfare
- personal protection at work
- provision and use of work equipment
- manual handling operations
- construction design and management
- controlling noise at work
- controlling asbestos in the work place
- controlling substances hazardous to health
- recycling and disposal of waste electrical and electronic equipment

Operatives

Individuals who undertake activities on a work site in the air conditioning, consumer electrical and electronic products, domestic heating, electrotechnical, heating & ventilation, plumbing or refrigeration industries, and are deemed competent to carry-out their job role or are supervised when carrying out their job role.

Specification

A verbal and/or documented instruction that is an explicit set of requirements for

installing, maintaining and/or servicing identified systems, equipment or products, to be satisfied by materials, components, design, processes, procedures, data management and/or service(s).

Clients and customers

- purchaser of installation and/or maintenance services
- other trades and services at the work site
- colleagues within the same organisation
- architect
- contract manager
- main/sub-contractor
- consultant
- local authority representatives
- work colleagues

Traditional/Historic buildings

buildings built pre-1919

A **public services establishment** can be a:

- hospital/medical centre
- school/college/university
- museum
- library
- prison
- military base
- car park
- church or other place of worship

Natural environment

The climate, weather and natural resources that effect and are affected by human life and economic activity

External Links

Links correct at time of NOS approval:

- Health & Safety Executive Documents <http://www.hse.gov.uk/pubns>
- The quality of buildings and building work in England
<https://www.gov.uk/government/policies/providing-effective-building-regulations-so-that-new-and-altered-buildings-are-safe-accessible-and-efficient>
- The quality of buildings and building work in Wales
<http://wales.gov.uk/topics/planning/buildingregs/?lang=en>
- The quality of buildings and building work in Northern Ireland
<http://www.dfpni.gov.uk/building-regulations>
- The quality of buildings and building work in Scotland
<http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards>
- British Standard 7671 – Requirements for Electrical Installations
<http://www.theiet.org/resources/wiring-regulations/>
- Carriage of dangerous goods authorisations
<https://www.gov.uk/government/publications/carriage-of-dangerous-goods-authorisations>
- The requirements and information on microgeneration
<https://www.gov.uk/government/publications/microgeneration-strategy>
- The requirements for the processing of information
www.legislation.gov.uk/ukpga/1998/29/contents
- Guidance on equal opportunities in the work place www.gov.uk/equality-act-2010-guidance

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Relevant occupations	Highway Electrical Systems Installer; Installation Electrician; Maintenance Electrician; Air Conditioning Installation Engineer; Air Conditioning Service and Maintenance Engineer; Electrical Trades; Electrician; H&V Ductwork Erector; H&V Ductwork Installer; H&V Pipe Fitter/Welder; Heating and Ventilating Pipework Installation Operative; Heating and Ventilating Ductwork Installer; Heating and Ventilating Service and Maintenance Operative; Heating and Ventilating Welder; Highway Electrical Systems Commissioning Electrician; Highway Electrical Systems Service & Maintenance Electrician; Plumbers; Refrigeration Operative; Heating and Ventilation Service and Maintenance Engineer; Heating and Ventilation Industrial and Commercial Systems Engineer; Refrigeration Engineer
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