

# COSVR291 - SQA Unit Code H1PH 04

## Erect steel frame walls and floors



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### Overview

This standard is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting materials, components and equipment
- 4 erecting prefabricated and/or in-situ wall and floor structures

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### Performance criteria

- You must be able to:*
- P1 interpret the given information relating to the work and resources to confirm its relevance
  - P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe work practices
  - P3 select the required quantity and quality of resources for the methods of work
  - P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
  - P5 comply with the given contract information to carry out the work efficiently to the required specification
  - P6 complete the work within the allocated time, in accordance with the programme of work

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### Knowledge and understanding

*You need to know and understand:*

#### Performance Criteria 1

##### Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented
- K2 the types of **information**, their source and how they are interpreted
- K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

#### Performance Criteria 2

##### Safe work practices

*You need to know and understand:*

- K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied
- K5 how **emergencies** should be responded to and who should respond
- K6 the organisational **security procedures** for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why and when **personal protective equipment (PPE)** should be used

#### Performance Criteria 3

##### Selection of resources

*You need to know and understand:*

- K9 the characteristics, quality, uses, limitations and defects associated with the **resources** and how defects should be rectified
- K10 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K11 the organisational procedures to select **resources**, why they have been developed and how they are used
- K12 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

#### Performance Criteria 4

##### Minimise the risk of damage

*You need to know and understand:*

- K13 how to **protect work** from damage and the purpose of protection
- K14 why **disposal of waste** should be carried out safely and how it is achieved

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*You need to know and understand:*

### **Performance Criteria 5**

#### **Meet the contract specification**

- K15 how **methods of work**, to meet the specification, are carried out and **problems** reported
- K16 how **maintenance** of tools and equipment is carried out

*You need to know and understand:*

### **Performance Criteria 6**

#### **Allocated time**

- K17 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

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### Additional Information

#### Scope/range related to performance criteria

##### Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, and manufacturers' information related to the work to be carried out

##### Performance Criteria 2

- 2 safe use of personal protective equipment (PPE) and access equipment to carry out the activity, in accordance with legislation and/or organisational requirements
- 3 safe use and storage of tools and equipment

##### Performance Criteria 3

- 4 selection of resources associated with own work
  - 4.1 materials, components and fixings
  - 4.2 tools and equipment

##### Performance Criteria 4

- 5 protection of the work and its surrounding area from damage
- 6 minimise damage and maintain a clean work space
- 7 disposal of waste in accordance with legislation

##### Performance Criteria 5

- 8 demonstration of work skills to measure, mark out, fit, finish, position and secure
- 9 use and maintain hand tools, portable power tools and ancillary equipment
- 10 erect the following to given working instructions
  - 10.1 ring beams
  - 10.2 pre-manufactured and/or in-situ load bearing walls
  - 10.3 prefabricated and/or in-situ non-load bearing walls
  - 10.4 lattice beams and/or C section joists
  - 10.5 pre-manufactured and/or in-situ intermediate floors
  - 10.6 floor decking
  - 10.7 hot rolled columns and beams

##### Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

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### Scope/range related to knowledge and understanding

#### Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

#### Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 2.1 fires, spillages, injuries

#### Hazards

- 3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

#### Information

- 4 drawings, specifications, schedules, method statements, manufacturers' information and regulations governing buildings

#### Legislation and official guidance

- 5 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working in the workplace, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

#### Maintenance

- 6 operative care of hand tools and/or portable power tools and ancillary equipment

#### Methods of work

- 7 application of knowledge for safe work practices, procedures and skills, relating to the method/area of work and materials used, to
  - 7.1 erect manually and by crane ring beams, load bearing and non-load bearing walls, lattice beams, C section joists, HR beams and columns
  - 7.2 lay intermediate floors (metal deck and/or timber based)
  - 7.3 form connections associated with steel frame construction
  - 7.4 work with crane lifted loads
  - 7.5 use hand tools, power tools and equipment
- 8 team work and communication
- 9 needs of other occupations associated with steel frame erection

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### **Personal protective equipment (PPE)**

10 occupational use, types, purpose of each type and work situations

### **Problems**

11 those arising from information, resources and methods of work

11.1 own authority to rectify

11.2 organisational reporting procedures

### **Programme**

12 types of progress charts, timetables and estimated times

13 organisational procedures for reporting circumstances which will affect the work programme

### **Protect work**

14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

### **Resources**

15 materials, components and equipment relating to types, quantity, quality and sizes of standard and/or specialist

15.1 internal and external walls, ring beams, lattice beams, HR columns, HR beams, metal decking, metal sections, steel fixings, timber-based decking fixings, DPC and associated items

15.2 hand and/or powered tools and equipment

16 methods of calculating quantity, length, area and wastage associated with the method/procedure to erect steel frame walls and floors

### **Security procedures**

17 site, workplace, company and operative

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**Relevant occupations** Construction Operatives

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**Suite** Innovative/Modern Methods of Construction

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**Key words** Lattice-beams; Metal-deck; Columns; Hot-rolled; Prefabricated; Intermediate-floors; Load-bearing