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**Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting materials, components, tools and ancillary equipment to control direct and guide the operation of plant or machinery not being used for lifting operations but including plant or machinery used as work platforms.

This standard is for people required to control, direct and guide the operation of plant or machinery; it is **not** for directing movement between locations or the slinging and signalling of plant or machinery for lifting and transferring loads in lifting operations. It does include people directing and guiding the operations of plant or machinery used as work platforms. It can be used by operatives, supervisors and managers

**Performance criteria**

- You must be able to:
- P1 interpret the given operating information relating to the work, resources and the use of plant or machinery and confirm its relevance
  - P2 organise with others the sequence in which the work is to be carried out
  - P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
  - P4 select plant or machinery resources for the methods of work and operations to be carried out
  - P5 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
  - P6 comply with the given contract information to carry out the work efficiently to the required specification
  - P7 complete the work within the allocated time, in accordance with the programme of work

**Knowledge and understanding**

**Performance Criteria 1**

**Interpretation of information**

You need to know and understand:

- 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**

**Organise with others**

You need to know and understand:

- K4 **communication** of ideas between team members
- K5 organisation of **resources** in conjunction with the progress of work
- K6 the **skills** required to carry out the work

**Performance Criteria 3**

**Safe work practices**

You need to know and understand:

- K7 the level of understanding operatives must have of **information** for relevant, current **legislation, Approved Codes of Practice and official guidance** and how it is applied
- K8 how **emergencies** should be responded to and who should respond
- K9 the organisational **security procedures** for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how **health and safety control equipment** should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current **legislation and official guidance**

**Performance Criteria 4**

**Selection of resources**

You need to know and understand:

- K13 the characteristics, quality, uses, sustainability, limitations and defects associated with plant **resources** and how defects should be rectified
- K14 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K15 the organisational procedures to select **resources**, why they have been developed and how they are used
- K16 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

**Performance Criteria 5**

**Minimise the risk of damage**

You need to know and understand:

- K17 how to **protect work** from damage and the purpose of protection
- K18 why **disposal of waste** should be carried out safely and how it is achieved

**Performance Criteria 6**

**Meet the contract specification**

You need to know and understand:

- K19 how **methods of work**, to meet the specification, are carried out and **problems** reported
- K20 how **maintenance** of plant and/or machinery, tools and equipment is carried out

**Performance Criteria 7**

**Allocated time**

You need to know and understand:

- K21 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

**Additional Information**

**Scope/range related to performance criteria**

**Performance Criteria 1**

- 1 interpretation of specifications, schedules, risk assessments and manufacturers' information related to controlling, directing and guiding the operation of plant or machinery not being used for lifting operations but including plant or machinery used as work platforms

**Performance Criteria 2**

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

**Performance Criteria 3**

- 4 avoidance of risk by complying with the given safety information relating to at least four of the following
  - 4.1 methods of work
  - 4.2 safe use of health and safety control equipment
  - 4.3 safe use and storage of tools
  - 4.4 safe use and storage of equipment
  - 4.5 specific risks to health

**Performance Criteria 4**

- 5 selection of resources associated with own work
  - 5.1 hand tools and ancillary equipment
  - 5.2 signalling and communication equipment

**Performance Criteria 5**

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

**Performance Criteria 6**

- 9 demonstration of work skills to measure, gauge, estimate, interpret, judge, explain, prepare, command, direct, guide, indicate, inform, instruct, sign, position, move, secure, signal and relay
- 10 use and maintain hand tools, ancillary equipment, signalling and communication equipment
- 11 control, direct and guide the plant or machinery not being used for lifting operations but including plant or machinery used as work platforms to given working instructions, relating to the following
  - 11.1 hand signals
  - 11.2 hand signalling equipment
  - 11.3 verbal and electronic communication equipment

**Performance Criteria 7**

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

**Scope/range related to knowledge and understanding**

**Communication**

- 1 discussions, sketches, electronic data and briefings, signalling and radio communication

**Disposal of waste**

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

**Emergencies**

- 3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 3.1 fires, spillages, injuries
  - 3.2 emergencies relating to occupational activities

**Hazards**

- 4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

**Health and safety control equipment**

- 5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
  - 5.1 collective protective measures
  - 5.2 local exhaust ventilation (LEV)
  - 5.3 personal protective equipment (PPE)
  - 5.4 respiratory protective equipment (RPE)

**Information**

- 6 drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information and official guidance for controlling, directing and guiding the operations of plant and machinery

**Legislation and official guidance**

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



**Maintenance**

- 8 operative care of hand tools, ancillary equipment signalling and communication equipment

**Methods of work**

- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
  - 9.1 identify the differences between directing and guiding operations, directing and guiding movement and slinging and signalling
  - 9.2 interpret work plans
  - 9.3 assess and determine the operation of plant and machinery not being used for lifting operation but including plant or machinery used as work platforms, to include own position, visibility, ground conditions and features, proximity hazards and weight limits
  - 9.4 identify the operational characteristics and limitations of plant and machinery, width, length, height, radius, reach, capacity
  - 9.5 recognise blind-spots, potential crush zones and other limitations to operator visibility
  - 9.6 control, direct and guide the operation of plant and machinery not being used for lifting operations to extract, excavate, construct, form, receive, transport, access, lay, distribute, compact and process, sweep, clean and clear
  - 9.7 assess and determine the movement of extracted and excavated materials or commodities including the formation and removal of stockpiles, unloading, discharging and loading
  - 9.8 control, direct and guide the operation of plant and machinery not being used in lifting operations on rough, uneven terrain and in areas of restricted movement
  - 9.9 ensure the integrity of equipment, structures, materials and components close to operations while directing and guiding
  - 9.10 recognise and utilise measurement and operation monitoring aids, pegs, tapes, strings, lines and levels, electronic guidance equipment, global positioning systems and laser marking devices

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**Methods of work (Continued)**

- 9.11 check measurements
- 9.12 signal and communicate following recognised and agreed operational procedures
- 9.13 recognise requirements for working on public highways
- 9.14 recognise and determine when specific skills and knowledge are required and report accordingly
- 9.15 use hand tools and ancillary equipment
- 10 team work and communication
- 11 needs of other occupations associated with controlling, directing and guiding the operation of plant and machinery not being used in lifting operations but including plant or machinery used as work platforms

**Problems**

- 12 those arising from information, resources and methods of work
  - 12.1 own authority to rectify
  - 12.2 organisational reporting procedures

**Programme**

- 13 types of progress charts, timetables and estimated times
- 14 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

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

**Resources**

- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
  - 16.1 signalling and communication equipment
  - 16.2 hand tools and ancillary equipment
  - 16.3 electronic guidance equipment, global positioning systems and laser marking devices
  - 16.4 measuring equipment (pegs, tapes, strings, lines and levels)
- 17 identify weight and bearing pressures, quantity, length, area and volume associated with the method/procedure for directing and guiding the operation of plant and machinery

**Security procedures**

- 18 site, workplace, company and operative

**Skills**

- 19 own occupation and occupations related to the work

## COSVR760 – SQA Unit Code HM4E 04

### Control, direct and guide the operation of plant or machinery

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