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## Overview

This unit applies to designers who go onto site and get involved in monitoring the construction process and health and safety requirements.

It is about ensuring the quality of the work. You must be able to confirm what quality you want, implement systems for carrying out the work to the agreed standards, deal with contingencies and non-compliance, and gather feedback to identify what can be improved. It is about working to programme.

You must be able to implement systems for monitoring progress, to deal with resource problems, delays and disruptions, and to continually seek ways of improving progress.

It is about controlling costs and organising payments. You must be able to implement cost control systems; deal with variations, identify cost savings; and prepare information for instructions and certificates.

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## Monitor projects in built environment design

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### Performance criteria

#### Monitor health and safety requirements in your area of responsibility

*You must be able to:*

- P1 identify your personal responsibilities and liabilities under health and safety legislation
- P2 ensure that your organisation's written health and safety policy statement is clearly communicated to all people in your area of responsibility and other relevant parties
- P3 ensure that the health and safety policy statement is put into practice in your area of responsibility and is subject to review as situations change and at regular intervals and the findings passed to the appropriate people for consideration
- P4 ensure regular consultation with people in your area of responsibility or their representatives on health and safety issues.
- P5 seek and make use of specialist expertise in relation to health and safety issues
- P6 ensure that a system is in place for identifying hazards and assessing risks in your area of responsibility and that prompt and effective action is taken to eliminate or control identified hazards and risks
- P7 ensure that systems are in place for effective monitoring, measuring and reporting of health and safety performance in your area of responsibility
- P8 show continuous improvement in your area of responsibility in relation to health and safety performance.
- P9 make health and safety a priority area in terms of informing planning and decision-making in your area of responsibility.
- P10 demonstrate that your own actions reinforce the messages in your organisation's health and safety policy statement.
- P11 ensure that sufficient resources are allocated across your area of responsibility to deal with health and safety issues.
- P12 develop a culture within your area of responsibility which puts health and safety first.

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### **Monitor contracts against agreed quality standards**

- You must be able to:*
- P13 identify quality standards from available information and pass them to people responsible for their implementation, before they start work
  - P14 confirm the responsibilities which individuals have for maintaining quality standards
  - P15 implement systems for inspecting and controlling the quality of work and record the outcomes
  - P16 check, regularly, that work conforms to the design requirements and the specified quality standards
  - P17 identify work which fails to meet the requirements and specified quality standards and recommend corrective action
  - P18 inform people responsible about significant variations in quality standards, programme and safety implications, and suggest the decisions which they need to make and actions they need to take
  - P19 identify improvements from feedback received and recommend them to people responsible

### **Monitor contract progress against agreed programmes**

- You must be able to:*
- P20 implement systems to monitor and record the progress of the contract against the agreed programmes
  - P21 identify inadequately and inappropriately specified resources and inform people responsible
  - P22 identify and quantify any deviations from planned progress which have occurred, or which may occur, and which could disrupt the programme
  - P23 investigate the circumstances of any deviations thoroughly and recommend appropriate corrective action
  - P24 recommend options which are most likely to minimise increases in cost and time and help the contract progress, and pass these on to people responsible
  - P25 regularly inform people responsible about progress, changes to the operational programme and resource needs
  - P26 identify improvements from feedback received and recommend them to people responsible

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### **Monitor contract costs and information for certification**

- You must be able to:*
- P27 implement appropriate contract cost control systems which are able to provide early warning of problems
  - P28 ensure that accurate quantities and cost data is calculated and presented in an agreed format to the people responsible
  - P29 identify and investigate any variations thoroughly and recommending appropriate action with people responsible
  - P30 develop and implement systems and processes for identifying opportunities for cost savings and recommend them to people responsible
  - P31 inspect and check work against the contract requirements, record any variations and review for a certification decision to be made

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## Monitor projects in built environment design

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### Knowledge and understanding

*You need to know and understand:*

#### Monitor health and safety requirements in your area of responsibility

- K1 how to identify personal responsibilities and liabilities under health and safety legislation (understanding)
- K2 how to ensure that your organisation's written health and safety policy statement is clearly communicated to all people in your area of responsibility and other relevant parties (application)
- K3 how to ensure that the health and safety policy statement is put into practice in your area of responsibility and is subject to review as situations change and at regular intervals and the findings passed to the appropriate people for consideration (application)
- K4 how to ensure regular consultation with people in your area of responsibility or their representatives on health and safety issues (application)
- K5 how to seek and make use of specialist expertise in relation to health and safety issues (application)
- K6 how to ensure that a system is in place for identifying hazards and assessing risks in your area of responsibility and that prompt and effective action is taken to eliminate or control identified hazards and risks (application)
- K7 how to ensure that systems are in place for effective monitoring, measuring and reporting of health and safety performance in your area of responsibility (application)
- K8 how to show continuous improvement in your area of responsibility in relation to health and safety performance (application)
- K9 how and why to make health and safety a priority area in terms of informing planning and decision-making in your area of responsibility (analysis)
- K10 how and why to demonstrate that your own actions reinforce the messages in your organisation's health and safety policy statement (synthesis)
- K11 how to ensure that sufficient resources are allocated across your area of responsibility to deal with health and safety issues (application)
- K12 how and why to develop a culture within your area of responsibility which puts health and safety first (synthesis)

### **Monitor contracts against agreed quality standards**

*You need to know and understand:*

- K13 how to identify quality standards from available information (understanding)
- K14 how to pass quality standards on to people responsible for implementing them before they start work (application)
- K15 how to confirm the responsibilities which individuals have for maintaining quality standards (application)
- K16 how to implement systems for inspecting and controlling the quality of work and record the outcomes (application)
- K17 how to check that work conforms to the design requirements and the specified quality standard (application)
- K18 how to identify work which fails to meet the requirements and specified quality standards (understanding)
- K19 how and why to recommend corrective action where work fails to meet the requirements and specified quality standards (synthesis)
- K20 how to inform people responsible about significant variations in quality standards, programme and safety implications (application)
- K21 how and why to suggest the decisions which people responsible need to make about significant variations in quality standards and the actions they need to take (synthesis)
- K22 how to identify improvements from feedback received (understanding)
- K23 how and why to recommend improvements to people responsible (synthesis)

### **Monitor contract progress against agreed programmes**

*You need to know and understand:*

- K24 how to implement systems to monitor and record the progress of the contract against the agreed programmes (application)
- K25 how to identify inadequately and inappropriately specified resources (understanding)
- K26 how to inform people responsible about inadequately and inappropriately specified resources (application)
- K27 how to identify any deviations from planned progress which have occurred, or which may occur, and which could disrupt the programme (understanding)

- K28 how and why to quantify any deviations from planned progress (analysis)
- K29 how and why to investigate the circumstances of any deviations (analysis)
- K30 how and why to recommend corrective action (synthesis)
- K31 how and why to recommend options which are most likely to minimise increases in cost and time and help the contract progress (synthesis)
- K32 how to pass on options which are most likely to minimise increases in cost and time and help the contract progress (application)
- K33 how do you regularly inform people responsible about progress, changes to the operational programme and resource needs (application)
- K34 how to identify improvements from feedback received (understanding)
- K35 how and why to recommend improvements from feedback received to people responsible (synthesis)

### **Monitor contract costs and information for certification**

*You need to know and understand:*

- K36 how to implement appropriate contract cost control systems which are able to provide early warning of problems (application)
- K37 how to ensure that accurate quantities and cost data is calculated and presented to people responsible (application)
- K38 how to identify as variations in quantities and cost data (understanding)
- K39 how and why to investigate any variations (analysis)
- K40 how and why to recommend appropriate action with people responsible (synthesis)
- K41 how and why to develop systems and processes for identifying opportunities for cost savings (synthesis)
- K42 how to implement systems and processes for identifying opportunities for cost savings (application)
- K43 how and why to recommend opportunities for cost savings to people responsible (synthesis)
- K44 how and why to inspect work against contract requirements and record any variations (analysis)
- K45 how to check work against contract requirements and record any variations (application)

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K46 how and why to review work for a certification decision to be made  
(analysis)



## Additional Information

### Scope/range

#### Monitor health and safety requirements in your area of responsibility

##### 1. Liabilities under health and safety legislation:

- 1.1. CDM regulations and Approved Codes of Practice
- 1.2. current health, safety and welfare regulations
- 1.3. Construction and Building Regulations
- 1.4. civil law and criminal law
- 1.5. duty of care

##### 2. Relevant parties:

- 2.1. clients
- 2.2. CDM
- 2.3. HSE
- 2.4. other designers
- 2.5. project and construction managers
- 2.6. contractors and specialist contractors
- 2.7. operators and maintainers

##### 3. Hazards:

- 3.1. falls from height
- 3.2. slips, trips and falls
- 3.3. hit by falling or moving objects
- 3.4. manual handling
- 3.5. health issues
- 3.6. power sources
- 3.7. hazardous substances
- 3.8. trapped by something collapsing or overturning
- 3.9. confined spaces
- 3.10. fire
- 3.11. obstructions
- 3.12. moving vehicles
- 3.13. public access

**Monitor contracts against agreed quality standards**

**4. Quality standards:**

- 4.1. project specifications
- 4.2. British, European international Standards
- 4.3. Codes of Practice
- 4.4. organisation standards
- 4.5. trade advisory guidance and best practice
- 4.6. environmental standards
- 4.7. client standards
- 4.8. certification and accreditation of products, systems, personnel
- 4.9. dimensional control criteria

**5. People responsible:**

- 5.1. the client
- 5.2. contractors
- 5.3. consultants
- 5.4. sub-contractors
- 5.5. suppliers

**6. Systems:**

- 6.1. visual inspection
- 6.2. comparison with design requirements
- 6.3. comparison with standard documentation
- 6.4. checking manufacturers documentation
- 6.5. checking materials supply
- 6.6. sampling and mock-ups
- 6.7. testing
- 6.8. site inspection reports
- 6.9. contractors reports
- 6.10. meetings
- 6.11. checking delivery notes
- 6.12. dimension checks

**7. Work:**

- 7.1. materials and components and their use
- 7.2. methods of construction
- 7.3. completed elements

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### **Monitor contract progress against agreed programmes**

#### **8. Systems to monitor and record:**

- 8.1. visual inspection
- 8.2. resource records
- 8.3. site inspection reports
- 8.4. contractors' reports
- 8.5. written, graphical and electronic records of actual work against programmed work
- 8.6. site meetings
- 8.7. organisational procedures
- 8.8. comparison with project requirement

#### **9. Programmes:**

- 9.1. bar charts
- 9.2. critical path
- 9.3. method statements
- 9.4. meeting records

#### **10. Resources:**

- 10.1. people
- 10.2. plant and equipment
- 10.3. materials and components
- 10.4. time
- 10.5. specialist services

#### **11. People responsible:**

- 11.1. the client
- 11.2. contractors
- 11.3. consultants
- 11.4. sub-contractors
- 11.5. suppliers

#### **12. Deviations:**

- 12.1. resource shortages and delivery times
- 12.2. design problems and constraints
- 12.3. lack of essential construction information
- 12.4. construction errors
- 12.5. scope of work
- 12.6. inclement weather

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12.7. physical constraints

12.8. environmental

12.9. force majeure

### **13. Corrective action:**

13.1. restore progress in accordance with agreed programme

13.2. agree new completion dates

13.3. securing additional resources

13.4. altering planned work

### **Monitor contract costs and information for certification**

#### **14. Quantities and cost data:**

14.1. materials

14.2. completed work

14.3. dayworks

14.4. periodic valuations

#### **15. Appropriate action:**

15.1. agree cost changes

15.2. agree quality changes

15.3. agree programme changes

#### **16. Opportunities for cost saving:**

16.1. waste minimisation

16.2. resource management and logistics

16.3. applications of new technologies and materials

16.4. alternative sources and types of materials

16.5. standardisation

#### **17. People responsible:**

17.1. the client

17.2. line managers

17.3. contractors

17.4. consultants

17.5. sub-contractors

17.6. suppliers

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## Monitor projects in built environment design

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**Relevant occupations** Civil engineers; graphic designers; architectural technologists; town planning technicians; draughtspersons; building surveyors

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