

COSBEDCL4019

Manage quality and cost variations in conservation projects



Overview

This unit is about developing and implementing systems to monitor and record contract quality and progress in line with project cost control systems.

You will need to select work methods that make the best use of available resources and which meets other essential criteria. You will need to check conforms to design requirements and specified quality standards and guidance.

In instances where work does not comply with legal and statutory requirements you will need to take appropriate corrective action. You will need to be able to collect, calculate and prepare cost data.

You will also need to identify and investigate any variations in cost data and implement appropriate corrective action.

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Performance criteria

Manage projects against agreed quality standards

You must be able to:

- P1 identify and interpret **objectives and approach** and **quality standards and guidance** from available information and pass them to **people** responsible for their implementation, before they start work
- P2 specify, clearly and unambiguously, the responsibilities with **people** responsible for maintaining **quality standards and guidance**
- P3 set up **monitoring systems** for inspecting and controlling the quality of **work** and record the outcomes
- P4 check, regularly, that **work** conforms to the design requirements and the specified **quality standards and guidance**
- P5 identify **work** which fails to meet the requirements and specified **quality standards and guidance** and implement corrective action
- P6 ask for unacceptable **quality standards and guidance** to be corrected and notify decision makers if this is not done within a reasonable time
- P7 inform decision makers regularly about significant variations in **quality standards and guidance**, programme and safety implications, and suggest the decisions which they need to make and actions they need to take
- P8 identify situations which do not comply with **legal and statutory requirements**, investigate the circumstances thoroughly and take appropriate corrective action
- P9 identify improvements from feedback received and recommend them to decision makers
- P10 agree amendments to the contract **quality standards and guidance** and record them accurately

Manage project and costs

You must be able to:

- P11 develop and implement appropriate **project cost control systems** which are able to provide early warning of problems
- P12 collect **cost data** regularly, record it correctly and pass it on to the people who need it in time for them to be able to use it
- P13 calculate the correct work values and **cost data** from estimates of work quantity and payment rates
- P14 prepare accurate **cost data** and present it in a format which will help people to make decisions
- P15 identify variations and trends in **cost data** and quantify and cost them
- P16 investigate any variations thoroughly and agree and implement **appropriate action** with **decision makers** which will restore costs and expenditure to budget
- P17 develop and implement systems and processes for identifying **contract variations in costs** and recommend them to **decision**

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makers

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Knowledge and understanding

You need to know and understand:

Manage projects against agreed quality standards

- K1 what to identify as the **objectives and approach** and **quality standards and guidance** (understanding)
- K2 how and why to investigate the circumstances of situations that do not comply with **legal and statutory requirements** (analysis)
- K3 how to ask for unacceptable **quality standards and guidance** to be corrected and notify decision makers if they are not corrected within a reasonable time (application)
- K4 how to inform decision makers about significant variations in **quality standards and guidance**, programme and safety implications (application)
- K5 what to identify as situations which do not comply with **legal and statutory requirements** (understanding)
- K6 how to record amendments to the contract **quality standards and guidelines** (application)
- K7 how and why to suggest the decisions which decision makers need to make about significant variations in **quality standards and guidance** and actions they need to take (synthesis)
- K8 how and why to specify the responsibilities with **people** responsible for maintaining **quality standards and guidance** (evaluation)
- K9 how and why to agree amendments to the contract **quality standards and guidance** (evaluation)
- K10 how and why to interpret **objectives and approach** and **quality standards and guidance** (analysis)
- K11 how to pass **objectives and approach, quality standards and guidance** on to **people responsible** for implementing them before they start work (application)
- K12 what to identify as improvements from feedback received (understanding)
- K13 how and why to recommend improvements to decision makers (synthesis)
- K14 how and why to specify the responsibilities which individuals have for maintaining **quality standards and guidance** (evaluation)
- K15 what to identify as **work** which fails to meet the requirements and specified **quality standards and guidance** (understanding)
- K16 how to check that **work** conforms to the design requirements and the specified **quality standard and guidance** (application)
- K17 how to implement corrective action where **work** fails to meet the requirements and specified **quality standards and guidance** (application)
- K18 how and why to set up **systems** for inspecting and controlling the quality of **work** and recording the outcomes (synthesis)
- K19 how to take corrective action in cases of non compliance with **legal and statutory requirements** (application)

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Manage project and costs

You need to know and understand:

- K20 how to implement appropriate **project cost control systems** which are able to provide early warning of problems (application)
- K21 how and why to develop appropriate **project cost control systems** which are able to provide early warning of problem (synthesis)
- K22 what to identify as variations and trends in **cost data** (understanding)
- K23 how to collect and record **cost data** and pass on the data to the people who need it (application)
- K24 how to calculate the correct work values and **cost data** from estimates of work quantity and payment rates (application)
- K25 how to prepare and present accurate cost variations and trends in **cost data** in a format which will help people to make decision (application)
- K26 how and why to quantify and cost variations in cost trends in (analysis)
- K27 how and why to investigate any variations (analysis)
- K28 how to implement **appropriate action** with **decision makers** which will restore costs and expenditure to budget (application)
- K29 how and why to agree **appropriate action** with **decision makers** which will restore costs and expenditure to budget (evaluation)
- K30 how to implement systems and processes for identifying **contract variations in costs** (application)
- K31 how and why do develop and recommend to **decision makers** systems and processes for identifying **contract variations in costs** (synthesis)

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Scope/Range

Manage projects against agreed quality standards

- 1 Objectives and approach:**
 - 1.1 conservation
 - 1.2 restoration
 - 1.3 preservation
 - 1.4 refurbishment
 - 1.5 maintenance work
 - 1.6 consolidation (prevention of deterioration)
 - 1.7 reparation
 - 1.8 repair
 - 1.9 retrofit/eco upgrade
 - 1.10 scheduled preventative
 - 1.11 unscheduled corrective
 - 1.12 emergency maintenance
 - 1.13 disaster planning
- 2 Quality standards and guidance:**
 - 2.1 statutory requirements
 - 2.2 project specifications
 - 2.3 British Standards
 - 2.4 International Standards
 - 2.5 Codes of Practice
 - 2.6 organisation standards
 - 2.7 trade advisory guidance and best practice
 - 2.8 benchmarks
- 3 People:**
 - 3.1 the client
 - 3.2 contractors
 - 3.3 consultants
 - 3.4 sub-contractors
 - 3.5 suppliers
 - 3.6 workforce
- 4 Systems:**
 - 4.1 visual inspection
 - 4.2 comparison with design requirements
 - 4.3 comparison with standard documentation
 - 4.4 checking manufacturers' documentation
 - 4.5 checking delivery notes
 - 4.6 sampling and mock-ups
 - 4.7 testing
 - 4.8 site inspection reports

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- 4.9 contractors' reports
- 4.10 meetings
- 4.11 dimension checks
- 4.12 supply chain management
- 4.13 organisational procedures
- 5 Work:**
 - 5.1 materials and components and their use
 - 5.2 methods of construction
- 6 Legal and statutory requirements (Performance in 2 of the following. Knowledge about other range items is not required):**
 - 6.1 the development and use of land
 - 6.2 structures/buildings
 - 6.3 environmental impact
 - 6.4 conservation/heritage
 - 6.5 energy and carbon use
 - 6.6 advertisements
 - 6.7 trees/hedgerows

Manage project and costs

- 7 Project cost control systems:**
 - 7.1 contractual procedures and meetings
 - 7.2 operational procedures and meetings
 - 7.3 open book accounting
 - 7.4 electronic recording
- 8 Cost data:**
 - 8.1 materials and quantities
 - 8.2 plant
 - 8.3 people
 - 8.4 sub-contractors
 - 8.5 dayworks
 - 8.6 variations
 - 8.7 indirect costs
 - 8.8 periodic valuations
 - 8.9 retention sums
 - 8.10 forecasts of expenditure
 - 8.11 performance information
 - 8.12 contract programme and progress
- 9 Appropriate action:**
 - 9.1 agree cost and time charges
 - 9.2 agree quality charges
 - 9.3 agree programme charges

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- 10** **Decision makers:**
 - 10.1 the client
 - 10.2 contractors
 - 10.3 consultants
 - 10.4 regulators
 - 10.5 suppliers
 - 10.6 internal management

- 11** **Contract variations in costs:**
 - 11.1 waste reduction and management
 - 11.2 project management
 - 11.3 resource management and logistics
 - 11.4 applications of new technologies
 - 11.5 energy management
 - 11.6 water usage
 - 11.7 recycling/reusing materials
 - 11.8 alternative sources and types of materials
 - 11.9 plant and labour
 - 11.10 variations in quality
 - 11.11 standardisation
 - 11.12 off-site construction

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