

COSBEDMO14 - SQA Unit Code HG43 04

Prepare specifications in built environment design management



Overview

This unit is concerned with the drafting of specification for designs.

It covers methods of specifications, derived from standard sources and modified as necessary. These describe how the finished products should be constructed. You must be able to decide what sources are suitable, modify them where necessary, check the coherence and consistency of the finished drafts, and have them verified.

It covers performance specifications, which describe how the finished product should perform in use. You must know what you want, be able to draft a suitable document, and ensure that it is checked and verified.

**Performance
criteria**

You must be able to:

Prepare prescriptive design specifications

- P1 select a **specification format** document which is suitable for the **project requirements** and the **project stage**
- P2 structure the **specification** to suit the circumstances and requirements of the project
- P3 produce a **specification** which is based on identified, valid **source information** which has been verified
- P4 select, and where necessary amend, technical clauses from relevant sources, which define the quality, type and standard of the materials, components and finished work
- P5 format the **specification** so that it is concise, **referenced** and cross-referenced accurately
- P6 check that the **specification** is consistent with the current design and other design documentation, and update it promptly and accurately when the design changes
- P7 obtain necessary **verification** for the content and presentation of **specifications**

Prepare performance specifications

You must be able to:

- P8 select a **performance specification** document which is suitable for the **purpose** and the **project stage**
- P9 check that the **specification** is consistent with design and related documents, where separate, and that it does not include duplicate and contradictory **information**
- P10 produce a **specification** which conforms with identified, applicable, current **source information**
- P11 identify where the current **source information** is valid and obtain accurate and supplementary **information**
- P12 identify, analyse and detail the design objectives and appropriate functional performance requirements
- P13 define appropriate performance criteria, methods of assessment and verification
- P14 include with the **specification** the data used to calculate the performance requirements
- P15 structure the **specification** so that it is concise, **referenced** and cross-referenced accurately
- P16 check that the **specification** is consistent with the current design and other design documentation, and update it promptly and accurately when the design changes
- P17 obtain necessary **checks and approvals** for the content and presentation of **specifications**

Knowledge and understanding

You need to know and understand:

Prepare prescriptive design specifications

- K1 how and why to **select a specification format** document which is suitable for the **project requirements** and the **project stage** (evaluation)
- K2 how to structure the **specification** to suit the circumstances and requirements of the project (application)
- K3 how to produce a **specification** based on identified, valid verified **source information** (application)
- K4 how and why to select technical clauses from standard sources, which define the quality, type and standard of the materials, components and finished work (evaluation)
- K5 how to amend technical clauses from standard sources, which define the quality, type and standard of the materials, components and finished work (application)
- K6 how to format the **specification** (application)
- K7 how to check that the **specification** is consistent with the current design and other design documentation (application)
- K8 how to update the **specification** promptly and accurately when the design changes (application)
- K9 how to obtain necessary **verification** for the content and presentation of **specifications** (application)

Prepare performance specifications

You need to know and understand:

- K10 how to select a **performance specification** format document which is suitable for the **purpose** and the **project stage**
- K11 how to check that the **specification** is consistent with design and related documents, where separate, and that it does not include duplicate and contradictory **information** (application)
- K12 how to produce a **specification** which conforms with identified, applicable, current **source information** (application)
- K13 what to identify as valid current **source information** (understanding)
- K14 how to obtain accurate and supplementary **source information** (application)
- K15 what to identify as the design objectives and appropriate functional performance requirements (understanding)
- K16 how and why to analyse and detail the design objectives and appropriate functional performance requirements (analysis)
- K17 how and why to detail the design objectives and appropriate functional performance requirements (evaluation)
- K18 how and why to define appropriate performance criteria, methods of assessment and verification (evaluation)

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Knowledge and understanding

- K19 how to include with the **specification** the data used to calculate the performance requirements (application)
- K20 how to structure the **specification** so that it is concise, **referenced** and cross-referenced accurately (application)
- K21 how to check that the **specification** is consistent with the current design and other design documentation (application)
- K22 how to update the **specification** promptly and accurately when the design changes (application)
- K23 how to obtain necessary **checks and approvals** for the content and presentation of **specifications** (application)

Scope/range

Prepare prescriptive design specifications

- 1 Specification format:
 - 1.1 original document
 - 1.2 outline specification
 - 1.3 National Specification systems
 - 1.4 industry/practice standards
 - 1.5 elemental and trade
 - 1.6 phase
- 2 Project requirements:
 - 2.1 to obtain consents and permissions
 - 2.2 procurement
 - 2.3 contract
 - 2.4 production and installation
- 3 Project stage:
 - 3.1 Stage 3 (Definition)
 - 3.2 Stage 4 (Design)
 - 3.3 Stage 5 (Build and Commission)
- 4 Source information:
 - 4.1 design information (digital models, documents, drawings, graphical and non-graphical electronic data files)
 - 4.2 statutory regulations
 - 4.3 EU and British Standards
 - 4.4 codes of practice
 - 4.5 technical literature
 - 4.6 industry product certification
- 5 Referenced against:
 - 5.1 standard method of measurement/new rule of measurement
 - 5.2 Common Arrangement
 - 5.3 CI/SfB
- 6 Verification:
 - 6.1 format
 - 6.2 presentation
 - 6.3 accuracy

Scope/range

- 6.4 technical content
- 6.5 completeness
- 6.6 referencing
- 6.7 cross-referencing and correlation with associated documents
- 6.8 spelling, grammar and punctuation
- 6.9 status
- 6.10 current

Prepare performance specifications

- 7 Type of performance specification:
 - 7.1 original document
 - 7.2 outline document
 - 7.3 National Building Specification
 - 7.4 elemental and trade
 - 7.5 phase
- 8 Purpose of documents:
 - 8.1 to obtain consents and permissions
 - 8.2 procurement
 - 8.3 contract
 - 8.4 production and installation
- 9 Project stage:
 - 9.1 Stage 3 (Definition)
 - 9.2 Stage 4 (Design)
 - 9.3 Stage 5 (Build and Commission)
- 10 Source information:
 - 10.1 design information design information (digital models, documents, drawings, graphical and non-graphical electronic data files)
 - 10.2 statutory regulations
 - 10.3 EU and British Standards
 - 10.4 codes of practice
 - 10.5 technical literature
 - 10.6 industry product certification
- 11 Referenced against:
 - 11.1 standard method of measurement/new rule of measurement

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Scope/range

- 11.2 Common Arrangement
- 11.3 CI/SfB
- 12 Checks and approvals:
 - 12.1 format
 - 12.2 presentation
 - 12.3 accuracy
 - 12.4 technical content
 - 12.5 completeness
 - 12.6 referencing
 - 12.7 cross-referencing and correlation with associated documents
 - 12.8 spelling, grammar and punctuation
 - 12.9 status

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