



Australian Government

CPCPMS5012 Design sound attenuated hydraulic services

Release: 2

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Modification History

- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Knowledge Evidence formatted for clarity.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
Supersedes and is equivalent to CPCPMS5012A Design sound attenuated hydraulic services. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to design sound attenuated hydraulic services, determine relevant installation details and prepare specifications for a range of residential, commercial and industrial buildings 29 floors in height or greater.

The unit requires application of technical skills and knowledge to evaluate design requirements, plan and detail system components, design and size systems and prepare operational and compliance documentation.

The role involves interaction with architects, builders, suppliers, clients and relevant planning authorities and requires a sound understanding of applicable legislation, standards and codes.

This unit is suitable for experienced tradespeople such as hydraulic design consultants or persons in a supervisory capacity in relation to plumbing services who work on new or existing sites.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-requisite Unit

Nil.

Unit Sector

Plumbing and Fire Services

Elements and Performance Criteria

Elements describe the Performance criteria describe what needs to be done to

essential outcomes.	demonstrate achievement of the element.
1 Evaluate design parameters.	1.1 Establish scope of work for sound attenuated hydraulic services for wide span and high-rise building projects. 1.2 Determine design requirements from relevant Australian standards, codes, plans, specifications and the client brief. 1.3 Identify sound transmission categories and levels from relevant acts, codes and standards and evaluate for the relevant premises. 1.4 Evaluate sound transmission values of building and structural elements and materials. 1.5 Analyse and apply the National Construction Code (NCC), statutory and regulatory requirements and Australian standards for the design of sound attenuated hydraulic services. 1.6 Apply sustainability principles and concepts throughout the design process. 1.7 Establish performance requirements considering safety of system users or building occupants. 1.8 Interpret manufacturer requirements and trade and technical manuals to comply with design parameters. 1.9 Conduct research to outline design parameters. 1.10 Determine factors that contribute to quality, safety and time efficiency. 1.11 Conduct cost-benefit analysis comparing a range of pipe materials and system designs.
2 Plan and detail system components.	2.1 Identify and analyse causes of noise generation in hydraulic services. 2.2 Plan layout of sound-attenuated pipework systems. 2.3 Perform system calculations for a range of sound attenuated hydraulic services. 2.4 Attenuate sound for pumped hydraulic systems.

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| | 2.5 | Plan pipe supports for a range of applications. |
| | 2.6 | Specify approved materials and installation requirements for sound attenuated hydraulic services. |
| 3 Design and size systems. | 3.1 | Design and size sound attenuated hydraulic services for a range of applications. |
| | 3.2 | Identify and document material combinations to achieve sound attenuation requirements. |
| | 3.3 | Attenuate sound for pump installations. |
| | 3.4 | Design and evaluate sound attenuated hydraulic services using calculations and computer software packages. |
| 4 Prepare documentation. | 4.1 | Prepare a client brief for the preferred design. |
| | 4.2 | Prepare plans and specifications for a range of sound attenuated hydraulic services. |
| | 4.3 | Prepare reports on sound attenuated hydraulic services for a range of applications. |
| | 4.4 | Prepare testing and commissioning schedule. |
| | 4.5 | Produce operation and maintenance manual. |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCPMS5012A Design sound attenuated hydraulic services.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>