



Australian Government

CPCCON3056 Conduct concrete pump delivery operations

Release: 3

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Modification History

- Release 3 Updated reference to general construction induction training program.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Performance Criteria 3.1 rectified.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
New unit.

Application

This unit of competency specifies the skills and knowledge required to support construction projects by conducting concrete pump delivery operations using a vehicle-borne pumping system. It includes operating the concrete pump delivery vehicle, delivering concrete using the pump system and carrying out required operator checks and maintenance.

This unit covers work usually done by the line or hose-hand and does not include boom operations requiring a licence to conduct high-risk work.

A person who has achieved this unit of competency is expected to take responsibility for organising and completing these tasks with a high degree of self-direction.

Licensing, legislative, regulatory or certification requirements apply to this unit of competency. Candidates must hold a current, nationally recognised licence required to operate the concrete pump delivery vehicle. For further information, check with the relevant regulatory authority.

Completion of the general construction induction training program, specified in the Safe Work Australia model *Code of Practice: Construction Work*, is required by anyone carrying out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

Pre-requisite Unit

CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry

Unit Sector

Concreting

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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| 1 Plan and prepare to conduct concrete pump delivery operations. | 1.1 Interpret work instructions and specifications for concrete pump delivery operations and clarify requirements with relevant persons.

1.2 Plan work tasks to comply with relevant legislation, regulations, standards, codes, work health and safety (WHS), environmental and workplace requirements.

1.3 Select and fit required personal protective equipment (PPE).

1.4 Inspect worksite, identify hazards, assess risks and apply risk controls, including required signage and barricades.

1.5 Select plant, tools and equipment, check for serviceability and rectify or report any faults. |
| 2 Conduct concrete pump delivery system pre-operational checks. | 2.1 Carry out pre-start, start-up, park and shut-down procedures, including emergency shutdown on vehicle and pump in accordance with manufacturer and site requirements.

2.2 Check vehicle controls and functions for serviceability and rectify or report faults.

2.3 Check distribution system components prior to use in accordance with workplace requirements.

2.4 Clean and service hoppers prior to use in accordance with workplace requirements. |
| 3 Operate concrete pump delivery vehicle. | 3.1 Identify hazards and assess risks associated with vehicle positioning and operations and use safe operating techniques to minimise risk.

3.2 Manage engine power to ensure efficiency of concrete pump vehicle platform movements and to minimise damage to engine and gears.

3.3 Coordinate engine power with gear selection ensuring smooth transition and operation within torque range. |

- 3.4 Operate vehicle in accordance with work instructions and workplace requirements.
 - 3.5 Monitor road and traffic conditions accounting for traffic flow, distance and load, and ensuring no injury to people or damage to property, equipment or load.
 - 3.6 Bring vehicle to a halt smoothly using engine retarder, gears and brakes to minimise vehicle wear and tear.
- 4 Deliver concrete with concrete pump system.
 - 4.1 Identify hazards and assess risks associated with positioning and operating pump delivery components and use safe operating procedures to minimise risk.
 - 4.2 Position pump delivery vehicle at site to best service delivery task and provide access to concrete-supply vehicle.
 - 4.3 Prepare, deploy and check delivery platform stabilisers in accordance with manufacturer requirements for operation and safety.
 - 4.4 Check and position delivery system components securely and safely, in accordance with manufacturer requirements.
 - 4.5 Test-run pumping systems and prepare for use in accordance with manufacturer requirements.
 - 4.6 Coordinate with supply vehicle operator, safe supply of bulk concrete mix to hopper.
 - 4.7 Operate pump delivery system and vary positioning to maintain concrete delivery to required destination.
 - 4.8 Withdraw pump delivery system safely at completion of delivery task.
- 5 Carry out operator maintenance.
 - 5.1 Park vehicle safely, prepare for maintenance and shutdown in accordance with manufacturer and workplace requirements.
 - 5.2 Carry out basic diagnostic procedures on vehicle and pump system components in accordance with manufacturer requirements and record outcomes.

- 5.3 Remove and replace defective parts safely and effectively in accordance with manufacturer and workplace requirements.
 - 5.4 Carry out regular scheduled maintenance tasks in accordance with manufacturer and workplace requirements.
- 6 Clean up.
 - 6.1 Clear work area and dispose of, reuse or recycle materials in accordance with regulatory and workplace requirements.
 - 6.2 Clean, check, maintain and store vehicle, bowl, tools and equipment in accordance with manufacturer and workplace requirements.

Foundation Skills

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

Unit Mapping Information

No equivalent unit.

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>

Assessment Requirements for CPCCON3056 Conduct concrete pump delivery operations

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by conducting concrete pump delivery operations at two different sites.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- characteristics, technical capabilities and limitations of concrete pump delivery vehicle systems:
 - adaptors
 - construction activity sequences relating to bulk concreting operations
 - line establishment techniques and operation of delivery system
 - pumps and pumping system operations
 - hoses
 - lines
- compliance requirements of legislation, regulations, codes and Australian Standards relevant to concrete pump delivery operations:
 - environmental protection and waste disposal
 - work health and safety (WHS)
- concrete mixes:
 - block-fill
 - pool-mix
 - topping
 - slab

- footing
- curb and guttering
- health risks associated with silica dust exposure
- operational and maintenance requirements of concrete pump delivery systems:
- basic diagnostic procedures
 - how and when to activate emergency shut-down procedures
 - key components and controls and their functions
 - operator maintenance procedures
 - pre-start, start-up, park and shut-down
 - techniques for positioning pumping system to best deliver concrete
- plans and specifications used to interpret requirements for concrete pump delivery
- workplace requirements for conducting concrete pump delivery operations:
 - cleaning up the work area
 - maintaining and storing materials, plant, tools and equipment
 - quality
 - reporting problems
 - safety requirements, including personal protective equipment (PPE).

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to documentation, specifications, vehicle, concrete pump delivery system, materials, tools and equipment required to achieve the performance criteria and performance evidence.

Links

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