



Australian Government

CPCCON3052 Conduct concrete boom delivery operations

Release: 2

CPCCON3052 Conduct concrete boom delivery operations

Modification History

Release 2 Updated reference to general construction induction training program.

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and is equivalent to CPCCCO3052 Conduct concrete boom delivery operations

Application

This unit of competency specifies the skills and knowledge required to support construction projects by conducting concrete boom delivery operations using a vehicle-borne pumping system. It covers systems with a minimum of two boom stages.

It includes:

- conducting operational checks
- safe and effective operation of the vehicle and pumping system
- safe establishment, use and monitoring of the boom distribution system
- conducting operator maintenance and work finalisation activities.

This unit of competency supports the role of those who deliver concrete placing booms to residential, commercial or civil construction sites, and who would be expected to take responsibility for organising and completing these tasks with a high degree of self direction.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry meets this requirement*.

Licensing, legislative, regulatory or certification requirements apply to this unit of competency in some states and territories. For further information, check with the relevant regulatory authority.

Pre-requisite Unit

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

Unit Sector

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 boom delivery operations. | 1.1 Interpret work instructions, plans and specifications for concrete boom delivery operations and clarify requirements with relevant persons. |
| | 1.2 Plan all work to comply with relevant legislation, regulations, standards, codes, work health and safety, environmental and workplace requirements. |
| | 1.3 Select and fit personal protective equipment appropriate for work activities. |
| | 1.4 Inspect work site, assess hazards 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 boom delivery system pre-operational checks. | 2.1 Carry out pre-start, start-up, park and shut-down including emergency shut-down procedures 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 boom delivery vehicle. | 3.1 Identify hazards 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 truck to a halt smoothly using engine retarder, gears and brakes to minimise vehicle wear and tear.
- 4 Deliver concrete with concrete boom delivery system.
 - 4.1 Identify and assess hazards associated with positioning and operating boom delivery components and use safe operating procedures to minimise risk.
 - 4.2 Position boom 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 to 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 safe supply of bulk concrete mix to the hopper with supply vehicle operator.
 - 4.7 Operate boom delivery system and vary its positioning to maintain concrete delivery to the required destination.
 - 4.8 Withdraw boom delivery system safely at completion of delivery task.
- 5 Carry out operator maintenance of concrete boom delivery vehicle.
 - 5.1 Park boom delivery vehicle safely, prepare for maintenance and shut down in accordance with manufacturer and workplace requirements.
 - 5.2 Carry out basic diagnostic procedures on vehicle, pump and boom system components in accordance with

- manufacturer requirements, and record outcomes in accordance with workplace requirements.
- 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, plant, tools and equipment in accordance with manufacturer and workplace requirements.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- communication skills to interpret non-verbal communication such as hand signals.

Unit Mapping Information

Supersedes and is equivalent to CPCCCO3052 Conduct concrete boom delivery operations

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 CPCCON3052 Conduct concrete boom delivery operations

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Performance Evidence

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

Knowledge Evidence

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

- workplace and regulatory requirements for conducting concrete boom delivery operations under applicable Commonwealth, state or territory work health and safety (WHS) legislation, Australian Standards and codes of practice:
 - job safety and environmental analyses (JSEAs)
 - safe work method statements (SWMSs)
 - safety data sheets (SDSs)
 - safety manuals and instructions for plant, tools and equipment
 - signage
 - environmental and work site safety plans
 - workplace and equipment safety requirements, including hazard reporting requirements and correct handling of equipment faults
 - reporting problems
- plans and specifications used to interpret requirements for conducting concrete boom delivery operations
- characteristics, technical capabilities and limitations of concrete boom delivery vehicle systems:
 - adaptors
 - boom components
 - hoses
 - boom-mounted conveyors

- lines
- concrete boom delivery vehicle systems processes:
 - operational, maintenance and basic diagnostic procedures and use of hand tools
 - pumps and pumping system operations
 - safe operating techniques in all terrain
 - boom and line establishment techniques and operation of delivery system
 - construction activity sequences relating to bulk concreting operations
- concrete mixes:
 - block-fill
 - pool-mix
 - topping
 - slab
 - footing
 - curb and guttering
- site and equipment safety requirements:
 - knowing when and how to activate emergency shut-down procedures
 - overhead safety requirements relating to boom operations
 - site isolation and traffic control responsibilities and authorities
 - requirements for shut down, inspection, minor maintenance and repairs, and regular scheduled maintenance in accordance with manufacturer requirements
- requirements for cleaning up the work area, vehicle, plant, tools and equipment, and materials storage and environmentally friendly waste management.

Assessment Conditions

Assessors must satisfy 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:

- industry-standard equipment required to perform the tasks specified in performance evidence
- appropriate workplace information and records, including policies, procedures and legislative requirements.

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