



Australian Government

CPCCCO3052 Conduct concrete boom delivery operations

Release: 1

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Modification History

Release 1.

Supersedes and equivalent to CPCCCO3052A Conduct concrete boom delivery operations.

The unit of competency was updated to the Standards for Training Packages 2012.

This version first released with CPC Construction, Plumbing and Services Training Package Version 4.0.

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 to residential, commercial or civil construction sites. 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.

It applies to concreters working as members of a team with at least a moderate degree of autonomy. They would be expected to complete routine activities without close supervision.

Licensing, legislative, regulatory or certification requirements apply to this unit of competency in all states and territories except Tasmania. Relevant state and territory regulatory authorities should be consulted to confirm these requirements.

Pre-requisite Unit

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

Unit Sector

Construction

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1. Plan and	1.1 Review and clarify concrete boom delivery operations task.

prepare to conduct concrete boom delivery operations.	1.2 Review task specifications and check to make sure they are in accordance with legislation, regulations and codes of practice. 1.3 Review work health and safety (WHS) requirements for the task in accordance with safety plans and policies. 1.4 Identify safety signage and barricade requirements. 1.5 Review environmental requirements for the task in accordance with environmental plans and legislative requirements. 1.6 Determine plant, tools, equipment required to carry out task.
2. Conduct concrete boom delivery system pre-operational checks.	2.1 Erect identified safety signage and barricades, and fit personal protective equipment (PPE). 2.2 Carry out pre-start, start-up, park and shut-down procedures on the vehicle and pump, including emergency shut-down, in accordance with manufacturers' and site-specific requirements. 2.3 Check vehicle controls and functions for serviceability, rectify any faults and report in vehicle log book. 2.4 Check distribution system components prior to use. 2.5 Clean and service hoppers prior to use.
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 truck in accordance with work instructions and workplace operating procedures. 3.5 Monitor road and traffic conditions, taking into account road standards, traffic flow, distance and load, and ensuring no injury to people or damage to property, equipment, loads and facilities. 3.6 Bring truck to a halt smoothly, using the engine retarder, gears and brakes to minimise wear and tear on vehicle.
4. Deliver concrete with concrete boom delivery system.	4.1 Identify and analyse hazards associated with positioning and operating boom delivery components, and use safe operating techniques to minimise risk. 4.2 Position boom delivery vehicle at site where it can best service the delivery task and provide access to concrete-supply vehicles. 4.3 Prepare, deploy and check delivery platform stabilisers to

	manufacturers' specifications for operation and safety. 4.4 Check and position delivery system components securely and safely, in accordance with manufacturers' specifications. 4.5 Test-run pumping systems and prepare for use in accordance with manufacturers' specifications. 4.6 Coordinate safe supply of bulk concrete mix to the hopper with supply vehicle operators. 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, and prepare for maintenance and shut down in accordance with manufacturers' specifications and organisational requirements. 5.2 Carry out Inspection and fault-finding on the vehicle, pump and boom system components in accordance with manufacturers' specifications, and record outcomes in accordance with workplace requirements. 5.3 Remove and replace defective parts safely and effectively in accordance with manufacturers' specifications and workplace requirements. 5.4 Carry out regular programmed maintenance tasks in accordance with manufacturers' and workplace requirements.
6. Clean up after completing concrete boom delivery operation.	6.1 Clear work area and dispose of, re-use or recycle materials in accordance with legislation, regulations, codes of practice and task requirements. 6.2 Clean, check, maintain and store plant, tools and equipment in accordance with manufacturers' specifications and workplace requirements.

Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

- oral and non-verbal communication skills to:
 - determine requirements
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - follow instructions

- identify and accurately report any faults to appropriate personnel
- use and interpret non-verbal communication such as hand signals.

Unit Mapping Information

Supersedes and is equivalent to CPCCCO3052A 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 CPCCCO3052 Conduct concrete boom delivery operations

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Performance Evidence

To demonstrate competency in this unit, a person must conduct concrete boom delivery system operations at two different sites.

In doing this, the person must meet the performance criteria for this unit.

Knowledge Evidence

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

- jurisdictional work health and safety (WHS) and environmental legislation and regulations for conducting concrete boom delivery operations including:
 - job safety analyses (JSAs)
 - safe work method statements (SWMSs)
 - safety data sheets (SDSs)
 - safety manuals and instructions for plant, tools and equipment
 - signage and barricades
 - personal protective equipment (PPE)
 - environmental and work site safety plans
 - workplace and equipment safety requirements, including hazard reporting requirements and correct handling of equipment faults
- requirements of Australian Standards and the National Construction Code (NCC) relating to conducting concrete boom delivery operations
- workplace requirements for all aspects of operating concrete boom delivery systems, including understanding general construction terminology, interpreting work orders and reporting problems
- interpreting project plans and specifications for conducting concrete boom delivery operations, including requirements for safe handling of materials
- state or territory regulatory requirements relating to boom delivery system operations
- characteristics, technical capabilities and limitations of concrete boom delivery vehicle systems, including:

- adaptors
- boom components
- hoses
- boom-mounted conveyors
- lines
- concrete boom delivery vehicle systems processes, including:
 - 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, including:
 - 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 manufacturers' recommendations
- requirements for cleaning up work area, materials storage and environmentally friendly waste management, and cleaning up vehicle, tools and equipment.

Assessment Conditions

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

Assessment of performance must be undertaken in the workplace or in a simulated workplace environment. Tasks are to be performed to the level of proficiency and within the time limits expected in a workplace.

Assessors are responsible for ensuring that the person demonstrating competency has access to:

- concrete boom delivery system and concrete boom delivery system operations at two different sites
- appropriate documents, materials, tools equipment and PPE currently used in industry
- requirements of appropriate sections of legislation and regulations
- relevant workplace policies and procedures.

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