

Draft 0.1

This is our work-in-progress update to CPCCCO3052 Conduct concrete boom delivery operations: <https://training.gov.au/Training/Details/CPCCCO3052>.

We are working with industry experts to ensure the updated unit:

- meets current and anticipated industry needs
- complies with current Standards for Training Packages
- is written in clear understandable English.

Information on our training package review and development process is available here:

<http://www.artibus.com.au/project-stage>.

Summary of changes from current endorsed unit:

- change to title to reflect modified outcome (boom and high risk work removed)
- code changed for consistency with other updated units
- elements and performance criteria modified to remove boom and clarify requirements
- performance evidence modified to remove boom
- knowledge rationalised to clarify requirements
- new knowledge points:
 - characteristics, technical capabilities and limitations of concrete pump delivery vehicle systems:
 - adaptors
 - pumps
 - hoses
 - lines
 - concrete mixes:
 - block-fill
 - pool-mix
 - topping
 - slab
 - footing
 - curb and guttering
 - 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
- assessment conditions: standard wording changed and modified requirement for candidates

Unit of Competency

CPCCON3052 Conduct concrete pump delivery operations

Modification history

Release	Comments
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.
2	Supersedes and non-equivalent to CPCCCO3052 Conduct concrete boom delivery operations. Title and outcome changed to remove boom and high risk work. This version first released with CPC Construction, Plumbing and Services Training Package Version 6.0.

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 done by the concreting line or hose-hand and does not include boom operations.

A person who has achieved this unit of competency would be 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 in some states and territories. For further information, check with the relevant regulatory authority.

Prerequisite Unit

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

Unit Sector

Concreting

Elements and Performance Criteria

1. Plan and prepare to conduct concrete pump delivery operations.	<ul style="list-style-type: none">1.1 Interpret work instructions and specifications for concrete pump 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.
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<p>2. Conduct concrete pump delivery system pre-operational checks.</p>	<p>2.1 Carry out pre-start, start-up, park and shut-down including emergency shut-down procedures on vehicle and pump in accordance with manufacturers' instructions and site requirements.</p> <p>2.2 Check vehicle controls and functions for serviceability and rectify or report faults.</p> <p>2.3 Check distribution system components prior to use in accordance with workplace requirements.</p> <p>2.4 Clean and service hoppers prior to use in accordance with workplace requirements.</p>
<p>3. Operate concrete pump delivery vehicle.</p>	<p>3.1 Identify hazards associated with vehicle positioning and operations and use safe operating techniques to minimise risk.</p> <p>3.2 Manage engine power to ensure efficiency of concrete pump vehicle platform movements and to minimise damage to engine and gears.</p> <p>3.3 Coordinate engine power with gear selection ensuring smooth transition and operation within torque range.</p> <p>3.4 Operate vehicle in accordance with work instructions and workplace requirements.</p> <p>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.</p> <p>3.6 Bring truck to a halt smoothly using engine retarder, gears and brakes to minimise vehicle wear and tear.</p>
<p>4. Deliver concrete with concrete pump system.</p>	<p>4.1 Identify and assess hazards associated with positioning and operating pump delivery components and use safe operating procedures to minimise risk.</p> <p>4.2 Position pump delivery vehicle at site to best service delivery task and provide access to concrete-supply vehicle.</p> <p>4.3 Prepare, deploy and check delivery platform stabilisers to manufacturers' instructions for operation and safety.</p> <p>4.4 Check and position delivery system components securely and safely, in accordance with manufacturers' instructions.</p> <p>4.5 Test-run pumping systems and prepare for use in accordance with manufacturers' instructions.</p> <p>4.6 Coordinate safe supply of bulk concrete mix to hopper with supply vehicle operator.</p> <p>4.7 Operate pump delivery system and vary positioning to maintain concrete delivery to required destination.</p> <p>4.8 Withdraw pump delivery system safely at completion of delivery task.</p>
<p>5. Carry out operator maintenance.</p>	<p>5.1 Park vehicle safely, prepare for maintenance and shut down in accordance with manufacturers' instructions and workplace requirements.</p> <p>5.2 Carry out basic diagnostic procedures on vehicle and pump system components in accordance with manufacturers' instructions, and record outcomes in accordance with workplace requirements.</p> <p>5.3 Remove and replace defective parts safely and effectively in accordance with manufacturers' instructions and workplace requirements.</p>

	5.4 Carry out regular scheduled maintenance tasks in accordance with manufacturers' instructions 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 manufacturers' instructions and workplace requirements.

Foundation skills

Candidates require:

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

Unit Mapping Information

Supersedes and is non-equivalent to CPCCCO3052 Conduct concrete boom delivery operations

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCCON3052 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 system 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
- concrete mixes:
 - block-fill
 - pool-mix
 - topping
 - slab
 - footing
 - curb and guttering
- 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 conducting concrete pump delivery operations
- requirements of Commonwealth and state or territory work health and safety and environmental legislation and regulations, standards and codes of practice relevant to concrete pump delivery operations:

- hazard identification and risk control
 - job safety analyses
 - personal protective equipment
 - safe work method statements
 - safety manuals and instructions for vehicle, tools and equipment
- workplace requirements for conducting concrete pump delivery operations:
 - cleaning up
 - maintaining and storing materials, plant, tools and equipment
 - quality
 - reporting problems.

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, concrete pump delivery system, materials, tools and equipment required to achieve the performance evidence.

Links

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