



**Australian Government**

# **RIIMPO320D Conduct civil construction excavator operations**

**Release: 3**

# RIIMPO320D Conduct civil construction excavator operations

## Modification History

| Release | Comment                                                                                                                                                                                                                                                                                                      |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | This unit replaces RIIMPO320B Conduct civil construction excavator operations.                                                                                                                                                                                                                               |
| 2       | Performance Evidence wording amended; removed repetition from Performance Criteria; amend reference to Licensing requirements in Unit Application.                                                                                                                                                           |
| 3       | Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm. |

## Application

This unit describes a participant's skills and knowledge required to conduct civil construction excavator operations in Civil construction.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

## Unit Sector

Civil construction

## Elements and Performance Criteria

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Plan and prepare for excavator operations | <p>1.1 Access, interpret and apply excavator operations documentation and ensure the work activity is compliant</p> <p>1.2 Obtain, read, interpret, clarify and confirm work requirements</p> <p>1.3 Identify and address risks, hazards and environmental issues and implement control measures</p> <p>1.4 Select and wear personal protective equipment appropriate for work activities</p> <p>1.5 Obtain, identify and implement traffic management signage requirements</p> <p>1.6 Select, and check for faults, equipment and/or attachments for</p> |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | <p>work activities</p> <p>1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency</p>                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2. Operate excavator                      | <p>2.1 Carry out pre-start, start-up, park, shutdown and secure equipment procedures</p> <p>2.2 Coordinate activities with others at the site prior to commencement of, and during, the work activity</p> <p>2.3 Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment</p> <p>2.4 Drive and operate excavator, and modify the operating technique to meet changing work conditions</p>                                                                                                                   |
| 3. Lift, carry and place materials        | <p>3.1 Conduct communication practices associated with transportation and lifting of materials</p> <p>3.2 Establish weight of load and ensure it is within safe operational limits of the machine</p> <p>3.3 Select, attach and use slings and lifting gear in accordance with safe working load requirements</p> <p>3.4 Position machinery and ensure stability and locate to effectively shift materials according to job specifications</p> <p>3.5 Shift load safely and effectively</p> <p>3.6 Move load using hand/audible/communication signals</p> |
| 4. Select, remove and fit attachments     | <p>4.1 Select attachment for the task</p> <p>4.2 Remove and fit attachment according to manufacturer's manual and site requirements</p> <p>4.3 Test attachment and ensure correct fitting and operation</p> <p>4.4 Use attachment in accordance with recommendations and design limits</p> <p>4.5 Remove, clean and store attachments in designated location</p>                                                                                                                                                                                          |
| 5. Relocate the excavator                 | <p>5.1 Prepare excavator for relocation</p> <p>5.2 Move excavator safely between worksites, observing relevant codes and traffic management requirements</p> <p>5.3 Load and unload machine from float/trailer</p>                                                                                                                                                                                                                                                                                                                                        |
| 6. Carry out machine operator maintenance | <p>6.1 Prepare machine for maintenance</p> <p>6.2 Conduct inspection and fault finding</p> <p>6.3 Carry out scheduled maintenance tasks</p>                                                                                                                                                                                                                                                                                                                                                                                                               |

|                                    |     |                                                     |
|------------------------------------|-----|-----------------------------------------------------|
|                                    | 6.4 | Process written maintenance records                 |
| 7. Conduct housekeeping activities | 7.1 | Clear work area and dispose of or recycle materials |
|                                    | 7.2 | Process records                                     |

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

## Unit Mapping Information

RIIMPO320B Conduct civil construction excavator operations

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

# Assessment Requirements for RIIMPO320D Conduct civil construction excavator operations

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## Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of excavator operations including:
  - conducting prestart checks prior to commencing operations and shutdown procedures on completion of operations
  - carrying out vehicle refuelling requirements and procedures
  - driving and operating the equipment to site conditions
  - applying safe work practices and identifying and reporting all potential hazards, risks and environmental issues
  - applying problem solving and troubleshooting techniques
  - applying leveling techniques
  - selecting and using the required tools and equipment
  - working safely around other machines and personnel
  - safely parking and securing of equipment
  - applying methods of changing machine attachments
- works effectively with others to undertake and complete excavator operations that meet all of the required outcomes including:

- using a range of communications techniques and equipment to convey information to others
- maintaining written and verbal reporting requirements and procedures
- organising work activities to meet all task requirements
- communicating clearly and concisely with others to receive and clarify work instructions
- demonstrates completion of conducting civil construction excavator operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
  - completion of operations to specification using a variety of material types including:
    - loading
    - lifting and carrying materials
    - bulk excavation
    - backfilling
    - trench excavation
    - stockpiling
    - battering
    - benching
    - site clean up
  - fitting and removal of a variety of attachments selected from the following:
    - tilt bucket
    - buckets
    - lifting device
    - vibrating compaction wheel
    - ripper/tyne
    - compaction plate
    - compaction wheel
    - rock breaker
    - auger

## Knowledge Evidence

The candidate must demonstrate knowledge of the following when conducting civil construction excavator operations:

- identifying, interpreting ground conditions
- communicating and performing isolation procedures
- identifying equipment processes, technical capability and limitations
- being prepared for fire/accident/emergency
- identifying signs of operator fatigue and how it should be managed
- interpreting drawings and sketches
- identifying site isolation and traffic control responsibilities and authorities

- using civil construction terminology
- complying with project quality requirements
- applying basic principles of soil technology and soil compaction for civil works
- using basic earthworks calculations
- using civil construction activity sequences of road construction, earthworks and drainage
- using methods for calculating safe working loads
- applying operational, maintenance and basic diagnostics
- completing housekeeping activities

## Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current\* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

| Industry sector                                                                            | AQF** Level | Required assessor or Industry subject matter expert experience |
|--------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------|
| Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction | 1           | 1 Year                                                         |
|                                                                                            | 2           | 2 Years                                                        |
| Drilling, Coal Mining and Extractive (Quarrying)                                           | 3-6         | 3 Years                                                        |

|                                             |                                                                                                                                                                                                                                                                                                                                |         |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Metalliferous Mining and Civil Construction | 3-6                                                                                                                                                                                                                                                                                                                            | 5 Years |
| Other sectors                               | Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation. |         |

\*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

\*\*Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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