



**Australian Government**

# **RIIRAI509D Implement mine fixed plant and infrastructure systems**

**Release: 2**

# RIIRAI509D Implement mine fixed plant and infrastructure systems

## Modification History

| Release | Comment                                                                                                                                                                                                                                                                                                         |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | This unit replaces RIIRAI509A Implement mine fixed plant and infrastructure systems                                                                                                                                                                                                                             |
| 2       | Required frequency and volume of evidence amended in Performance evidence.<br>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 implement mine fixed plant and infrastructure systems in Coal mining.

This unit is appropriate for those working in management or technical specialist roles

No licensing, legislative or certification requirements apply to this unit at the time of publication

## Unit Sector

Coal mining

## Elements and Performance Criteria

|                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 1. Plan and prepare for the implementation of mine fixed plant and infrastructure systems | 1.1 Access, interpret and apply mine fixed plant and infrastructure systems documentation and ensure the work activity is compliant<br>1.2 Obtain, read, interpret, clarify and confirm work requirements<br>1.3 Identify and address potential risks, hazards and environmental issues and implement control measures<br>1.4 Select and wear personal protective equipment appropriate for work activities<br>1.5 Identify mine fixed plant and infrastructure systems<br>1.6 Identify the requirements of fixed plant and infrastructure in accordance with mine design and system of mining<br>1.7 Identify site requirements for the implementation of fixed |
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|                                                                                           | <p>plant and infrastructure</p> <p>1.8 Identify and interpret the specification for the required fixed plant</p> <p>1.9 Identify, clarify, in consultation, and communicate roles and responsibilities</p> <p>1.10 Identify training needs and develop training plans</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2. Implement installation and commissioning procedures for fixed plant and infrastructure | <p>2.1 Identify and address hazards and risks associated with the installation of fixed plant and infrastructure</p> <p>2.2 Integrate new and existing fixed plant and infrastructure and processes to achieve optimum performance</p> <p>2.3 Implement safe operating procedures</p> <p>2.4 Implement fixed plant and infrastructure installation and commissioning procedures</p> <p>2.5 Install fixed plant and infrastructure at the worksite</p> <p>2.6 Commission fixed plant and infrastructure systems</p> <p>2.7 Modify systems to satisfy required changes arising from the commissioning process</p> <p>2.8 Implement emergency response and evacuation plans and procedures</p>                                                    |
| 3. Implement systems for the operation and maintenance of fixed plant and infrastructure  | <p>3.1 Implement operational procedures for fixed plant and infrastructure</p> <p>3.2 Implement maintenance procedures for fixed plant and infrastructure</p> <p>3.3 Implement and apply procedures for reviewing and modifying work processes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 4. Implement systems for audit and review of fixed plant and infrastructure               | <p>4.1 Audit fixed plant and infrastructure standards for compliance with statutory and site requirements</p> <p>4.2 Audit fixed plant and infrastructure maintenance standards for currency and compliance with statutory and site requirements</p> <p>4.3 Audit fixed plant and infrastructure for compliance with site standards</p> <p>4.4 Audit reporting and recording systems for fixed plant and equipment and infrastructure for compliance with statutory and site requirements</p> <p>4.5 Audit the fixed plant and infrastructure training program for currency, relevance and compliance with site requirements</p> <p>4.6 Audit emergency response and evacuation plans and procedures for compliance with site requirements</p> |

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|  | 4.7 Report audit findings and recommendations |
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## 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

RIIRAI509A Implement mine fixed plant and infrastructure systems

## 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 RIIRAI509D Implement mine fixed plant and infrastructure systems

## Modification History

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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 legislation, documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient implementation of mine fixed plant and infrastructure systems including:
  - identifying and addressing training needs
  - implementing hazard identification and risks assessment processes
  - managing work planning and coordination activities
  - accessing, interpreting and applying manufacturer's instructions
- accessing, interpreting and applying:
  - technical information
  - briefings and handover details
  - site/legislative requirements
  - records and reports
  - applying maintenance survey procedures
- works effectively with others to implement mine fixed plant and infrastructure systems including:
  - providing team leadership
  - managing people and processes
  - resolving conflict
  - coordinating human, financial and physical resources

- developing, initiating and administering work plans
- interpreting and applying operational performance data
- engaging internal and external stakeholders
- demonstrates completion of the implementation of mine fixed plant and infrastructure systems that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
  - identification and selection of viable options for the implementation of mine fixed plant and infrastructure systems that best meet the required outcomes through:
    - accessing, interpreting and applying safety design features of the systems
    - accessing, interpreting and applying maintenance and modification systems implementation requirements and procedures
  - identifying and interpreting all aspects of mine fixed plant including a minimum of three (3) of the following:
    - crushers
    - screens
    - conveyors
    - feeders
    - coal or waste handling systems
  - identifying all aspects of the mine infrastructure systems including a minimum of five (5) of the following:
    - roads and railways
    - dams
    - fencing
    - stockpile/product bays
    - salvage area
    - reticulation systems
    - car park
    - communications
    - power supply
    - tailings
    - buildings
  - implementing installation and commissioning procedures for fixed plant and infrastructure
  - managing the audit and review processes

## Knowledge Evidence

The candidate must demonstrate knowledge in implementing mine fixed plant and infrastructure systems through:

- legislative, Australian standards, organisation and site requirements and procedures for;

- mine plan
- electrical rules
- electrical/mechanical equipment
- emergency response and disaster planning processes
- audit review
- site document control
- site environmental monitoring
- risk management
- site recording and reporting
- managing energy sources including electrical, hydraulic, pneumatic, diesel
- communications
- mines rescue
- work, health and safety
- implementing manufacturer's instructions
- standard work procedures
- training
- fire fighting
- handling and storage of dangerous goods
- local government requirement
- local power authority
- open cut mine operations systems and procedures
- stores systems
- protection systems
- reticulation systems
- specifications for fixed plant and infrastructure
- mine design principles and procedures relating to fixed plant and infrastructure
- computer based systems
- firefighting systems and precaution rules
- safety design features for maintenance of fixed plant and infrastructure

## 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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