



Australian Government

RIIPRE304D Monitor casting quality

Release: 2

RIIPRE304D Monitor casting quality

Modification History

Release	Comment
1	This unit replaces RIIPRE304A Monitor casting quality
2	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 monitor casting quality in Metalliferous mining.

This unit is appropriate for those working in supervisory 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

Metalliferous mining

Elements and Performance Criteria

1. Prepare for operations	1.1 Access, interpret and apply documentation and procedures for monitoring casting quality and ensure the work activity is compliant 1.2 Establish and maintain communications with other personnel 1.3 Select and wear personal protective equipment appropriate for work activities 1.4 Identify, address and report potential risks and hazards 1.5 Identify, address and report environmental issues 1.6 Follow emergency procedures 1.7 Use approved dust suppression and extraction methods 1.8 Ventilate work area 1.9 Check tools and required equipment availability and checks
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	for operational readiness 1.10 Set up equipment according to company standard work procedures
2. Maintain efficient operation of casting area	2.1 Carry out plant and equipment start-up checks and procedures according to plant/equipment configurations and system requirements 2.2 Control systems supplying air and water to the casting and quality inspection area 2.3 Clean and condition ladles and launders for safe, efficient casting to operating standard 2.4 Prepare ladle and launder for maintenance and/or repair as required 2.5 Maintain work area in a clean, safe condition
3. Control quality of castings	3.1 Carry out and record pre-start quality control equipment checks 3.2 Visually inspect castings in their mould for compliance with specification 3.3 Operate equipment to remove reject castings 3.4 Dress cooled castings to allow efficient refining 3.5 Batch and identify castings 3.6 Complete production documentation 3.7 Pass on end of shift information verbally or in writing to incoming shift

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

RIIPRE304A Monitor casting quality

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 RIIPRE304D Monitor casting quality

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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 applicable legislation, documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of monitoring casting quality
 - working with/handling high temperature materials
 - identifying and managing hazards associated with hot molten metal
 - handling hazardous substances correctly
 - identifying and applying dust suppression and extraction methods
 - identifying and managing ventilation systems
- demonstrates completion of monitoring casting quality that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - performing start up in sequence on equipment to meet job requirements
 - operating plant and equipment to meet job requirements
 - monitoring and maintaining air and water supply to the work area
 - inspecting castings to ensure work specifications are met, and reporting defects
 - dressing cooled castings for refining
 - batching and identifying castings
 - performing routine checks on equipment
 - maintaining required documentation and records

Knowledge Evidence

The candidate must demonstrate knowledge of monitoring casting quality through:

- casting plant construction components and operation
- characteristics of molten metal
- hazards associated with hot molten metal
- safe working procedures with molten metal
- protective equipment for working with hot materials
- identification of reject castings
- recording storage and scheduling requirements for production
- service requirements and specifications
- fault finding, rectification and reporting
- tolerances allowable in the quality system and when action should be taken
- quality assurance and inspection procedures and systems

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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