



Australian Government

RIIPSM301D Cast a blast furnace

Release: 2

RIIPSM301D Cast a blast furnace

Modification History

Release	Comment
1	This unit replaces RIIPSM301A Cast a blast furnace
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 cast a blast furnace in Metalliferous mining.

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

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare for casting of a blast furnace	1.1 Access, interpret and apply smelting documentation and ensure the work activity is compliant 1.2 Identify, address and report potential hazards, risks and environmental issues and implement control measures 1.3 Select and wear appropriate personal protective equipment 1.4 Place and operate all runners, dams and skimmers correctly 1.5 Ensure that tools are at the correct temperature for the work activity 1.6 Access and prepare casting equipment 1.7 Maintain tap hole
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2. Cast ore and slag	2.1 Drain runners after cast 2.2 Safely complete off blast activities 2.3 Secure and plug the tap hole 2.4 Ensure that only iron enters the iron receiving vessel 2.5 Open and keep the tap hole clear during cast 2.6 Apply appropriate warnings when instructed to activate item 2.7 Ensure fume extraction and indicator lights are operating accurately
3. Separate ore and slag	3.1 Segregate slag according to retained ore proportion and direct accordingly 3.2 Contain slag flows within the runner system 3.3 Ensure that tools are at the correct temperature for the work activity 3.4 Maintain runner system

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

RIIPSM301A Cast a blast furnace

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 RIIPSM301D Cast a blast furnace

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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
- applying team working practices works effectively with others to undertake and complete blast furnace casting that meets all of the required outcomes including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions and coordinate work activities
 - communicating clearly and concisely with others to coordinate work activities
- demonstrates completion of blast furnace casting that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - selecting and using personal protective equipment and tools with correct temperature
 - reporting faults
 - using hand and power tools
 - preparing a cast
 - completing off blast activities
 - securing, plugging, opening and keeping the tap hole clear during cast
 - segregating and containing slag flows
 - maintaining runner system

Knowledge Evidence

The candidate must demonstrate knowledge in casting a blast furnace through:

- work health and safety
- communicating within work group
- carrying out work to specifications
- reporting faults and variances
- separating slag
- identifying and addressing hazards

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.
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*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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