



Australian Government

RIIPBE205D Conduct roasting operations

Release: 2

RIIPBE205D Conduct roasting operations

Modification History

Release	Comment
1	This unit replaces RIIPBE205B Conduct roasting operations
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 conduct roasting operations in Metalliferous Mining.

This unit is appropriate for those working 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 roaster operations	1.1. Access, interpret and apply roasting operations documentation and ensure the work activity is compliant 1.2. Obtain, read, interpret, clarify and confirm work requirements 1.3. Coordinate and communicate with other personnel using approved communication methods 1.4. Select and wear personal protective equipment appropriate for work activities 1.5. Select appropriate type of auxiliary equipment for work activities 1.6. Identify and address potential risks, hazards and environmental issues, and implement control measures 1.7. Obtain and interpret emergency procedures, and be prepared
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	for fire/accident/emergency 1.8. Use approved dust suppression and extraction methods 1.9. Ensure area is well ventilated before entry into work area
2. Manage delivery of concentrate to fluid bed roaster	2.1. Monitor feed mechanism operation (e.g. conveyor systems) 2.2. Monitor operating requirements 2.3. Adjust feed rate as required 2.4. Determine the effects adjustments have on upstream or downstream outputs and communicate to others
3. Monitor operation of fluid bed roaster	3.1. Read and interpret and apply data from equipment indicators to determine roaster efficiency 3.2. Continuously inspect operations/plant and catchment areas to identify roaster process defects and potential problems 3.3. Adjust cooling systems to optimise roaster operation temperature 3.4. Complete all required written documentation clearly, concisely and on time 3.5. Pass on end of shift information verbally or in writing to oncoming shift
4. Manage roaster products	4.1. Monitor gas by-product output and cooling 4.2. Monitor calcine cooling systems 4.3. Regulate the operation of calcine and gas cooling systems 4.4. Action and report all roaster operating and cooling system alarms 4.5. Communicate with personnel to ensure effective management of roaster products and by-products

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

RIIPBE205B Conduct roasting 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 RIIPBE205D Conduct roasting 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 roasting operations including:
 - managing the delivery of concentrate to fluid bed roaster
 - monitoring the operation of fluid bed roaster
 - managing roaster products
 - identifying and reporting of alarms
- works effectively with others to undertake and complete the roasting operations in a way that meets 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
 - communicating clearly and concisely with others to receive and clarify work instruction
- demonstrates completion of the conduction of roasting operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - monitoring and adjusting the feed rate to the fluid bed roaster
 - monitoring and adjusting operations of the fluid bed roaster
 - monitoring and regulating roaster products

Knowledge Evidence

The candidate must demonstrate knowledge of conducting roasting operations through:

- applying organisation and site requirements and procedures for conducting roasting operations including:
 - WHS, site safety and emergency requirements and procedures
 - environmental procedures
 - hazardous goods procedures and consequences of spills and hazardous goods
 - isolation procedures
 - equipment safety requirements
 - operational procedures and checks
 - wet and dry working procedures
 - breakdown procedures
 - diagnosing faults, reporting defects and identifying repair requirements
 - interpreting reports
 - using lift (manual, cranes and loads)
 - accurately maintain records
 - using hand and power tools
 - contaminant identification
 - roasting process
 - operating parameters and roasting capacities
 - cooling systems
 - boiler operation
 - concentrate blending
 - calcine storage
 - gas management systems
 - pumping system
 - sampling
- interpreting metallurgical and technical data (basic)
- identifying reagent types
- identifying types of ores (basic)

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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