



Australian Government

RIIPRE204D Sinter materials

Release: 2

RIIPRE204D Sinter materials

Modification History

Release	Comment
1	This unit replaces RIIPRE204A Sinter materials
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 apply sinter materials 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 materials for feeding into sinter strand	1.1 Access, interpret and apply documentation and procedures to sinter materials and ensure the work activity is compliant 1.2 Add (reagents) to meet production targets and specifications 1.3 Monitor and control moisture content of materials 1.4 Monitor and control material feed rate 1.5 Identify and remove feedstock material before processing begins
2. Sinter materials	2.1 Monitor and adjust correct suction rate throughout bed to ensure sintering is complete 2.2 Identify and separate materials not meeting material size to raw material mix or other specified location

	2.3 Monitor and adjust temperature to maintain uniform distribution across the bed 2.4 Screen hot sinter where applicable 2.5 Check and confirm strand discharge chutes are working 2.6 Confirm roll feeder is clear of debris and build-up 2.7 Check and confirm condition of pallet seal and wind box to prevent leakage 2.8 Check and confirm fire bars and spade pins are intact to minimise fall through of material 2.9 Deposit blend across full width of strand 2.10 Operate at full bed depth and constant waste gas temperature
3. Cool and screen sinter and fines	3.1 Receive and assess material size according to hearth layer requirements 3.2 Maintain hopper levels ensuring contract feed to screening station 3.3 Crush oversize material from scalping screens 3.4 Monitor and cool sinter to the required temperature 3.5 Monitor cooler operations to maintain required temperature, minimise air leakage, and meet cooling rate requirements 3.6 Monitor and maintain appropriate depth of sinter on cooling pallets
4. Operate environmental controls	4.1 Ensure environmental systems are operating correctly 4.2 Check wastes and emission collection meets operational compliance

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

RIIPRE204A Sinter materials

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 RIIPRE204D Sinter materials

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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 materials sintering including:
 - identifying and applying environmental processes
 - identifying and managing hazards affecting the sinter of materials
- demonstrates completion of materials sintering that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - operating plant and equipment to meet job requirements
 - managing blend profile to give optimum strand conditions
 - managing sinter techniques and production
 - completing sinter feedstock
 - managing sinter yield
 - applying sinter feedstock additions
 - managing hot screening
 - completing screening
 - applying hearth layer requirements
 - applying cooling requirements managing cooler air leakage

Knowledge Evidence

The candidate must demonstrate knowledge of sintering materials through:

- importance of correct pallet side walls
- reasons for maintaining maximum depth of sinter in cooler pallets
- danger of high temperature sinter/pellets on conveyors
- no oversize material after final cold fines screen
- temperature distribution
- combustion requirements
- suction requirements
- processing of sinter and fines
- effects of strand leakage's
- importance of correct strand disposition
- importance of roll feeder operation
- over size material
- dangers presented by specific plant and equipment
- reporting of faults

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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