



Australian Government

Department of Education, Employment and Workplace Relations

RIISRM301B Blend stockpile materials

Release: 1

RIISRM301B Blend stockpile materials

Modification History

Not applicable.

Unit Descriptor

This unit covers the blending of stockpile materials in the metalliferous mining industry. It includes: identifying and assessing materials; and blending materials.

Application of the Unit

This unit applies in all contexts to the blending of ore in the extractive process for the open cut environment. This unit is appropriate for those working in mobile plant operator roles, within:

- Coal mining
- Metalliferous mining
- Extractive industries

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and assess material for blending	1.1. Access, interpret and apply compliance documentation relevant to the blending of stockpile materials 1.2. Receive, interpret and clarify shift changeover details 1.3. Identify, manage and report potential hazards and risks according to work plan 1.4. Select personal protective equipment appropriate for work activities 1.5. Use approved dust suppression and extraction methods 1.6. Identify and locate correct material grade according to stockpile plan 1.7. Communicate with other personnel using approved communication methods 1.8. Adhere to emergency procedures to ensure safety of personnel, plant and equipment
2. Blend materials	2.1. Select the correct quantity and grade of material and use appropriate blending techniques to achieve required blend of minerals 2.2. Avoid contaminating surrounding site and access roads 2.3. Monitor blending process to ensure correct grades of minerals are selected 2.4. Remove and/or manage contaminants upon identification

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to blend stockpile materials:

- apply legislative, organisation and site requirements and procedures
- apply diagnostic techniques
- apply decision making techniques
- apply procedures for directing operations
- apply driving techniques
- apply procedures for operating, maintaining and cleaning equipment
- apply hazard identification procedures
- apply hazardous goods handling techniques
- interpret plans, reports, maps, specifications
- apply records maintenance requirements
- organise work tasks
- apply defect reporting requirements
- apply safe work practices
- select and fit personal protective equipment
- work in a team
- apply troubleshooting procedures
- use communications equipment
- use computer systems
- use hand and power tools

Required knowledge

Specific knowledge is required to achieve the performance criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following as required to blend stockpile materials:

- blending procedures
- dust suppressant characteristics and limitations
- emergency procedures
- environmental and heritage procedures
- equipment processes, technical capability and limitations
- equipment safety requirements
- hazardous goods procedures and consequences of spills
- isolation procedures
- material grade recognition
- material placement procedures

- site operational system
- night and day working procedures
- OHS procedures
- open cut procedures
- operational procedures and checks
- principles of contamination
- start-up procedures
- shutdown procedures
- site procedures/site safety requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for blending of stockpile materials • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of the blending of stockpile materials • working with others to undertake and complete the blending of stockpile materials that meets all of the required outcomes • consistent timely completion of the blending of stockpile materials that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second

	language issues. • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete the blending of stockpile materials
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation may include:	• legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and Workplace Relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Potential hazards and risks may include:	• abandoned equipment • adjoining pit walls • adverse weather conditions (electrical storms, floods, fires) • chemicals • contaminants • equipment • fences • holes • materials • over-hanging rocks • personnel • pot holes • unsafe ground • unstable faces • vehicles
Materials may include:	• gravel • overburden • oxidised waste • rejects • road base • rubbish • sand • sulphide rock fill • tailings • topsoil

	• water • backfill • dilution material • gangue • mineralised waste • mullock • rehabilitation soils and other materials (clay bands, gravel) • road base • rubbish • sand • secondary material • various grades of ore
Grade may include:	• class • colour • high • low • mineral content • moisture content • type
Stockpile plan may include:	• coordination of activities • map • segregation of ore types • signage requirements • stockpile construction details (angle of repose, height) • total area
Equipment may include:	• bins • conveyors • dozers • dust suppression equipment • feeders • gates • loaders • magnets • ploughs • reclaimers • samplers • shovels • stackers • trucks • weighers

Contaminants may include:	• animal carcasses (sheep, cows, kangaroos) • cigarette butts • consumables • ear plugs • metal bucket teeth • metal or steel rods • old fencing/old piping • plastic • timber
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Unit Sector(s)

Stockpile and Reclaim Material

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.