



Australian Government

Department of Education, Employment and Workplace Relations

RIISAM313A Monitor, inspect and service ropes and attachments

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the monitoring, inspection and servicing of ropes and attachments in the coal and metalliferous mining industries. It includes: preparing for, conducting inspection and service: and conducting post-service and inspection activities.

Application of the Unit

This unit is appropriate for those working in operational and maintenance roles, in underground mining operations, within:

- Coal mining
- Metalliferous mining

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. Prepare for inspection and servicing	1.1. Access, interpret and apply compliance documentation relevant to the monitoring, inspection and servicing of ropes and attachments 1.2. Receive, interpret and clarify inspection and/or servicing schedules and details 1.3. Select personal protective equipment appropriate for work activities 1.4. Perform equipment and work area pre-start checks to ensure equipment is ready for inspection and/or servicing 1.5. Check records for outstanding inspections and/or maintenance and take appropriate action 1.6. Identify the scope of the inspection, correct ropes and attachments, inspection and servicing tools, equipment and consumables according to the service schedule 1.7. Identify, address and report potential hazards and risks 1.8. Coordinate and liaise with appropriate persons concerning the work 1.9. Establish that start-up procedures have been completed by the winder driver, and the area is clear for the work 1.10. Identify, address and report environmental issues 1.11. Establish emergency contingency plans with winder driver should an underground emergency arise, and adhere to site emergency procedures 1.12. Ensure area is properly ventilated before entry into work area
2. Conduct inspection and service	2.1. Perform necessary isolation and tagging 2.2. Carry out servicing and inspections of ropes according to site procedures 2.3. Inspect, classify and report anomalies and defects 2.4. Complete service actions and record any follow-up action required 2.5. Ensure all physical guards and safety signs

	are in place and tags removed, and approval obtained before winder operations are resumed
3. Conduct post-service/inspection activities	3.1. Complete all required documentation 3.2. Return all tools and equipment to storage

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 monitor, inspection and servicing of ropes and attachments:

- apply legislative, organisation and site requirements and procedures
- apply auxiliary equipment operation, servicing, cleaning requirements and procedures
- apply equipment operation, servicing and cleaning requirements and procedures
- use of hand and power tools and measuring instruments

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 monitor, inspection and servicing of ropes and attachments:

- winder operations
- rope and attachment types, their construction and their defects
- the key areas of mining acts and regulations pertaining to winding
- inspection and servicing regimes for ropes and attachments
- use of precision measuring and inspection instruments such as vernier caliper, micrometer screw gauge, straight edge, hand lens
- winder type and operations
- shaft installations
- possible defects in winder equipment/installations
- trip and fault procedures and abnormal conditions
- site winder emergency procedures
- recording and logging requirements for rope servicing and inspection
- environmental procedures
- equipment processes, technical capability and limitations
- equipment safety requirements
- isolation procedures
- operation of protective devices for shafts
- operational procedures and checks
- site procedures
- site safety requirements
- skip and personnel cage operations
- start-up and shutdown procedures

- underground procedures

Evidence Guide

<p>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.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>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:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for monitoring, inspecting and servicing of ropes and attachments • implementation of requirements, procedures and techniques for the safe, effective and efficient monitoring, inspecting and servicing of ropes and attachments • working with others to monitor, inspect and service of ropes and attachments that meets all of the required outcomes • consistent timely completion of monitoring, inspecting and servicing of ropes and attachments that safely, effectively and efficiently meets the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • 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

	<p>English speaking background may have second language issues.</p> <ul style="list-style-type: none"> • 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.
<p>Method of assessment</p>	<p>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:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • working with others to undertake and complete the monitoring, inspecting and servicing of ropes and attachments
<p>Guidance information for assessment</p>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

<p>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.</p>	
<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • 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
<p>Inspection and servicing of winder ropes and attachments and may include:</p>	<ul style="list-style-type: none"> • visual inspection for defects such as wear, kinks, bends, corrosion, cracks, damage or loss of components, wire breaks, deterioration, distortion, loss of metal, nicks, corkscrewing, bird-caging, structural damage • measurement of rope diameter/loss of metallic area • measurement of rope lay length • visual inspection of moving rope • recording of monitoring and inspection results
<p>Inspection and servicing does not include:</p>	<ul style="list-style-type: none"> • rope replacement • capping • cropping • destructive testing • non-destructive examination/testing using: <ul style="list-style-type: none"> • magnetic detecting instruments • liquid penetrant • magnetic particle • eddy current • ultrasonic or radiography methods
<p>Rope servicing may include:</p>	<ul style="list-style-type: none"> • cleaning to remove oil and other lubricants • lubrication (drum winders) • marking location of rope defects
<p>Potential hazards and risks may include:</p>	<ul style="list-style-type: none"> • communication failure • falling objects

	<ul style="list-style-type: none"> • working at heights • movement of equipment • plant failure • power failure • spillage • unauthorised personnel • visibility • explosion • asphyxiation and drowning
Winding operations include winder operations in:	<ul style="list-style-type: none"> • drifts • tunnels • slopes • inclines
Environmental issues may include:	<ul style="list-style-type: none"> • fumes • spills • flammable and noxious gases • flammable dust
Site procedures may include:	<ul style="list-style-type: none"> • clean up • equipment shutdown and isolation procedures • evacuation procedures • First Aid • notifying relevant authorities • permit-to-work systems • safety equipment • use of personal protective equipment • communication procedures, e.g. with winder operator • portable electric apparatus procedures • fall arrestor and harness procedures • confined spaces

Unit Sector(s)

Service and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.