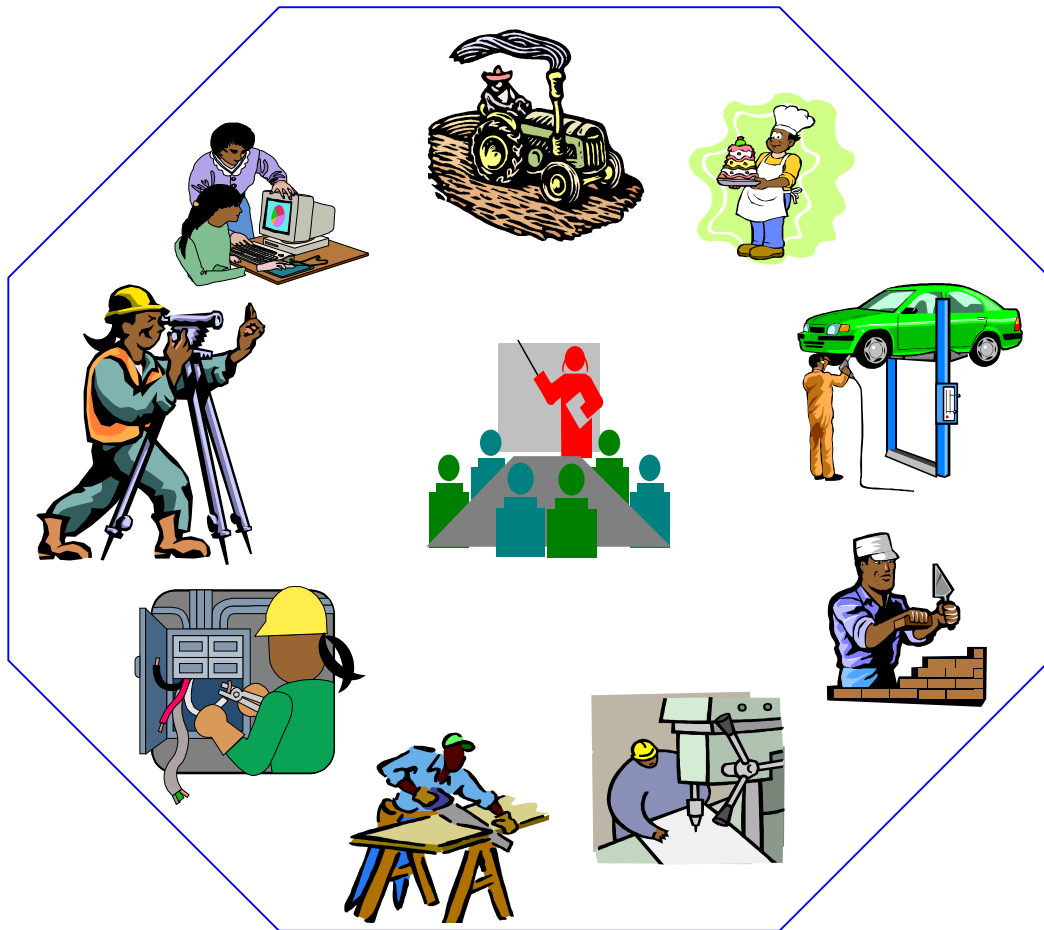




Federal Democratic Republic of Ethiopia  
**OCCUPATIONAL STANDARD**  
**TRAIN OPERATION**  
NTQF Level II, III and IV



*Ministry of Education*  
*March 2013*

## Introduction

Ethiopia has embarked on a process of reforming its TVET-System. Within the policies and strategies of the Ethiopian Government, technology transformation – by using international standards and international best practices as the basis, and, adopting, adapting and verifying them in the Ethiopian context – is a pivotal element. TVET is given an important role with regard to technology transfer. The new paradigm in the outcome-based TVET system is the orientation at the current and anticipated future demand of the economy and the labor market.

The Ethiopia Occupational Standards (EOS) is the core element of the Ethiopian National TVET-Strategy and an important factor within the context of the National TVET-Qualification Framework (NTQF). They are national Ethiopian standards, which define the occupational requirements and expected outcome related to a specific occupation without taking TVET delivery into account.

This document details the mandatory format, sequencing, wording and layout for the Ethiopia Occupational Standard which comprised of Units of Competence.

A Unit of Competence describes a distinct work activity. It is documented in a standard format that comprises:

- Occupational title and NTQF level
- Unit title
- Unit code
- Unit descriptor
- Elements and Performance criteria
- Variables and Range statement
- Evidence guide

Together all the parts of a Unit of Competence guide the assessor in determining whether the candidate is competent.

The ensuing sections of this EOS document comprise a description of the occupation with all the key components of a Unit of Competence:

- chart with an overview of all Units of Competence for the respective level (Unit of Competence Chart) including the Unit Codes and the Unit titles
- contents of each Unit of Competence (competence standard)
- occupational map providing the Technical and Vocational Education and Training (TVET) providers with information and important requirements to consider when designing training programs for this standards and for the individual, a career path

## UNIT OF COMPETENCE CHART

**Occupational Standard: Train Operation**

**Occupational Code: EIS TRO**

### *NTQF Level II*

<p><a href="#">EIS TRO2 01 0313</a> Connect and Disconnect Reefer Units</p>	<p><a href="#">EIS TRO2 02 0313</a> Diagnose and Rectify Minor Faults</p>	<p><a href="#">EIS TRO2 03 0313</a> Provide Sanitation and Water Services Support to Passenger Transportation Units</p>
<p><a href="#">EIS TRO2 04 0313</a> Set up and secure a Towing Situation</p>	<p><a href="#">EIS TRO2 05 0313</a> Operate Firefighting Equipment</p>	<p><a href="#">EIS TRO2 06 0313</a> Apply Awareness of Safe Working Rules and Regulations</p>
<p><a href="#">EIS TRO2 07 0313</a> Monitor and Process Attendance Records</p>	<p><a href="#">EIS TRO2 08 0313</a> Monitor and Record Rolling Stock Locations</p>	<p><a href="#">EIS TRO2 09 0313</a> Use Info Technology Devices in the Workplace</p>
<p><a href="#">EIS TRO2 10 0313</a> Use and Maintain Minor Mechanical Equipment</p>	<p><a href="#">EIS TRO2 11 0313</a> Operate Specialized Load Shifting Equipment</p>	<p><a href="#">EIS TRO2 12 0313</a> Apply Fatigue Management Strategies</p>
<p><a href="#">EIS TRO2 13 0313</a> Participate in Workplace Communication</p>	<p><a href="#">EIS TRO2 14 0313</a> Work in Team Environment</p>	<p><a href="#">EIS TRO2 15 0313</a> Develop Business Practice</p>
<p><a href="#">EIS TRO2 16 0313</a> Standardize and Sustain 3S</p>		

**NTQF Level III**

<a href="#">EIS TRO3 01 0313</a> Prepare for Train Operation	<a href="#">EIS TRO3 02 0313</a> Stable a Motive Power Unit	<a href="#">EIS TRO3 03 0313</a> Stable Electric Passenger Train
<a href="#">EIS TRO3 04 0313</a> Assist with Train Operations	<a href="#">EIS TRO3 05 0313</a> Set up and Shut down On-Train Remote Control System	<a href="#">EIS TRO3 06 0313</a> Conduct Full Train Examination
<a href="#">EIS TRO3 07 0313</a> Shunt, Couple And Uncouple Electric Passenger Trains	<a href="#">EIS TRO3 08 0313</a> Implement and Monitor Occupational Health and Safety Procedures	<a href="#">EIS TRO3 09 0313</a> Conduct Train Roll-By Inspection
<a href="#">EIS TRO3 10 0313</a> Coordinate Breakdowns and Emergencies	<a href="#">EIS TRO3 11 0313</a> Operate On-Train Remote Control System	<a href="#">EIS TRO3 12 0313</a> Plan Passenger Train Consists
<a href="#">EIS TRO3 13 0313</a> Shift Loads Using Gantry Equipment	<a href="#">EIS TRO3 14 0313</a> Estimate/Calculate Mass, Area and Quantify	<a href="#">EIS TRO3 15 0313</a> Plan Freight Train Consists
<a href="#">EIS TRO3 16 0313</a> Test equipment and isolate faults	<a href="#">EIS TRO3 17 0313</a> Test Train Braking System	<a href="#">EIS TRO3 18 0313</a> Apply Quality Control
<a href="#">EIS TRO3 19 0313</a> Lead Workplace Communication	<a href="#">EIS TRO3 20 0313</a> Lead Small Teams	<a href="#">EIS TRO3 21 0313</a> Improve Business Practice
<a href="#">EIS TRO3 22 0313</a> Monitor Implementation of Work Plan/Activities	<a href="#">EIS TRO3 23 0313</a> Prevent and Eliminate MUDA	

**NTQF level IV**

[EIS TRO4 01 0313](#)

Check and Evaluate  
Records and  
Documentation

[EIS TRO4 02 0313](#)

Operate and Monitor a  
Motive Power Unit

[EIS TRO4 03 0313](#)

Develop and Maintain  
a Safe Workplace

[EIS TRO4 04 0313](#)

Monitor Transport  
Activities at  
Interchanges

[EIS TRO4 05 0313](#)

Implement and  
Monitor Network  
Security

[EIS TRO4 06 0313](#)

Allocate Motive Power

[EIS TRO4 07 0313](#)

Manage Personal  
Work Priorities and  
Professional  
Development

[EIS TRO4 08 0313](#)

Develop Plans to Meet  
Customer and  
Organization Needs

[EIS TRO4 09 0313](#)

Plan and Organize  
Work

[EIS TRO4 10 0313](#)

Migrate to New  
Technology

[EIS TRO4 11 0313](#)

Establish Quality  
Standards

[EIS TRO4 12 0313](#)

Develop Individuals  
and Team

[EIS TRO4 13 0313](#)

Utilize Specialized  
Communication Skills

[EIS TRO4 14 0313](#)

Manage and Maintain  
Small/Medium  
Business Operations

[EIS TRO4 15 0313](#)

Apply Problem Solving  
Techniques and Tools

## NTQF Level II

Occupational Standard: Train Operation Level II	
Unit Title	Connect and Disconnect Reefer Units
Unit Code	<a href="#">EIS TRO2 01 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to connect and disconnect reefer units in accordance with workplace requirements including plugging and unplugging reefer units to/from power sources, attaching and detaching clip-on units, and identifying and reporting any problems with reefer unit operation.

Elements	Performance Criteria
1. Plug/unplug reefer units to power sources	<p>1.1 <b>Reefer units</b> are plugged/unplugged safely in accordance with workplace procedures</p> <p>1.2 Reefer units are checked to be running correctly after being plugged in</p> <p>1.3 Problems with the operation of reefer units and <b>hazards</b> are identified and reported to appropriate <b>personnel</b> in accordance with workplace procedures</p> <p>1.4 Faults in reefer units are investigated and reported in accordance with workplace procedures, <b>legislation and regulation</b></p> <p>1.5 Reefer units are unplugged as required and cables are cleared from units in the <b>workplace</b></p>
2. Attach/detach clip-on units	<p>2.1 <b>Clip-on units are attached/detached</b> safely in accordance with the regulatory and code of critical requirements and <b>workplace procedures</b></p> <p>2.2 Problems with the operations of clip-on units are identified and reported to appropriate personnel</p> <p>2.3 <b>Work</b> is performed under some supervision generally within a team environment.</p> <p>2.4 <b>Communication</b> and <b>information</b> are used effectively with each other when connecting and disconnecting reefer units</p>

Variable	Range
Reefer units	May require the attachment of clip-on units
Hazards in the work area	<p>May include exposure to:</p> <ul style="list-style-type: none"> <li>• chemicals</li> <li>• dangerous or hazardous substances</li> <li>• movements of equipment, goods and materials</li> </ul>

Personnel in work area	May include: <ul style="list-style-type: none"> <li>workplace personnel</li> <li>site visitors</li> <li>contractors</li> <li>official representatives</li> </ul>		
Applicable regulations and legislation	May include: <ul style="list-style-type: none"> <li>relevant standards and codes applying to the connection and disconnection of reefer units</li> <li>licence, patent or copyright arrangements</li> <li>water and road use and licence arrangements</li> <li>export/import/quarantine/bond requirements</li> <li>marine orders</li> <li>relevant state/territory OHS and environmental protection legislation</li> <li>workplace relations regulations</li> <li>workers compensation regulations</li> </ul>		
Workplaces	May comprise: <ul style="list-style-type: none"> <li>large, medium or small worksites</li> </ul>		
Critical requirements when attaching clip-on units	Include: <ul style="list-style-type: none"> <li>appropriate clip-on tool used</li> <li>protective equipment is worn</li> <li>connection to container or crib is ensured</li> </ul>		
workplace procedures	May include: <ul style="list-style-type: none"> <li>company procedures</li> <li>enterprise procedures</li> <li>organisational procedures</li> <li>established procedures</li> </ul>		
Work	May be conducted in: <ul style="list-style-type: none"> <li>limited or restricted spaces</li> <li>exposed conditions</li> <li>controlled or open environments</li> <li>at heights</li> <li>in a range of work environments</li> <li>by day or night</li> </ul>		
Personal protective equipment	May include: <ul style="list-style-type: none"> <li>gloves</li> <li>safety headwear and footwear</li> <li>safety glasses</li> <li>two-way radios</li> <li>protective clothing</li> <li>high visibility clothing</li> </ul>		
Communication in the work area	May include: <ul style="list-style-type: none"> <li>phone</li> <li>radio</li> <li>oral, aural or signed communications</li> </ul>		
Information/ documents	May include: <ul style="list-style-type: none"> <li>goods identification numbers and codes</li> </ul>		
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	<ul style="list-style-type: none"> <li>• manifests, bar codes, and container identification/serial number</li> <li>• operations manuals, job specifications and induction documentation</li> <li>• manufacturers specifications for equipment</li> <li>• workplace procedures and policies</li> <li>• supplier and/or client instructions</li> <li>• dangerous goods declarations and material safety data sheets</li> <li>• award, enterprise bargaining agreement, other industrial arrangements</li> <li>• emergency procedures</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of</p> <ul style="list-style-type: none"> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the connection and disconnection of reefer units</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the connection and disconnection of reefer units</li> <li>• Problems that May occur when connecting and disconnecting reefer units and appropriate action that can be taken to resolve the problems</li> <li>• Site layout and location of reefer units</li> <li>• The marking and numbering systems for cargo</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when connecting and disconnecting reefer units</li> <li>• Read and interpret instructions, procedures, information and labels relevant to connecting and disconnecting reefer units</li> <li>• Interpret and follow operational instructions and prioritize work when connecting and disconnecting reefer units</li> <li>• Identify cargo, container and goods, coding, ADG and IMDG markings and where applicable emergency information panels</li> <li>• Receive, acknowledge and send messages with</li> </ul>

	<p>available communication equipment</p> <ul style="list-style-type: none"> <li>• Work collaboratively with others when connecting and disconnecting reefer units</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions in the operation of reefer units in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unplanned events when connecting and disconnecting reefer units</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist when connecting and disconnecting reefer units</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Identify reefer units requiring clip-on units</li> <li>• Identify, select and use relevant equipment, processes and procedures when connecting and disconnecting reefer units</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be accessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level II	
Unit Title	Diagnose and Rectify Minor Faults
Unit Code	<a href="#">EIS TRO2 02 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to identify, diagnose and rectify minor faults in accordance with workplace requirements, including identifying maintenance and/or repair requirements, conducting minor maintenance and routine repairs, checking and reporting minor repairs and/or maintenance, and providing support in accordance with workplace procedures.

Elements	Performance Criteria
1. Identify maintenance/repair requirements	<p>1.1 Condition of rolling stock and/or motive power unit ancillary equipment is assessed</p> <p>1.2 <b>Environmental hazards</b> ,faulty or damaged components or equipment are identified and assessed for component exchange or minor repair</p> <p>1.3 Equipment and tools required are identified and obtained</p> <p>1.4 Work areas and <b>safety equipment</b> are prepared and made safe for repair/maintenance/component exchange activities</p>
2. Conduct minor maintenance and routine repairs	<p>2.1 <b>Minor repair/maintenance</b>/component exchange are carried out to comply with the manufacturers specifications and <b>workplace procedures</b></p> <p>2.2 Equipment, tools and materials required are operated, applied and handled to conform to OHS requirements and manufacturers specifications <b>contingency</b></p>
3. Check and report minor repairs/maintenance	<p>3.1 Minor repair/maintenance/component exchange activities are checked for compliance with safety requirements and workplace procedures</p> <p>3.2 Equipment is checked to confirm that it has been restored to operational standards</p> <p>3.3 Repair/maintenance/component exchange activities are documented in appropriate records or log books</p>
4 Provide support	<p>4.1 Repairs/maintenance/component exchange activities requiring support are identified and level of support established</p> <p>4.2 <b>Consultative process</b> to repair/maintenance/component exchange activities is</p>

	<p>provided in the required <b>operation</b></p> <p>4.3 Repair/maintenance/component exchange work not able to be undertaken or completed is reported to appropriate personnel for follow-up action</p> <p>4.4 Work site is checked for cleanliness and operational safety and appropriate action taken to restore site and equipment</p>
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Variable	Range
Environmental hazards	<p>May include:</p> <ul style="list-style-type: none"> <li>• leaking oil and fuel</li> <li>• defective or inappropriately adjusted exhaust systems</li> <li>• gases emitted from battery charging system</li> <li>• inappropriate disposal of fluids in drains or sewerage systems</li> <li>• inappropriate disposal of waste and rubbish</li> </ul>
Safety equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• sunscreen and sun glasses</li> <li>• insect repellent</li> <li>• gloves, safety headwear, mask and footwear</li> <li>• portable radios/mobile phones</li> <li>• flags and hand lamps</li> <li>• safety glasses and hearing protection</li> <li>• safety devices</li> </ul>
Minor maintenance/repair component exchange	<p>May include:</p> <ul style="list-style-type: none"> <li>• minor component change out</li> <li>• diagnosing minor faults</li> <li>• identifying correct lubricants</li> <li>• identifying correct fuel and carrying out refuelling</li> <li>• identifying correct solvents and cleaning fluids</li> <li>• maintaining fluid and air pressures</li> <li>• replacing faulty/damaged/worn equipment</li> <li>• servicing and cleaning batteries</li> <li>• inspecting bogies, running gear and ancillary equipment in cabin or on rolling stock</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established or standard procedures</li> </ul>
Contingency processes	<p>May relate to:</p> <ul style="list-style-type: none"> <li>• personal injury</li> <li>• tool malfunctions</li> </ul>

Consultative processes	<p>May involve:</p> <ul style="list-style-type: none"> <li>• workplace personnel including supervisors and managers</li> <li>• equipment manufacturers representatives and contractors</li> <li>• union representatives</li> <li>• industrial relations and OHS specialists</li> <li>• other professional or technical staff</li> </ul>
Operations	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• by day or night</li> <li>• In all weather conditions.</li> <li>• in confined spaces</li> <li>• in exposed conditions</li> <li>• in controlled or open environments</li> </ul>
Operators of mechanised equipment	<p>Must have:</p> <ul style="list-style-type: none"> <li>• undertaken training and, where appropriate, hold the relevant license, permit or certificate</li> <li>• be recognised as competent for the class of machinery being used</li> </ul>
Information/records	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace operational and technical instructions and procedures for the diagnosis and rectification of minor faults</li> <li>• relevant regulations including state/territory safety codes of practice and safe working regulations</li> <li>• maintenance checklists and records for the diagnosis and rectification of minor faults</li> <li>• tool/equipment manufacturers instructions, specifications and recommended procedures</li> <li>• precautions and procedures to be adopted to protect the environment when diagnosing and rectifying minor faults</li> <li>• OHS procedures</li> <li>• QA plans and procedures</li> <li>• data and document control procedures</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• emergency procedures</li> <li>• award, enterprise bargaining agreement, other industrial arrangements</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant state/territory regulations, codes of practice and safe working system requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> <li>• workers compensation regulations</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• identifying rolling stock and equipment checks required for a range of rolling stock in the workplace</li> <li>• identifying typical faults or defects that May occur on rolling stock and equipment</li> <li>• correct workplace requirements for reporting identified rolling stock or equipment defects</li> </ul> </li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant state/territory regulations, codes of practice and safe working system requirements</li> <li>• Relevant OHS and environmental protection requirements</li> <li>• Workplace procedures and policies for the diagnosis and repair of minor faults</li> <li>• Typical minor repair problems that can occur and related action that should be taken</li> <li>• Tools and equipment used when diagnosing and rectifying minor faults and the procedures and precautions for their care, use and storage</li> <li>• Workplace documentation and records requirements</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Workplace component and material supply system</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when diagnosing and rectifying minor faults</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the diagnosis and rectification of minor faults</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to work activities</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when diagnosing and rectifying minor faults</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May arise when diagnosing and rectifying minor faults in accordance with regulatory requirements and workplace procedures</li> </ul>

	<ul style="list-style-type: none"> <li>• Implement contingency plans for unplanned events that May occur when diagnosing and rectifying minor faults</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Monitor performance of equipment</li> <li>• Service equipment in terms of maintenance schedule and standard operating procedures</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be accessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level II	
Unit Title	Provide Sanitation and Water Services Support to Passenger Transportation Units
Unit Code	<a href="#">EIS TRO2 03 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to provide sanitation and water services support to passenger transportation units in accordance with workplace and regulatory requirements, including planning the decanting and watering of passenger vehicles, carriages or vessels; providing a decanting and water service; and completing all decanting and watering operations.

Elements	Performance Criteria
1. Plan decanting and watering of passenger vehicles/carriages/vessels	<p>1.1 Transport systems vehicles, carriages or vessel type are identified to assess the nature and extent of the servicing required</p> <p>1.2 Sanitary waste removal and water system refill are planned to ensure minimal inconvenience and delay to customers and services</p> <p>1.3 <b>Work</b> is done systematically with required attention to detail using personal protective equipment</p> <p>1.4 Precautions and required action are applied to minimize, control or eliminate <b>hazards</b> that May exist</p>
2. Provide decanting service	<p>2.1 <b>Decanting</b> unit is connected to transport units waste tanks in accordance operational requirements</p> <p>2.2 <b>Transport units</b> waste is removed to holding tanks in accordance with <b>workplace procedures</b></p> <p>2.3 Decanting unit is disconnected from transport unit and unit is cleaned to meet workplace and health and hygiene regulations</p>
3. Provide water service	<p>3.1 Water supply is connected to transport units water storage tanks in accordance with operational requirements</p> <p>3.2 Transport units water storage tanks are filled in accordance with occupational health and safety <b>regulations and legislation</b></p> <p>3.3 Water supply is disconnected from transport unit and unit cleaned to meet workplace and health and hygiene regulations</p> <p>3.4 <b>Communication</b> is effectively used while providing sanitation and water services support to passenger transportation units</p>



4. Complete decanting and watering	<p>4.1 <b>Documentation</b> is completed concerning the removal of waste and the supply of water</p> <p>4.2 Identified problems that May occur when providing sanitation and water services are reported in accordance with regulatory requirements and workplace procedures</p>
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Variable	Range
Work	May be conducted in: <ul style="list-style-type: none"> <li>• a range of work environments</li> <li>• by day or night</li> </ul>
Hazards in the work area	May include exposure to: <ul style="list-style-type: none"> <li>• chemicals</li> <li>• dangerous or hazardous substances</li> </ul>
Cleaning and decanting equipment	May include: <ul style="list-style-type: none"> <li>• mops</li> <li>• buckets</li> <li>• hoses</li> <li>• pumps</li> <li>• waste tanks</li> </ul>
Transportation units May include:	May include: <ul style="list-style-type: none"> <li>• rail carriages, buses, coaches, ferries and other transport units incorporating water and sanitation services</li> </ul>
workplace procedures	May include: <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Applicable regulations and legislation	May include: <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> <li>• workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation</li> <li>• workers compensation regulations</li> </ul>
Communication in the work area	May include: <ul style="list-style-type: none"> <li>• verbal communication</li> <li>• written communication</li> <li>• phone</li> <li>• radio</li> </ul>
Personal protective equipment	May include: <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• high visibility clothing</li> </ul>

Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• work instructions, job description and induction materials</li> <li>• manufacturers specifications for equipment/materials</li> <li>• relevant OHS and environmental protection requirements and policies</li> <li>• relevant codes of practice including the National Standards for Manual Handling, the Industry Safety Code ,relevant health and hygiene legislation, regulations and related documentation</li> <li>• award, enterprise bargaining agreement and other industrial arrangements</li> <li>• customer service and quality assurance procedures</li> <li>• emergency procedures</li> </ul>
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<b>Evidence Guide</b>			
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the provision of sanitation and water services support to passenger transportation units, including the discharging of waste and the charging of water containers</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the provision of sanitation and water services support to passenger transportation units</li> <li>• Equipment, chemicals and materials used during the provision of sanitation and water services support to passenger transportation units, and the precautions and procedures that should be followed in their use</li> <li>• Problems that May occur when providing sanitation and water services support to passenger transportation units and appropriate action that can be taken to resolve the problems</li> <li>• Documentation and record requirements</li> <li>• Communication requirements when providing sanitation and water services support to passenger transportation</li> </ul>		
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	<p>units, including radio operation</p> <ul style="list-style-type: none"> <li>• Housekeeping standards procedures required in the workplace</li> </ul> <p>Site layout</p>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when providing sanitation and water services support to passenger transportation units</li> <li>• Read and interpret instructions, procedures, information, labels and signs relevant to the provision of sanitation and water services support to passenger transportation units</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the provision of sanitation and water services support to passenger transportation units</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when providing sanitation and water services support to passenger transportation units</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May occur when providing sanitation and water services support to passenger transportation units in accordance with regulatory requirements and workplace procedures</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist when providing sanitation and water services support to passenger transportation units</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Apply fatigue management knowledge and techniques</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Select and safely use relevant equipment and materials when providing sanitation and water services support to passenger transportation units</li> </ul>

	<ul style="list-style-type: none"> <li>• Select, mix and apply appropriate cleaning materials</li> <li>• Handle and store hazardous substances and materials</li> </ul> <p>Store cleaning materials and equipment</p>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be accessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level II	
Unit Title	Set Up and Secure a Towing Situation
Unit Code	<a href="#">EIS TRO2 04 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to plan a towing job and set up towing situation, including obtaining and confirming job instructions, assessing towing requirements, determining a plan of action, and carrying out all required action to set up and secure a towing situation.

Elements	Performance Criteria
1. Obtain information on towing job	<p>1.1 <b>Information</b> on the towing job is obtained from base or depot as per procedures</p> <p>1.2 Further information on towing requirements is obtained through <b>communication</b> at the scene of the job</p>
2. Assess towing requirements	<p>2.1 Equipment requirements and techniques to carry out the towing job are assessed</p> <p>2.2 <b>Potential hazards</b> that May be experienced at the towing site and during the towing operation are identified and appropriate precautions and strategies are adopted to manage and control the risks involved</p> <p>2.3 Type of vehicle to be towed is identified and critical aspects of vehicle design determined as they relate to allowable towing arrangements and configurations</p>
3. Determine appropriate plan of action	<p>3.1 Sequence of action and plan for the towing activity and the safety and security of persons, vehicles and property of a <b>customer</b> are determined as per regulatory requirements and standard <b>operating procedures</b></p> <p>3.2 <b>Towing vehicle</b> and associated equipment to carry out the job are organized to be available for the <b>work</b></p>
4. Set up and secure the towing situation	<p>4.1 The setting up and securing of a <b>towing situation</b> are carried out in accordance with the established action plan</p> <p>4.2 <b>Personal protective equipment</b>, witch's hats and safety signs are deployed as per standard operating procedures and regulatory requirements</p> <p>4.3 Onlookers and other personnel in the vicinity of the towing situation are managed as per applicable safety management procedures and security requirements</p> <p>4.4 Vehicle or equipment to be towed is maneuvered into position using relevant equipment as per standard operating procedures and regulatory requirements</p> <p>4.5 Vehicle or equipment to be towed is secured using</p>

	appropriate winches, ropes and cables as per relevant load restraint regulations and standard operating procedures
5. Record and report results of inspection and testing	<p>5.1 The assessment of the towing situation and action taken are accurately reported in accordance with regulatory requirements, workplace policy and industry guidelines</p> <p>5.2 Records are clear, unambiguous and concisely kept in accordance with workplace procedures, <b>rules and regulation</b></p> <p>5.3 Clear reference is made to any issues, <b>hazards</b> or incidents that May have arisen when attending the towing situation and any related action taken</p>

Variable	Range
Information	<p>May include:</p> <ul style="list-style-type: none"> <li>• standard procedures and policies for the setting up and securing a towing situation</li> <li>• manufacturers specifications for towing vehicle, equipment and tools</li> <li>• workplace and client instructions</li> <li>• relevant OHS requirements and policies</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• material safety data sheets where applicable</li> <li>• codes of practice including the National Standards for Manual Handling and the Industry Safety Code</li> </ul>
Communication	<p>May include:</p> <ul style="list-style-type: none"> <li>• mobile phone</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• RF communications</li> <li>• oral, aural or signed communications</li> </ul>
Potential hazards	<p>May include:</p> <ul style="list-style-type: none"> <li>• vehicular traffic at the scene</li> <li>• live electrical wires</li> <li>• contaminated blood at scene</li> <li>• weather conditions</li> <li>• oil on vehicle trays (slippery surfaces)</li> <li>• unsafe or damaged equipment</li> <li>• unsafe procedures in the use of towing equipment</li> <li>• fire at the scene</li> <li>• spilt or leaking fuel or dangerous or hazardous goods or substances</li> <li>• unsafe manual lifting procedures</li> <li>• sharps that May be contaminated with transmittable</li> </ul>

	diseases
Customers	<p>May be:</p> <ul style="list-style-type: none"> <li>• vehicle owners</li> <li>• operators of expressways, freeways, toll ways or tunnels</li> <li>• police and other emergency services personnel</li> <li>• owners and operators of equipment elevating work platforms, forklifts, small load shifting equipment, etc.</li> </ul>
operating procedures	<p>May be called:</p> <ul style="list-style-type: none"> <li>• standard operating procedures</li> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Towing vehicle	<p>May include:</p> <ul style="list-style-type: none"> <li>• tilt tray tow truck with winch (5 tonne, 7.5 tonne and 10 tonne capacity)</li> <li>• tow truck with crane and cradle</li> <li>• towing vehicle with a detachable self loading table top</li> <li>• articulated drop-deck low loader</li> <li>• trailer</li> </ul>
Work	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• in a range of towing situations</li> <li>• by day or night</li> <li>• in a range of weather conditions</li> </ul>
Towing situations	<p>May include:</p> <ul style="list-style-type: none"> <li>• vehicle accidents</li> <li>• vehicle breakdowns</li> <li>• expressway breakdowns and accidents</li> <li>• tunnel breakdowns and accidents</li> <li>• carriage of equipment such as elevating work platforms, forklifts, small load shifting equipment, etc.</li> </ul>
Personal protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• high visibility clothing (raincoats and vests)</li> <li>• portable fire extinguishers</li> </ul>
Hazard control strategies	<p>May include:</p> <ul style="list-style-type: none"> <li>• use of flashing lights on vehicles</li> <li>• deployment of safety equipment such as warning signs or witch's hats</li> <li>• strategic positioning of towing vehicle</li> <li>• use of appropriate personal protective equipment, including reflective vests and raincoats</li> <li>• use of safe procedures in the use of towing equipment</li> <li>• checking equipment and isolating, rectifying or reporting any defective equipment</li> </ul>

	<ul style="list-style-type: none"> <li>• following correct safety procedures in the event of live fallen electrical wires at an accident scene</li> <li>• following correct procedures in the event of spilt or leaking</li> <li>• using correct portable firefighting equipment to control a fire at the scene</li> <li>• correct manual lifting strategies</li> <li>• cleaning of vehicles (including removal of oil from vehicle trays)</li> </ul>
Applicable legislation, regulations and codes:	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant standards and codes pertaining to the setting up and securing of a towing situation</li> <li>• relevant state/territory regulations and licence/permit requirements pertaining to the operation of tow trucks</li> <li>• relevant state/territory road rules</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Regulations and standards relevant to the setting up and securing of a towing situation</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the checking and assessing of the operational capability of equipment</li> <li>• Focus of operation of work systems, equipment, management and workplace standard operating systems for the checking and assessing of the operational capability of equipment</li> <li>• The characteristics, applications, capabilities and limitations of the towing equipment</li> <li>• Tools and equipment used when setting up and securing a towing situation and the precautions and procedures that should be followed in their use</li> <li>• Problems that May occur when setting up and securing of a towing situation and appropriate action that can be taken to resolve the problems</li> <li>• Operational safety requirements for the equipment concerned</li> <li>• Hazards that May exist when setting up and securing of a towing situation and precautions and action that should be taken to minimize or eliminate the hazards</li> </ul>		
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	<p>concerned</p> <ul style="list-style-type: none"> <li>• Documentation and record requirements when checking and assessing the operational capability of equipment</li> <li>• Housekeeping standards and procedures required when setting up and securing a towing situation</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when setting up and securing a towing situation</li> <li>• Read and interpret instructions, procedures and information relevant to the setting up and securing of a towing situation</li> <li>• Read and comprehend simple statements in English</li> <li>• Complete documentation related to the setting up and securing of a towing situation</li> <li>• Work safely and collaboratively with others when setting up and securing a towing situation</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Modify activities depending on differing workplace contexts, risk situations and towing situations</li> <li>• Recognise problems concerning the setting up and securing of a towing situation and take appropriate action</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Plan own work including predicting consequences and identifying improvements</li> <li>• Prioritize work activities when setting up and securing a towing situation</li> <li>• Select and use personal protective equipment as per OHS requirements</li> <li>• Select and use equipment and tools required when setting up and securing a towing situation</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be accessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Train Operation Level II	
Unit Title	Operate Firefighting equipment
Unit Code	<a href="#">EIS TRO2 05 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to operate and check firefighting equipment in accordance with manufacturer's instructions and workplace emergency procedures, including identifying and selecting the appropriate equipment, using the firefighting equipment to fight a fire, and checking that the firefighting equipment is operational.

Elements	Performance Criteria
1. Check firefighting equipment	<p>1.1 <b>Firefighting equipment</b> is checked for serviceability as per manufacturers specifications and regulatory requirements</p> <p>1.2 Non-functioning equipment or equipment which is past its service date is identified and reported to designated personnel for replacement or service</p> <p>1.3 <b>Work</b> is performed under some supervision generally within a team environment involving the application of workplace procedures and <b>regulation and legislation</b></p> <p>1.4 Precautions and required action is applied to minimize, control or eliminate <b>hazards</b> that May exist during work activities</p> <p>1.5 <b>Communication</b> is used effectively with others when fighting fires using fire fighting equipment</p>
2. Use firefighting equipment	<p>2.1 Contingency plan is implemented for unanticipated situations that May occur when using firefighting equipment to protect the <b>customers</b></p> <p>2.2 Equipment and <b>personal safety equipment</b> used for fighting fires are correctly selected for <b>type of fire</b> in accordance with manufacturer's <b>information</b></p> <p>2.3 Fire is controlled using firefighting equipment according to manufacturer's instructions and <b>workplace</b> emergency procedures</p> <p>2.4 Equipment is stored safely according to manufacturer's instructions and <b>workplace procedures</b></p>

Variable	Range
Fire fighting equipment,	<p>May include:</p> <ul style="list-style-type: none"> <li>portable fire extinguishers including foam, water, CO2, dry chemical and wet foam</li> </ul>

	<ul style="list-style-type: none"> <li>• sprinkler systems</li> <li>• fire hoses and hydrants</li> <li>• fire blankets</li> </ul>		
Work	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> <li>• limited or restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> </ul>		
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant codes, regulations and safe working systems for the use and checking of firefighting equipment</li> <li>• relevant state/territory OHS and environmental protection legislation</li> <li>• workplace relations regulations</li> </ul>		
Hazards in the work area	<p>May include exposure to:</p> <ul style="list-style-type: none"> <li>• chemicals</li> <li>• dangerous or hazardous substances</li> <li>• live electrical circuits</li> <li>• movements of equipment, goods, materials, trains and vehicular traffic</li> </ul>		
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• phone</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• RF systems</li> <li>• oral, aural or signed communications</li> </ul>		
Customers	<p>May be:</p> <ul style="list-style-type: none"> <li>• internal or external</li> </ul>		
Personal protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• protective clothing</li> <li>• high visibility clothing</li> </ul>		
Types of fires which May occur	<p>Include:</p> <ul style="list-style-type: none"> <li>• Classes A, B, C and F in the standard classification of fires</li> </ul>		
Information	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace fire emergency procedures and policies</li> <li>• relevant OHS and environmental protection regulations</li> <li>• codes of practice and regulations relevant to fire emergencies, including safe working regulations and local authority regulations and procedures</li> <li>• manufacturers specifications for firefighting equipment</li> <li>• technical instructions</li> </ul>		
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	<ul style="list-style-type: none"> <li>• electrified territory regulations</li> <li>• dangerous goods declarations and material safety data sheets (where applicable)</li> <li>• goods manifest</li> <li>• award, enterprise bargaining agreement, and other industrial arrangements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Workplaces	<p>May comprise:</p> <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures</li> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organizational procedures</li> <li>• established procedures</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Ethiopian codes of practice, regulations and safe working systems relevant to the use and checking of firefighting equipment</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the use and checking of firefighting equipment</li> <li>• The chemistry of fire, the effects of different types of material in a fire and the principles underlying the spread of fire and its extinguishment</li> <li>• The different classes of fire, their characteristics and strategies and equipment needed for their extinguishment</li> <li>• Types of firefighting appliances, equipment and systems, their identifying features, principles of operation and the procedures for their use and basic checking of serviceability</li> <li>• Fixed fire prevention and extinguishing installations and their principles of operation</li> <li>• Firefighting techniques, agents and precautions applicable to different classes of fire</li> <li>• Typical problems that can occur with firefighting equipment and operations and appropriate action and solutions</li> <li>• Manufacturer's instructions for the checking of firefighting equipment</li> </ul>

Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when fighting fires using firefighting equipment</li> <li>• Read and comprehend simple statements in English</li> <li>• Read and interpret instructions, procedures, regulations, signs and labels relevant to the use of firefighting equipment and apply them to work activities</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Work safely and collaboratively with others when fighting fires using firefighting equipment</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May arise when using firefighting equipment in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May occur when using firefighting equipment</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify firefighting activities and take appropriate initiatives depending on limits of responsibility, differing workplace contexts, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Identify and correctly select, use and carry out basic checks on firefighting equipment relevant to own work functions</li> <li>• Operate and adapt to differences in firefighting equipment and emergency procedures in the workplace</li> <li>• Monitor performance of firefighting equipment and take appropriate action is required</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level II	
Unit Title	Apply Awareness of Safe Working Rules and Regulations
Unit Code	<a href="#">EIS TRO2 06 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to apply a basic awareness of applicable safe working rules and regulations to work functions in the rail industry. It includes interpreting and applying the applicable safe working rules and protocols; recognizing and reporting unsafe situations; following safe working instructions and procedures; and taking appropriate safety precautions.

Elements	Performance Criteria
1. Interpret applicable safe working rules and regulations	<p>1.1 Relevant procedures for the applicable safe working rules and regulations are identified, accessed and interpreted when carrying out basic <b>work</b> activities as part of rail operation</p> <p>1.2 Skill set is used in the role of Track Vehicle Operator working specifically under <b>occupancy authorities</b> within the general rail infrastructure environment.</p>
2. Apply a basic awareness of applicable safe working rules and regulations	<p>2.1 A basic awareness of relevant safe working regulations is applied to all work activities applicable to the rail functions concerned</p> <p>2.2 <b>Communications</b> are conducted in accordance with the applicable safe working system requirements</p> <p>2.3 Appropriate records, <b>information</b> of communications are maintained as required within the applicable safe working system rules and regulations</p>
3. Recognize and report unsafe situations	<p>3.1 Unsafe situations are identified consistent with a basic awareness of the applicable safe working rules and regulations</p> <p>3.2 Situations in the work environment identified as unsafe are reported to appropriate personnel as per the applicable safe working rules and regulations</p>
4. Follow safe working instructions and procedures	<p>4.1 Where applicable <b>work site safety plans</b>, relevant protocols are followed as specified in the applicable safe working system rules and regulations</p> <p>4.2 Appropriate records and documentation pertinent to safe working protocols are completed in accordance with the requirements of the applicable safe working system rules and regulations</p>

5. Take appropriate safety precautions	5.1 Appropriate <b>safety clothing equipment</b> and safety precautions are interpreted and followed during work activities as per the applicable safe working <b>rules and regulations</b>
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Variable	Range
Work	May include: <ul style="list-style-type: none"> <li>• basic rail operations carried out on the rail network concerned and covered by the applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> </ul>
Work	May occur: <ul style="list-style-type: none"> <li>• by day or night, in both normal and emergency situations and under any conditions of weather</li> </ul>
Occupancy authorities will be:	<ul style="list-style-type: none"> <li>• as defined within the applicable safe working system</li> </ul>
Communications equipment	May include: <ul style="list-style-type: none"> <li>• hand-held or portable equipment</li> <li>• fixed equipment</li> <li>• specialised testing facilities</li> </ul>
Communication protocols will be as specified within applicable safe working system and	May include: <ul style="list-style-type: none"> <li>• general safety</li> <li>• emergency messages</li> <li>• testing communications equipment</li> <li>• transmitting and receiving messages</li> <li>• identification</li> <li>• standard radio terms</li> <li>• phonetic alphabet</li> <li>• spoken figures</li> </ul>
Information and documents	May include: <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• instructions of relevant rail authorities concerning rail safety and operations</li> <li>• workplace procedures, policies and work instructions</li> <li>• relevant occupancy authorities (where applicable)</li> <li>• train authorities (where applicable)</li> <li>• worksite safety plan (where applicable)</li> <li>• Emergency Response Plan (ER Plan) and emergency procedure manuals</li> <li>• train running information (TRI)</li> <li>• train notices</li> <li>• train register books</li> </ul>

	<ul style="list-style-type: none"> <li>• failure reports</li> <li>• local instructions</li> <li>• operating and maintenance instructions of relevant equipment manufacturers</li> <li>• voice communications log</li> <li>• safe working forms</li> </ul>
Where applicable, work site safety plans will be:	<ul style="list-style-type: none"> <li>• as defined within the applicable safe working system</li> </ul>
Safety clothing and equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• sunscreen and sunglasses</li> <li>• insect repellent</li> <li>• safety glasses, headwear, mask, footwear and gloves</li> <li>• hearing protection</li> <li>• safety devices</li> <li>• lighting including strobe lighting</li> <li>• hand tools</li> </ul>
Rules related to the use and operation of track vehicles and equipment will be:	<ul style="list-style-type: none"> <li>• as defined within applicable safe working system</li> </ul>
Where applicable, worksite protection equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• joint occupancy rules</li> <li>• blocking facilities (manual and electronic)</li> <li>• trackside signs</li> <li>• audible warning signs</li> <li>• warning devices, whistles and sirens</li> <li>• partitioning materials and structures</li> <li>• barriers, lights and flags</li> <li>• fixed and mobile communications equipment</li> </ul>
Applicable legislation, regulations and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• legislation and industrial agreements, including workplace agreements and awards</li> <li>• relevant national and state/territory dangerous goods legislation</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
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<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• A basic awareness of applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental protection legislation and policies</li> <li>• A basic understanding of systems and occupancy authorities</li> <li>• An overview of system requirements</li> <li>• A basic understanding of safe working system types</li> <li>• A basic awareness of system limitations</li> <li>• A basic understanding of the applicable safe working system</li> <li>• An understanding of route integrity requirements including: general requirements, position of points and route occupancy requirements</li> <li>• Communication protocols as they relate to the functions of the occupation concerned</li> <li>• Safe working rules and protocols as they relate to the functions of the occupation concerned</li> <li>• Rail terminology as defined in the applicable safe working system</li> <li>• Action to be taken in the event of identified unsafe situations and emergencies within the limits of responsibility the occupation concerned</li> </ul>
<p>Underpinning Skills</p>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others applicable to the rail operations concerned</li> <li>• Read and interpret relevant rules, regulations and instructions applicable to the rail operations concerned</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to safe working requirements applicable to the rail functions concerned</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others to fulfil safe working requirements applicable to the rail operations concerned</li> <li>• Implement contingency plans for unplanned events</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Recognise problems and hazards that May arise during rail operations and take appropriate action</li> <li>• Modify activities depending on differing operational</li> </ul>

	<p>contingencies, risk situations and environments</p> <ul style="list-style-type: none"> <li>• Adapt to differences in equipment and procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be accessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level II	
Unit Title	Monitor and Process Attendance Records
Unit Code	<a href="#">EIS TRO2 07 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to monitor and process attendance records in accordance with regulatory and workplace requirements, including monitoring attendance records and checking and processing attendance information. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Elements	Performance Criteria
1. Monitor attendance records	<p>1.1 Hours <b>worked</b>, as recorded for each employee, are accessed, checked and documented on a prescribed time basis</p> <p>1.2 <b>Employee</b> record cards or other daily time records showing hours absent are followed up to ensure authorized absences are accurately recorded</p> <p>1.3 Employee daily time records showing additional hours worked are followed up to determine whether additional payments are authorized`</p> <p>1.4 Unauthorized absences are notified to appropriate personnel on a timely basis to ensure follow-up action is initiated according to <b>applicable legislation and regulation</b></p> <p>1.5 Employee attendance sheets are received, checked and processed to ensure accurate employee records are maintained</p>
2. Process attendance records	<p>2.1 Unexplained absences are identified, confirmed and appropriate personnel are notified for follow-up action according to the <b>work place procedure</b></p> <p>2.2 Timesheets, or equivalent, are checked and forwarded to payroll department for costing purposes</p> <p>2.3 Employee record cards or other identification system requirements are checked and redistributed on a timely basis</p>
3. Elements of human resources systems	<p>3.1 <b>Workplace's timekeeping practices</b>, conditions of employment, labor/costing practices, industrial agreements and awards, auditing requirements, payroll practices and procedures, personnel records requirements, and computer based personnel recording systems relevant to the monitoring and processing of attendance records</p> <p>3.2 Instructions, procedures and <b>information</b> relevant to work</p>

	<p>activities are read and interpreted</p> <p>3.3 Effective <b>communication</b> is used with others when monitoring and processing attendance records</p>
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Variable	Range
Work	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>in a range of work environments</li> <li>by day or night</li> </ul>
Employees include:	all personnel whose attendance is recorded for timekeeping purposes
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>federal and state/territory award legislation</li> <li>relevant state/territory regulations and codes of practice relevant to the monitoring and processing of attendance records</li> <li>relevant state/territory privacy legislation</li> <li>relevant state/territory OHS and environmental protection legislation</li> <li>workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation</li> <li>workers compensation regulations</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>company procedures</li> <li>enterprise procedures</li> <li>organisational procedures</li> <li>established procedures</li> </ul>
Timekeeping records and systems	<p>May include, but are not limited to:</p> <ul style="list-style-type: none"> <li>clock cards/identification numbers</li> <li>swipe cards/physical recognition systems</li> <li>manual clocking systems</li> <li>integrated attendance sheet systems</li> <li>maternity/paternity leave</li> <li>jury leave</li> <li>rest breaks between shifts/overtime</li> </ul>
Information on attendance records	<p>May be obtained from:</p> <ul style="list-style-type: none"> <li>Timesheets</li> <li>absentee records</li> <li>payroll department</li> <li>record cards</li> <li>identification system requirements</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>regulatory and/or code requirements relevant to the maintenance of attendance records</li> <li>workplace procedures and policies for the monitoring and processing of attendance records</li> </ul>

	<ul style="list-style-type: none"> <li>• employees timesheets, absentee records, record cards or computer files</li> <li>• operations manuals, job specifications and induction documentation</li> <li>• manufacturers specifications for office equipment</li> <li>• conditions of service, award, enterprise bargaining agreement, and other industrial arrangements</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• Phone</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• RF systems</li> <li>• oral, aural or signed communications</li> </ul>

<b>Evidence Guide</b>			
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Regulations and codes of practice relevant to the monitoring and processing of attendance records</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the monitoring and processing of attendance records</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the monitoring and processing of attendance records</li> <li>• Elements of human resources systems relevant to the monitoring and processing of attendance records, including: workplace's timekeeping practices, conditions of employment, labour/costing practices, industrial agreements and awards, auditing requirements, payroll practices and procedures, personnel records requirements, and computer based personnel recording systems</li> <li>• Problems that May occur when monitoring and processing attendance records and appropriate action that can be taken to resolve the problems</li> <li>• Documentation and reporting requirements for the monitoring and processing of attendance records including</li> </ul>		
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	computer based personnel recording systems
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when monitoring and processing attendance records</li> <li>• Read and interpret instructions, procedures and information relevant to work activities</li> <li>• Interpret conditions of employment and industrial agreements and awards</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to work activities</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Conduct simple calculations required when monitoring and processing attendance records</li> <li>• Work collaboratively with others when monitoring and processing attendance records</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any problems identified when monitoring and processing attendance records in accordance with regulatory requirements and workplace procedures</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies and environments</li> <li>• Work systematically with required attention to detail</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use relevant computer, communication and office equipment required when monitoring and processing attendance records</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be accessed through:</p> <ul style="list-style-type: none"> <li>• Interview/ Written Test</li> <li>• Observation/ Demonstration with Oral Questioning</li> </ul>
Context for Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level II	
Unit Title	Monitor and Record Rolling Stock Locations
Unit Code	<a href="#">EIS TRO2 08 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to monitor and record rolling stock locations in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes identifying rolling stock, identifying planned movements, and verifying and recording movements in accordance with workplace requirements.

Elements	Performance Criteria
1. Identify rolling stock	<p>1.1 Current location and operational status of <b>rolling stock</b> are identified</p> <p>1.2 Capacity, type and operational specification of rolling stock are identified</p> <p>1.3 Current train consist information is obtained and interpreted</p> <p>1.4 <b>Operation</b> of management system is reviewed against observed status in accordance with workplace procedures</p> <p>1.5 Operational instructions is interpreted and followed in prioritising <b>work</b></p>
2. Identify planned movements	<p>2.1 Proposed rolling stock movements are identified</p> <p>2.2 Status of current train movement plan is confirmed</p> <p>2.3 Depending on differing operational <b>contingencies</b>, risk situations and environments activities are modified</p> <p>2.4 Changes to planned train movements are checked and confirmed in accordance with workplace <b>procedures</b></p> <p>2.5 Work is done collaboratively with others when monitoring and recording rolling stock locations</p>
3. Verify and record movement	<p>3.1 <b>Location</b> and operational status of rolling stock are confirmed</p> <p>3.2 <b>Information</b> on location of rolling stock is provided where appropriate</p> <p>3.3 <b>Operational management system</b> is updated with information on <b>rolling stock movement</b> in accordance with workplace procedures</p>

Variable	Range
Rolling stock	Includes: <ul style="list-style-type: none"> <li>• all types of wagons and carriages</li> <li>• electric locomotives</li> <li>• multiple units including electric multiple units</li> <li>• rail tractors</li> <li>• diesel locomotives</li> <li>• railcars</li> <li>• steam locomotives</li> <li>• track maintenance vehicle</li> </ul>
Operations	May be conducted: <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all relevant weather conditions</li> </ul>
Work	May be conducted in: <ul style="list-style-type: none"> <li>• restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> </ul>
Work	May involve exposure to: <ul style="list-style-type: none"> <li>• chemicals</li> <li>• dangerous or hazardous substances</li> <li>• movements of equipment, goods and vehicles</li> </ul>
Contingency plans and contingencies	May involve: <ul style="list-style-type: none"> <li>• emergency procedures manuals</li> <li>• ADG Code</li> <li>• safe working systems and requirements</li> </ul>
Applicable procedures and codes	May include: <ul style="list-style-type: none"> <li>• relevant state/territory regulations, codes of practice and safe working system requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
Locations	May include: <ul style="list-style-type: none"> <li>• tracks and sidings within the workplace's network</li> <li>• other rail authorities' network</li> <li>• customer depots, sidings and yards</li> <li>• maintenance and servicing sites</li> <li>• yards within the workplace's network</li> </ul>
Information/ documents	May include: <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• workplace procedures and job specification</li> <li>• induction and training materials</li> <li>• train movement plans</li> <li>• train schedules</li> <li>• rolling stock specifications</li> <li>• rolling stock records</li> </ul>



	<ul style="list-style-type: none"> <li>• emergency procedures manual</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Operational management systems	<p>Include:</p> <ul style="list-style-type: none"> <li>• both the manual and computerised components for conveying, verifying and recording information and instructions between internal and external customers including other workplaces or individuals to whom a service is provided</li> </ul>
Proposed rolling stock movements	<p>Include those originating from:</p> <ul style="list-style-type: none"> <li>• scheduled services</li> <li>• implementation of contingency plans</li> <li>• adjusted services</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Skills	<p>Demonstrate skills on:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when monitoring and recording rolling stock locations</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the monitoring and recording of rolling stock locations</li> <li>• Complete documentation related to the monitoring and recording of rolling stock locations</li> <li>• Document and record rolling stock locations</li> <li>• Update workplaces information system</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when monitoring and recording rolling stock locations</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any problems, faults or malfunctions identified when monitoring and recording rolling stock locations in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May arise when monitoring and recording rolling stock locations</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during the monitoring</li> </ul>

	<p>and recording of rolling stock locations</p> <ul style="list-style-type: none"> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select and use relevant office equipment and resources when monitoring and recording rolling stock locations</li> <li>• Gather information on train movements</li> <li>• Operate systems and computer programs to track rolling stock movements</li> <li>• Implement safe working systems when monitoring and recording rolling stock locations</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul> <p>Operate and adapt to differences in equipment in accordance with standard operating procedures</p>
<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Workplace procedures for the monitoring and recording of rolling stock locations, including: the operation of computer programs for rolling stock tracking, load calculation and allocation requirements, monitoring shunting and marshalling operations, communication protocols, and completing relevant documentation</li> <li>• Systems and computer programs for rolling stock tracking</li> <li>• Type, specifications, capacity, characteristics and features of rolling stock</li> <li>• Track restrictions</li> <li>• Track specifications</li> <li>• Load handling equipment use and capacities</li> <li>• Safe working systems and requirements</li> <li>• Relevant documentation requirements</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Problems that May occur when monitoring and recording rolling stock locations and related action that should be taken</li> <li>• Workplace hazards that May exist when monitoring and recording rolling stock locations and ways in which the risks involved May be eliminated or controlled</li> </ul>

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level II	
Unit Title	Use Info Technology Devices in the Workplace
Unit Code	<a href="#">EIS TRO2 09 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to use info technology devices in the workplace including identifying info technology equipment and systems; setting up and shutting down equipment for use; and inputting, retrieving and presenting files/data in accordance with work requirements.

Elements	Performance Criteria
1. Identify info technology systems	<p>1.1 Types of <b>info technology equipment</b> used in the work area are identified</p> <p>1.2 Functions of equipment, component parts and accessories are identified for <b>operation</b></p> <p>1.3 Applications for workplace activities of the different info technology equipment and systems are interpreted</p> <p>1.4 Routine faults in operating systems, software applications and operator errors are identified and reported to the appropriate <b>personnel</b></p> <p>1.5 Sources of information on rectifying/reporting faults with operating equipment, systems and <b>computer application</b> are identified</p> <p>1.6 Relevant <b>communication</b> equipment is used</p>
2. Access and operate computer-based equipment and systems	<p>2.1 <b>Work place</b> and equipment are adjusted to meet ergonomic requirements and workplace policy and procedures</p> <p>2.2 Systems are accessed and checked where required for viruses</p> <p>2.3 Equipment is set up for <b>work</b> requirements in accordance with workplace procedures and manufacturers guidelines</p> <p>2.4 Operating manuals and/or help screens for info technology equipment and software are used to inform work practices</p> <p>2.5 Software packages and accessories for required application are selected and accessed</p> <p>2.6 Required file and/or data to be accessed is identified</p> <p>2.7 Files/data are filed according to workplace</p> <p>2.8 Shut-down procedures for files, applications and equipment are followed</p>

<p>3. Input, store and present files/data</p>	<p>3.1 Data is entered using appropriate equipment, keyboard/mouse, bar code reader, touch screen or other system</p> <p>3.2 Accurate input is confirmed</p> <p>3.3 Files are accessed in accordance with <b>workplace procedures</b></p> <p>3.4 Data is manipulated to suit work requirements and checked for accuracy</p> <p>3.5 Saved files are accessed through relevant directories</p> <p>3.6 Information and disk(s) are stored where appropriate</p> <p>3.7 <b>Information</b> is presented using computerized projection facilities where required</p>
<p>4. Implement workplace procedures for management and security of data</p>	<p>4.1 Security procedures are followed in accordance with workplace procedures</p> <p>4.2 Precautions against the loss or corruption of data are followed in accordance with workplace procedures</p>

Variable	Range
<p>Info technology equipment</p>	<p>May include:</p> <ul style="list-style-type: none"> <li>• keyboards</li> <li>• monitors</li> <li>• bar code readers</li> <li>• printers</li> <li>• central processors</li> <li>• CD-ROM drives</li> <li>• floppy disk drives</li> <li>• zip drives</li> <li>• USB drives</li> <li>• touch screens</li> <li>• Personal Digital Assistant (PDA)</li> <li>• visual display units</li> <li>• desktop computers</li> <li>• laptop computers</li> <li>• radio frequency devices</li> <li>• computer driven projectors</li> </ul>
<p>The operations</p>	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> <li>• in a range of typical weather conditions</li> </ul>
<p>Personnel in the work area</p>	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace personnel</li> </ul>

	<ul style="list-style-type: none"> <li>• site visitors</li> <li>• contractors</li> <li>• official representatives</li> </ul>
Computer applications	<p>May include:</p> <ul style="list-style-type: none"> <li>• word processing software</li> <li>• inventory control and stock management systems</li> <li>• electronic data interchange (EDI) systems</li> <li>• information databases and storage systems</li> <li>• invoicing and payment systems</li> <li>• manifests control systems</li> <li>• work organisation systems</li> <li>• networks including intranet/internet browsers</li> <li>• computerised presentation software</li> <li>• computerised control/monitoring systems</li> </ul>
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• phone/mobile phones</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• radio</li> <li>• oral, aural or signed communications</li> </ul>
Workplaces	<p>May comprise:</p> <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
Work	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• in a range of work contexts</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• goods identification numbers and codes</li> <li>• manifests, bar codes, goods and container identification/serial number</li> <li>• manufacturer's instructions concerning the use computing equipment</li> <li>• workplace procedures and policies for the use of computer equipment</li> <li>• supplier and/or client instructions</li> <li>• material safety data sheets</li> <li>• relevant codes of practice</li> <li>• safe working or other notices</li> <li>• relevant legislation, regulations and related documentation</li> <li>• award, enterprise bargaining agreement, other industrial arrangements</li> <li>• standards and certification requirements</li> </ul>

	<ul style="list-style-type: none"> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
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<b>Evidence Guide</b>	
<b>Critical Aspects of Competence</b>	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations:               <ul style="list-style-type: none"> <li>• correctly operating all info technology devices used within the workplace in accordance with operational requirements</li> <li>• correctly identifying fault finding procedures</li> </ul> </li> </ul>
<b>Underpinning Knowledge and Attitudes</b>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant OHS procedures and guidelines concerning the use of computer equipment in the workplace</li> <li>• OHS risks and hazards when using computer equipment for work tasks, and ways of controlling the risks/hazards</li> <li>• Workplace procedures for the use of computer equipment and application software appropriate for work role</li> <li>• Typical problems that can occur when using info technology devices, and computer applications in the workplace and related appropriate action that can be taken to prevent or solve them</li> <li>• Housekeeping standards and procedures required in the workplace</li> <li>• Workplace or site layout</li> </ul>
<b>Underpinning Skills</b>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when using info technology devices in the workplace</li> <li>• Read and interpret instructions, procedures, information and manuals relevant to the use of info technology devices in the workplace</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Access and/or complete electronic documentation through the use of info technology devices in the workplace</li> <li>• Identify and use computer equipment, software, processes and procedures required within the context of the job</li> <li>• Work collaboratively with others when using info technology devices in the workplace</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May arise when using info technology devices in the workplace in accordance with</li> </ul>

	<p>regulatory requirements and workplace procedures</p> <ul style="list-style-type: none"> <li>• Implement contingency plans for unanticipated situations that May arise when using info technology devices in the workplace including the use of security and backup software and procedures</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist when using info technology devices in the workplace</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Adapt to differences in software and equipment in accordance with standard operating procedures</li> </ul> <p>Maintain eye-hand coordination</p>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.



Occupational Standard: Railway operation Level II	
Unit Title	Use and Maintain Minor Mechanical Equipment
Unit Code	<a href="#">EIS TRO2 10 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to use and maintain minor mechanical equipment in accordance with workplace requirements, including carrying out pre-operation checks on equipment, operating mechanical equipment in accordance with workplace requirements, conducting routine maintenance, and securing and storing equipment in accordance with workplace procedures.

Elements	Performance Criteria
1. Carry out pre-operation checks	<p>1.1 Pre-operational checks are conducted to manufacturers specifications to ensure optimum functionality of <b>equipment</b></p> <p>1.2 Necessary adjustments to equipment are made to ensure <b>efficient operation</b>, according to manufacturer's instructions</p> <p>1.3 Faulty equipment is reported to relevant person to ensure equipment is safe and effective to use</p> <p>1.4 <b>Materials</b> such as tools and <b>mechanized equipment</b> are used when using and maintaining minor mechanical equipment and the procedures and precautions for their care, use and storage</p>
2. Operate mechanical equipment	<p>2.1 Equipment is operated in accordance with manufacturers or workplace operating instructions to ensure safe and effective operation</p> <p>2.2 Appropriate personal <b>safety equipment</b> is used to minimize the risk of injury to operator</p> <p>2.3 <b>Environmental hazards</b> in the work operation are eliminated or controlled appropriately when using equipment to ensure safe working conditions</p> <p>2.4 Assisting personnel are given clear instructions and <b>information</b> about their duties if required to ensure safe and effective working conditions</p>
3. Conduct routine maintenance	<p>3.1 Equipment is cleaned and maintained in accordance with manufacturers specifications to ensure optimum functionality</p> <p>3.2 Detailed and accurate records are maintained according to <b>workplace procedures</b></p> <p>3.3 Depending on differing operational <b>contingencies</b>, risk</p>

	situations and environments activities modified
4 Secure and store	<p>4.1 Equipment is handled and transported in a safe, secure, efficient manner to minimize risk of injury to personnel and damage to equipment</p> <p>4.2 Equipment is stored and secured according to manufacturers or workplace procedures to prevent damage and losses of equipment</p> <p>4.3 Instructions, procedures, information and signs relevant to using and maintaining minor mechanical equipment instructions, procedures, information and signs relevant to using and maintaining minor mechanical equipment are read and interpreted according to the <b><i>applicable rules and regulation</i></b></p>

Variable	Range
Equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• mechanical handling/lifting equipment</li> <li>• basic hand tools</li> <li>• small plant such as motorised borers and saws</li> </ul>
Operations May be carried out in typical transport situations,	<p>Including:</p> <ul style="list-style-type: none"> <li>• operations conducted at day or night</li> <li>• typical weather conditions</li> <li>• in confined spaces, exposed conditions and controlled or open environment</li> </ul>
Materials	<p>May include:</p> <ul style="list-style-type: none"> <li>• servicing materials such as lubricants</li> <li>• related materials and consumables needed when using tools, e.g. nails, screws, grease, etc.</li> </ul>
Operators of mechanised equipment	<p>Must have:</p> <ul style="list-style-type: none"> <li>• undertaken training</li> <li>• where appropriate, hold the relevant licence, permit or certificate</li> <li>• be recognised as competent for the class of machinery being used</li> </ul>
Safety equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• sunscreen and sun glasses</li> <li>• insect repellent</li> <li>• gloves, safety headwear, mask and footwear</li> <li>• portable radios</li> <li>• flags and hand lamps</li> <li>• safety glasses and hearing protection</li> <li>• safety devices</li> </ul>

Environmental hazards	<p>May include:</p> <ul style="list-style-type: none"> <li>leaking oil and fuel</li> <li>inappropriate disposal of fluids in drains or sewerage systems</li> <li>inappropriate disposal of waste and rubbish</li> </ul>
Information/ records	<p>May include:</p> <ul style="list-style-type: none"> <li>workplace operational and technical instructions and procedures for the use and maintenance of minor mechanical equipment</li> <li>relevant regulations including state/territory safety codes of practice and safe working regulations</li> <li>maintenance checklists and records for the use and maintenance of minor mechanical equipment</li> <li>tool/equipment manufacturers instructions, specifications and recommended procedures</li> <li>precautions and procedures to be adopted to protect the environment when use and maintaining minor mechanical equipment</li> <li>OHS procedures</li> <li>QA plans and procedures</li> <li>data and document control procedures</li> <li>relevant Ethiopian standards and certification requirements</li> <li>emergency procedures</li> <li>award, enterprise bargaining agreement, other industrial arrangements</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>company procedures</li> <li>enterprise procedures</li> <li>organisational procedures</li> <li>established or standard procedures</li> </ul>
Contingency processes	<p>May relate to:</p> <ul style="list-style-type: none"> <li>personal injury</li> <li>tool malfunctions</li> </ul>
Applicable regulations and legislation	<p>May Include:</p> <ul style="list-style-type: none"> <li>relevant state/territory regulations, codes of practice and safe working system requirements</li> <li>the Code of Practice for the Defined Interstate Rail Network in situations where operations are carried out on that network</li> <li>relevant state/territory OHS legislation</li> <li>relevant state/territory environmental protection legislation</li> <li>workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation</li> <li>workers compensation regulations</li> </ul>

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:</li> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant sections of state and territory codes of practice and safe working system requirements including the Code of Practice for the Defined Interstate Rail Network in situations where operations are carried out on that network</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Workplace procedures and policies for the use and maintenance of minor mechanical equipment</li> <li>• Problems that can occur when using and maintaining minor mechanical equipment and related action that should be taken</li> <li>• Tools and equipment used when using and maintaining minor mechanical equipment and the procedures and precautions for their care, use and storage</li> <li>• Workplace documentation and records requirements</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Workplace component and material supply system</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when using and maintaining minor mechanical equipment</li> <li>• Read and interpret instructions, procedures, information and signs relevant to using and maintaining minor mechanical equipment</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to using and maintaining minor mechanical equipment</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when using and maintaining minor mechanical equipment</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May arise when using and maintaining</li> </ul>

	<p>minor mechanical equipment in accordance with regulatory requirements and workplace procedures</p> <ul style="list-style-type: none"> <li>• Plan own work including predicting consequences and identifying improvements</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Identify, select and efficiently and effectively use relevant tools and equipment</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Monitor performance of equipment</li> <li>• Service equipment in terms of maintenance schedule and standard operating procedures</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level II	
Unit Title	Operate Specialized Load Shifting Equipment
Unit Code	<a href="#">EIS TRO2 11 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to operate specialized load shifting equipment in accordance with workplace requirements and relevant regulatory requirements, including planning work for the current working conditions; using controls and equipment operating systems to manage movement of the unit and accessory operations; locating load and identifying load characteristics; moving materials and loads; monitoring and operating controls; and stopping, parking and securing equipment after operation.

Elements	Performance Criteria
1. Plan work for the current working conditions	<p>1.1 Traffic flow and <b>workplaces</b> conditions are constantly assessed and anticipated to allow safe operation to ensure no injury to people, or damage to equipment, loads or facilities</p> <p>1.2 Characteristics of the load are taken into account to ensure that, where applicable, appropriate attachments are used to transport the load</p> <p>1.3 Any occurrences in the work area that <b>May</b> affect the safety and efficiency of operations or <b>customers</b> are reported to the appropriate personnel</p> <p>1.4 <b>Work</b> is performed under some supervision, generally within a team environment.</p>
2. Use controls and equipment operating systems to manage movement of the unit and accessory operations	<p>2.1 <b>Equipment</b> is prepared and any appropriate attachment fitted</p> <p>2.2 Gear and operational levers are checked to ensure that they are in the neutral position prior to inserting ignition key and starting engine</p> <p>2.3 Engine is started in accordance with manufacturers guidelines to bring the engine to speed</p> <p>2.4 Instruments and gauges are monitored during start-up and operations to ensure that operation is within manufacturers specifications and enterprise safety requirements</p> <p>2.5 Engine power is managed for efficiency of equipment movement and economy of equipment operations</p> <p>2.6 Equipment operations are conducted within the manufacturer's specified torque range</p> <p>2.7 Any faults or damage to equipment which needs <b>requirement of work</b> for solution are immediately reported to the appropriate personnel</p>

3. Locate load and identify load characteristics	<p>3.1 Load is located and identified according to instructions and <b>information</b></p> <p>3.2 Loading and unloading plans are followed to ensure efficiency and safety of operations</p> <p>3.3 Characteristics of the load are taken into account to ensure that appropriate loading and unloading procedures are followed</p> <p>3.4 <b>Hazardous</b> goods are identified and relevant procedures are taken into account when planning and conducting the work</p> <p>3.5 Load weight and dimensions are within the capacity of the equipment</p>
4. Move materials and loads	<p>4.1 Equipment is maneuvered and positioned using <b>personal safety equipment</b> with smooth and controlled movements</p> <p>4.2 Maneuvers are within the limits of the equipment and in line with manufacturers specifications</p> <p>4.3 Materials are moved ensuring no injury to personnel or damage to equipment or goods</p>
5. Monitor and operate controls	<p>5.1 Equipment controls are monitored and operated in accordance with manufacturers operating instructions</p> <p>5.2 Control systems are understood and acted upon through <b>communication</b> in accordance with statutory authority <b>regulations</b>, manufacturers guidelines and site operating procedures</p> <p>5.3 Control faults are identified and reported in accordance with manufacturer's instructions and <b>workplace procedure</b></p>
6. Stop, park and secure equipment	<p>6.1 Equipment is brought to a controlled halt within manufacturers guidelines</p> <p>6.2 Equipment is parked without injury to personnel or damage to equipment, loads or facilities in accordance with company procedures</p> <p>6.3 Equipment is secured on a flat, even surface and not close to doorways, aisles, access-ways or blind corners and in accordance with securing procedures for the appropriate equipment</p>

Variable	Range
Workplaces	May comprise: <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
Customers	May be: <ul style="list-style-type: none"> <li>• internal or external</li> </ul>
Work	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> </ul>

Work	<p>May be conducted in:</p> <ul style="list-style-type: none"> <li>• limited or restricted spaces</li> <li>• holds on ships</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> <li>• even or uneven surfaces</li> <li>• wet or dry surfaces</li> </ul>
Equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• reach stackers</li> <li>• straddle trucks</li> <li>• excavators</li> <li>• front-end loaders (over 10 tonne)</li> <li>• bulldozers (both in transport and shipping terminals and in the holds of ships)</li> <li>• straddle carriers</li> </ul>
Requirements for work	<p>May include:</p> <ul style="list-style-type: none"> <li>• site restrictions and procedures</li> <li>• use of safety and personal protective equipment</li> <li>• communications equipment</li> <li>• specialised lifting and/or handling equipment</li> <li>• additional gear and equipment</li> <li>• noise restrictions</li> <li>• hours of operations</li> <li>• authorities and permits</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace procedures and policies for the operation of the specialised load shifting equipment concerned</li> <li>• goods identification numbers and codes</li> <li>• manifests, picking slips, merchandise transfers, stock requisitions and bar codes</li> <li>• manufacturers specifications for equipment/tools</li> <li>• equipment identification labels, bar codes and serial numbers</li> <li>• supplier and/or client instructions</li> <li>• relevant OHS requirements and policies</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• material safety data sheets where applicable</li> <li>• codes of practice including the National Standards for Manual Handling and the Industry Safety Code</li> <li>• relevant legislation, regulations and related documentation including the ADG Code</li> <li>• award, enterprise bargaining agreement and other industrial arrangements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Hazards in the work area	<p>May include exposure to:</p> <ul style="list-style-type: none"> <li>• chemicals and fumes</li> <li>• dangerous or hazardous substances</li> </ul>



	<ul style="list-style-type: none"> <li>• stationary and moving machinery, goods, materials and vehicular traffic</li> <li>• contamination of, or from, materials being handled</li> <li>• service lines</li> <li>• spills, leakages and ruptures</li> <li>• dust/vapours</li> <li>• faulty gear/equipment/tools</li> </ul>
Personal protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• respirators and fume masks</li> <li>• protective clothing</li> <li>• high visibility clothing</li> </ul>
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• phone</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• electronic data interchange (EDI)</li> <li>• RF communications</li> <li>• bar code readers</li> <li>• oral, aural or signed communications</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant codes, regulations and licence/permit requirements pertaining to the operation of the specialised load shifting equipment concerned including the ADG Code (where applicable)</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• licence, patent or copyright arrangements</li> <li>• water and road use and licence arrangements</li> <li>• export/import/quarantine/bond requirements</li> <li>• workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation</li> <li>• workers compensation regulations</li> </ul>

<b>Evidence Guide</b>			
Critical Aspects of Competence	Demonstrates skills and knowledge to: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> <li>• Regulations relevant to the operation of specialised load shifting equipment, including, where relevant, the ADG Code and relevant bond, quarantine or other legislative requirements</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the operation of the specialised load shifting equipment</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the operation of the specialised load shifting equipment</li> <li>• The purpose, characteristics, capabilities, requirements and limitations of the specialised load shifting equipment</li> <li>• Conveyed materials' potential for toxicity, re activeness, material grade, type and purpose including information from relevant material safety data sheets and ADG Code documentation (where applicable)</li> <li>• Problems that May occur when operating specialised load shifting equipment and appropriate action that can be taken to resolve the problems</li> <li>• Operational safety requirements and precautions for the specialised load shifting equipment concerned</li> <li>• Documentation and record requirements</li> <li>• Housekeeping standards procedures required in the workplace</li> <li>• Site layout and obstacles</li> <li>• Relevant permit and licence requirements</li> </ul>		
Underpinning Skills	Demonstrate skills to: <ul style="list-style-type: none"> <li>• Communicate effectively with others when operating specialised load shifting equipment</li> <li>• Read and interpret instructions, procedures, information and signs relevant to work activities</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the operation of specialised load shifting equipment</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when operating specialised</li> </ul>		
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	<p>load shifting equipment</p> <ul style="list-style-type: none"> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May arise when operating specialised load shifting equipment in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unexpected events when operating specialised load shifting equipment</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during the operation of specialised load shifting equipment</li> <li>• Plan own work including predicting consequences and identifying improvements</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Apply fatigue management knowledge and techniques</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select and use relevant gear and accessories when operating specialised load shifting equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Monitor performance of specialised load shifting equipment and take appropriate action where required</li> <li>• Service equipment in terms of maintenance schedule and standard operating procedures</li> <li>• Check and replenish fluids and carry out lubrication processes in the course of work activities</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level II	
Unit Title	Apply Fatigue Management Strategies
Unit Code	<a href="#">EIS TRO2 12 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to apply fatigue management strategies, including identifying and acting upon signs of fatigue and implementing appropriate strategies to minimize fatigue during work activities, in accordance with legislative and regulatory requirements.

Elements	Performance Criteria
1. Identify and act upon signs of fatigue	<p>1.1 Potential causes of fatigue are identified and action is taken to minimize their effects in accordance with company procedures</p> <p>1.2 Personal warning signs of fatigue are recognized and necessary steps are taken in accordance with <b>operating procedures</b> to ensure that effective work capability and alertness are maintained</p> <p>1.3 <b>Information</b> on source of fatigue is recognized and measures are taken according to the workplace procedure</p> <p>1.4 Symptoms of fatigue is recognise and appropriate action is take in accordance with fatigue management <b>regulations</b></p>
2. Implement strategies to minimize fatigue	<p>2.1 <b>Workplace</b> procedures are assessed to minimize fatigue</p> <p>2.2 <b>Work related factors</b> which increase the risk of fatigue-related accidents and safety incidents are understood and minimized</p> <p>2.3 Strategies for <b>fatigue risk management</b> are implemented in accordance with company policy</p> <p>2.4 Lifestyle choices are made which promote the effective long-term <b>fatigue management</b></p> <p>2.5 Effective practices in combating fatigue are adopted and applied</p> <p>2.6 Personal fatigue management strategies due to <b>worker /operator</b> are communicated to other relevant people</p> <p>2.7 Appropriate counter measures are <b>scheduled</b> to combat fatigue</p>

Variable	Range
Operating procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• standard operating procedures</li> <li>• company procedures</li> </ul>

	<ul style="list-style-type: none"> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information and documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• federal and state/territory regulations and guidelines concerning fatigue management in various transport and workplace situations</li> <li>• workplace instructions and procedures on fatigue management</li> <li>• relevant OHS regulations and procedures</li> <li>• work schedules and shift rosters</li> <li>• emergency procedures</li> <li>• log book or record book (where required)</li> <li>• records and reports of fatigue-related errors and safety incidents</li> <li>• relevant standards and certification requirements</li> <li>• quality assurance procedures</li> </ul>
Regulations	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant regulations and codes of the federal government and the state/territory regulatory authorities concerning fatigue management</li> <li>• relevant state/territory road rules</li> <li>• relevant rail industry safe working codes and regulations (where applicable)</li> <li>• relevant state/territory permit regulations and requirements</li> <li>• relevant state/territory OHS legislation</li> </ul>
Workplace	<p>May include:</p> <ul style="list-style-type: none"> <li>• any work environment requiring safety critical operational judgements to be made and in particular when operating equipment, vehicles, load shifting equipment, trains, marine vessels and aircraft at night</li> </ul>
Work-related factors	<p>that May include:</p> <ul style="list-style-type: none"> <li>• work demands such as: workload, work duration, shift pattern, time of day, frequency and duration of breaks and the type of work (such as working in isolation, repetitive tasks and boring, monotonous or under-challenging tasks)</li> <li>• organisational factors such as: work environment (including temperature, ventilation, continual rhythmic vibration from equipment), payment system, trip and work scheduling, and the predictability of work</li> </ul>
Responsibilities of individual for fatigue risk management	<p>May include:</p> <ul style="list-style-type: none"> <li>• following the organisation's fatigue management policy and procedures</li> <li>• using time away from work appropriately to rest and recover</li> <li>• checking and ensuring fitness for work</li> <li>• reporting symptoms of fatigue</li> <li>• taking action to minimize risk when symptoms of fatigue are recognised</li> </ul>

The need for fatigue management in a range of industry situations	<p>Including:</p> <ul style="list-style-type: none"> <li>• operations conducted at all times but particularly at night</li> <li>• typical weather conditions</li> <li>• while working and/or driving at a workplace, depot, base or warehouse</li> <li>• while working and/or driving at a client's workplace or worksite</li> <li>• driving a motor vehicle on the open road</li> <li>• driving a motor vehicle on a private road</li> <li>• driving a train, locomotive or motive power unit</li> <li>• operating a marine vessel in coastal or international waters</li> <li>• operating an aircraft</li> <li>• operating load shifting equipment</li> <li>• operating safety critical industrial plant and equipment</li> </ul>
Worker/operator-related factors that May contribute to fatigue	<p>Include:</p> <ul style="list-style-type: none"> <li>• lifestyle factors such as: sleep patterns, alcohol and drug use, quantity and timing of food and drink, and opportunities for relaxation with family and friends</li> <li>• working multiple jobs</li> <li>• personal or biological factors such as: state of mental and/or physical health, inadequate sleep, sleep disorders, emotional stress, family responsibilities, relationship difficulties, inadequate competence to complete work tasks, and circadian rhythms</li> </ul>
Schedules	<p>May include:</p> <ul style="list-style-type: none"> <li>• rosters</li> <li>• vehicle schedules</li> <li>• timetabling</li> <li>• work plans</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant codes, regulations, permit and licence requirements related to fatigue management</li> <li>• Relevant OHS regulations as they relate to fatigue</li> <li>• Workplace policies and procedures related to fatigue management and the control of factors that can contribute to fatigue and fatigue-related accidents</li> <li>• Sources of information on fatigue</li> <li>• The risks and hazards created by fatigue in the workplace</li> <li>• How fatigue affects workplace performance</li> <li>• How fatigue contributes to workplace accidents</li> </ul>

	<ul style="list-style-type: none"> <li>• Ways of recognising fatigue</li> <li>• Strategies and ways of managing fatigue</li> <li>• Causes and effects of fatigue on workers/drivers</li> <li>• Factors which increase fatigue-related accidents</li> <li>• Lifestyles which promote the effective long-term management of fatigue</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when applying fatigue management strategies</li> <li>• Read and interpret instructions, procedures, regulations and signs related to fatigue management and apply them to work activities</li> <li>• Recognise symptoms of fatigue and take appropriate action in accordance with fatigue management regulations and workplace procedures</li> <li>• Work collaboratively with others to manage and minimize the effects of fatigue during work activities</li> <li>• Adjust lifestyle patterns to ensure effective fatigue management during work activities</li> <li>• Modify activities and take appropriate initiatives to manage fatigue in the workplace depending on differing work contexts, risk situations and environments</li> <li>• Apply precautions and required action to minimize and control the effects of fatigue when carrying out own work functions</li> <li>• Adapt to changes in rosters and standard operating procedures as they May relate to fatigue management</li> <li>• Participate in identifying and meeting own learning needs on matters related to fatigue management</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level II	
Unit Title	Participate in Workplace Communication
Unit Code	<a href="#">EISTRO2 13 0213</a>
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

Elements	Performance Criteria
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from <b>appropriate sources</b> 1.2 Effective questioning , active listening and speaking skills are used to gather and convey information 1.3 Appropriate <b>medium</b> is used to transfer information and ideas 1.4 Appropriate non- verbal communication is used 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed 1.6 Defined workplace procedures for the location and <b>storage</b> of information are used 1.7 Personal interaction is carried out clearly and concisely
2. Participate in workplace meetings and discussions	2.1 Team meetings are attended on time 2.2 Own opinions are clearly expressed and those of others are listened to without interruption 2.3 Meeting inputs are consistent with the meeting purpose and established <b>protocols</b> 2.4 <b>Workplace interactions</b> are conducted in a courteous manner 2.5 Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to 2.6 Meetings outcomes are interpreted and implemented
3. Complete relevant work related documents	3.1 Range of <b>forms</b> relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents 3.3 Basic mathematical processes are used for routine calculations 3.4 Errors in recording information on forms/ documents are



	<p>identified and properly acted upon</p> <p>3.5 Reporting requirements to supervisor are completed according to organizational guidelines</p>
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Variable	Range
Appropriate sources	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Team members</li> <li>• Suppliers</li> <li>• Trade personnel</li> <li>• Local government</li> <li>• Industry bodies</li> </ul>
Medium	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Memorandum</li> <li>• Circular</li> <li>• Notice</li> <li>• Information discussion</li> <li>• Follow-up or verbal instructions</li> <li>• Face to face communication</li> </ul>
Storage	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Manual filing system</li> <li>• Computer-based filing system</li> </ul>
Protocols	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Observing meeting</li> <li>• Compliance with meeting decisions</li> <li>• Obeying meeting instructions</li> </ul>
Workplace interactions	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Face to face</li> <li>• Telephone</li> <li>• Electronic and two way radio</li> <li>• Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams</li> </ul>
Forms	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Personnel forms, telephone message forms, safety reports</li> </ul>

Evidence Guide	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• Prepared written communication following standard format of the organization</li> <li>• Accessed information using communication equipment</li> <li>• Made use of relevant terms as an aid to transfer information effectively</li> <li>• Conveyed information effectively adopting the formal or informal communication</li> </ul>

Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Effective communication</li> <li>• Different modes of communication</li> <li>• Written communication</li> <li>• Organizational policies</li> <li>• Communication procedures and systems</li> <li>• Technology relevant to the enterprise and the individual's work responsibilities</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• Follow simple spoken language</li> <li>• Perform routine workplace duties following simple written notices</li> <li>• Participate in workplace meetings and discussions</li> <li>• Complete work related documents</li> <li>• Estimate, calculate and record routine workplace measures</li> <li>• Basic mathematical processes of addition, subtraction, division and multiplication</li> <li>• Ability to relate to people of social range in the workplace</li> <li>• Gather and provide information in response to workplace Requirements</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Train Operation Level II	
Unit Title	Work in Team Environment
Unit Code	<a href="#">EISTRO2 14 0313</a>
Unit Descriptor	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

Elements	Performance Criteria
1. Describe team role and scope	<p>1.1 The <b>role and objective of the team</b> are identified from available <b>sources of information</b></p> <p>1.2 Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources</p>
2. Identify own role and responsibility within team	<p>2.1 Individual role and responsibilities within the team environment are identified</p> <p>2.2 Roles and responsibility of other team members are identified and recognized</p> <p>2.3 Reporting relationships within team and external to team are identified</p>
3. Work as a team member	<p>3.1 Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives</p> <p>3.2 Effective and appropriate contributions are made to complement team activities and objectives, based on individual skills and competencies and <b>workplace context</b></p> <p>3.3 Protocols are observed in reporting using standard operating procedures</p> <p>3.4 Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.</p>

Variable	Range
Role and objective of team	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Work activities in a team environment with enterprise or specific sector</li> <li>• Limited discretion, initiative and judgment Maybe demonstrated on the job, either individually or in a team environment</li> </ul>
Sources of information	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Standard operating and/or other workplace procedures</li> <li>• Job procedures</li> </ul>

	<ul style="list-style-type: none"> <li>• Machine/equipment manufacturer's specifications and instructions</li> <li>• Organizational or external personnel</li> <li>• Client/supplier instructions</li> <li>• Quality standards</li> <li>• OHS and environmental standards</li> </ul>
Workplace context	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Work procedures and practices</li> <li>• Conditions of work environments</li> <li>• Legislation and industrial agreements</li> <li>• Standard work practice including the storage, safe handling and disposal of chemicals</li> <li>• Safety, environmental, housekeeping and quality guidelines</li> </ul>

### Evidence Guide

Critical aspects of competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• Operated in a team to complete workplace activity</li> <li>• Worked effectively with others</li> <li>• Conveyed information in written or oral form</li> <li>• Selected and used appropriate workplace language</li> <li>• Followed designated work plan for the job</li> <li>• Reported outcomes</li> </ul>
Underpinning Knowledge and Attitude	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Communication process</li> <li>• Team structure</li> <li>• Team roles</li> <li>• Group planning and decision making</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• Communicate appropriately, consistent with the culture of the workplace</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Train Operation Level II	
Unit Title	Develop Business Practice
Unit Code	<a href="#">EISTRO2 15 0313</a>
Unit Descriptor	This unit specifies the outcomes required to establish a business operation from a planned concept. It includes researching the feasibility of establishing a business operation, planning the setting up of the business, implementing the plan and reviewing operations once commenced.

Elements	Performance Criteria
1. Identify business opportunity	<p>1.1 <b>Business opportunities</b> are investigated and identified</p> <p>1.2 Feasibility study is undertaken to determine likely <b>business viability</b></p> <p>1.3 Market research on product or service is undertaken</p> <p>1.4 Assistance with feasibility study of <b>specialist and relevant parties</b> is sought as required</p> <p>1.5 Impact of emerging or changing technology including e-commerce, on business operations are evaluated</p> <p>1.6 Practicability of business opportunity is assessed in line with perceived risks, returns sought and resources available</p> <p>1.7 Business plan is completed for operation</p>
2. Identify personal business skills	<p>2.1 Financial and business skills available are identified and taken into account when business opportunities are researched</p> <p>2.2 <b>Personal skills/attributes</b> are assessed and matched against those perceived as necessary for a particular business opportunity</p> <p>2.3 <b>Business risks</b> are identified and assessed according to resources available and personal preferences</p>
3. Plan for establishment of business operation	<p>3.1 Business structure and operations are determined and documented</p> <p>3.2 Procedures are developed and documented to guide operations</p> <p>3.3 Financial backing is secured for business operation</p> <p>3.4 Business legal and regulatory requirements are identified and complied</p> <p>3.5 <b>Human and physical resources</b> required to commence business operation are determined</p>

	3.6 Recruitment strategies are developed and implemented
4. Implement establishment plan	<p>4.1 Marketing of business operation is undertaken</p> <p>4.2 Physical and human resources are obtained to implement business operation</p> <p>4.3 <b>Operational unit</b> is established to support and coordinate business operation</p> <p>4.4 Monitoring process is developed and implemented for managing operation</p> <p>4.5 <b>Legal documents</b> are carefully maintained and relevant records are kept and updated to ensure validity and accessibility</p> <p>4.6 Contractual procurement rights for goods and services including <b>contracts with relevant people</b>, negotiated and secured as required in accordance with the business plan</p> <p>4.7 Options for leasing/ownership of business premises identified and contractual arrangements are completed in accordance with the business plan</p>
5. Review implementation process	<p>5.1 Review process for implementation of business operation is developed and implemented</p> <p>5.2 Improvements in business operation and associated management process are identified</p> <p>5.3 Identified improvements are implemented and monitored for effectiveness</p>

Variable	Range
Business opportunities	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• expected financial viability</li> <li>• skills of operator</li> <li>• amount and types of finance available</li> <li>• returns expected or required by owners</li> <li>• likely return on investment</li> <li>• finance required</li> <li>• lifestyle issues</li> </ul>
Business viability	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• opportunities available</li> <li>• market competition</li> <li>• timing/ cyclical considerations</li> <li>• skills available</li> <li>• resources available</li> <li>• location and/ or premises available</li> </ul>

	<ul style="list-style-type: none"> <li>• risk related to a particular business opportunity, especially</li> <li>• in regard to Occupational Health and Safety and</li> <li>• environmental considerations</li> </ul>
Specialist and relevant parties	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• Chamber of commerce</li> <li>• Financial planners and financial institution representatives, business planning specialists and marketing specialists</li> <li>• accountants</li> <li>• lawyers and providers of legal advice</li> <li>• government agencies</li> <li>• industry/trade associations</li> <li>• online gateways</li> <li>• business brokers/business consultants</li> </ul>
Personal skills/attributes	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• technical and/ or specialist skills</li> <li>• business knowledge and skills</li> <li>• entrepreneurship</li> <li>• willingness to take risks</li> </ul>
Business risks	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• occupational health and safety and environmental considerations</li> <li>• relevant legislative requirements</li> <li>• security of investment</li> <li>• market competition</li> <li>• security of premises/ location</li> <li>• supply and demand</li> <li>• resources available</li> </ul>
Human and physical resources	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• software and hardware</li> <li>• office premises</li> <li>• communications equipment</li> <li>• specialist services through outsourcing, contracting and consultancy</li> <li>• staff</li> <li>• vehicles</li> </ul>
Operational unit	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• office location staffed with required personnel and equipped to service and support business</li> <li>• home-based site or other location such as leased or owned property</li> </ul>

Legal documents	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• partnership agreements, constitution documents, statutory books for companies (Register of Members, Register of Directors and Minute Books), Certificate of Incorporation, Franchise Agreements and financial documentation, appropriate software for financial records</li> <li>• recordkeeping including personnel, financial, taxation, OHS and environmental</li> </ul>
Contracts with relevant people	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• expected financial viability</li> <li>• owners, suppliers, employees, landlords, agents, distributors, customers or any person with whom the business has, or seeks to have, a performance-based relationship</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• that a business operation has been planned and implemented from initial research into feasibility of the business and completion of the plan, through to implementing the plan and commencing operations</li> <li>• the ability to evaluate the results of research and assess the likely viability and practicability of a business opportunity, taking into account the current business/market climate and resources available</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Federal and regional government legislative requirements affecting business operations, especially in regard to occupational health and safety (OHS), equal employment opportunity (EEO), industrial relations and anti-discrimination</li> <li>• Technical or specialist skills relevant to the business operation</li> <li>• Financing options</li> <li>• Business systems and operations</li> <li>• Relevant marketing, management, sales and financial concepts</li> <li>• Methods for researching business opportunities</li> <li>• Principles of risk management relevant to the business</li> <li>• Methods of identifying relevant specialist services to complement the business</li> <li>• Forms and administrative systems</li> <li>• Services available and charges</li> <li>• Planning and control systems (sales,</li> <li>• Advertising and promotion, distribution and logistics</li> <li>• Financial recording systems</li> </ul>



	<ul style="list-style-type: none"> <li>• Legal rights and responsibilities</li> <li>• Record keeping duties</li> <li>• Operational factors relating to the business (provision of professional services, products)</li> </ul>
Underpinning Skills	<p>Demonstrate skills of:</p> <ul style="list-style-type: none"> <li>• Literacy skills to interpret legal requirements, company policies and procedures and immediate, day-to-day demands</li> <li>• Marketing skills</li> <li>• Business planning skills</li> <li>• Entrepreneurial skills</li> <li>• Problem-solving skills</li> <li>• OHS skills</li> <li>• Time management skills</li> <li>• Belief in services and products offered by the business</li> <li>• Communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback</li> <li>• Technical and analytical skills to interpret business documents, reports and financial statements and projections</li> <li>• Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities</li> <li>• Problem solving skills to develop contingency plans</li> <li>• Using computers and software packages to record and manage data and to produce reports</li> <li>• Literacy skills to enable interpretation of business information, numeracy skills for data analysis to aid research</li> <li>• Research skills to identify a business opportunity and to conduct a feasibility study</li> <li>• Analytical skills to assess personal attributes and to identify business risks</li> <li>• Observation skills for identifying appropriate people, resources and to monitor work</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level II	
Unit Title	Standardize and Sustain 3S
Unit Code	<a href="#">EISTRO2 16 0313</a>
Unit Descriptor	This unit of competence covers the knowledge, skills and attitudes required by worker to standardize and sustain 3S to his/her workplace. It covers responsibility for the day-to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	<p>1.1 Work instructions are used to determine job requirements, including method, material and equipment.</p> <p>1.2 Job specifications are read and interpreted following working manual.</p> <p>1.3 <b>OHS requirements</b>, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.</p> <p>1.4 <b>Safety equipment and tools</b> are identified and checked for safe and effective operation.</p> <p>1.5 <b>Tools and equipment</b> are prepared and used to implement 3S.</p>
2. Standardize 3S.	<p>2.1 Plan is prepared and used to standardize 3S activities.</p> <p>2.2 <b>Tools and techniques</b> to standardize 3S are prepared and implemented based on <b>relevant procedures</b>.</p> <p>2.3 Checklists are followed for standardize activities and <b>reported to relevant personnel</b>.</p> <p>2.4 The workplace is kept to the specified standard.</p> <p>2.5 Problems are avoided by standardizing activities.</p>
3. Sustain 3S.	<p>3.1 Plan is prepared and followed to standardize 3S activities.</p> <p>3.2 <b>Tools and techniques</b> to sustain 3S are discussed, prepared and implemented based on relevant procedures.</p> <p>3.3 Workplace is inspected regularly for compliance to specified standard and sustainability of 3S techniques.</p>

	<p>3.4 Workplace is cleaned up after completion of job and before commencing next job or end of shift.</p> <p>3.5 Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken.</p> <p>3.6 Improvements are recommended to lift the level of compliance in the workplace.</p> <p>3.7 Checklists are followed to sustain activities and reported to relevant personnel.</p> <p>3.8 Problems are avoided by sustaining activities.</p>
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Variable	Range
OHS requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances.</li> <li>• Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices.</li> <li>• Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization.</li> <li>• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.</li> </ul>
Safety equipment and tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• dust masks / goggles</li> <li>• glove</li> <li>• working cloth</li> <li>• first aid</li> <li>• safety shoes</li> </ul>
Tools and equipment	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• paint</li> <li>• hook</li> <li>• sticker</li> <li>• signboard</li> </ul>

	<ul style="list-style-type: none"> <li>• nails</li> <li>• shelves</li> <li>• chip wood</li> <li>• sponge</li> <li>• broom</li> <li>• pencil</li> <li>• shadow board/ tools board</li> </ul>
Tools and techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• 5S Job Cycle Charts</li> <li>• Visual 5S</li> <li>• The Five Minute 5S</li> <li>• Standardization level checklist</li> <li>• 5S checklist</li> <li>• The five Whys and one How approach(5W1H)</li> <li>• Suspension</li> <li>• Incorporation</li> <li>• Use Elimination</li> </ul>
Relevant procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Assign 3S responsibilities</li> <li>• Integrate 3S duties into regular work duties</li> <li>• Check on 3S maintenance level</li> <li>• OHS measures such as signage, symbols / coding and labeling of workplace and equipment</li> <li>• Creating conditions to sustain your plans</li> <li>• Roles in implementation</li> </ul>
Reporting	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• verbal responses</li> <li>• data entry into enterprise database</li> <li>• brief written reports using enterprise report formats</li> </ul>
Relevant personnel	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• supervisors, managers and quality managers</li> <li>• administrative, laboratory and production personnel</li> <li>• internal/external contractors, customers and suppliers</li> </ul>
Tools and techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• 5S slogans</li> <li>• 5S posters</li> <li>• 5S photo exhibits and storyboards</li> <li>• 5S newsletter</li> <li>• 5S maps</li> <li>• 5S pocket manuals</li> <li>• 5S department/benchmarking tours</li> </ul>

	<ul style="list-style-type: none"> <li>• 5S months</li> <li>• 5S audit</li> <li>• Awarding system</li> <li>• Big cleaning day</li> <li>• Patrolling system may include: <ul style="list-style-type: none"> <li>➢ Top management Patrol</li> <li>➢ 5S Committee members and Promotion office Patrol</li> <li>➢ Mutual patrol</li> <li>➢ Self-patrol</li> <li>➢ Checklist patrol</li> <li>➢ Camera patrol</li> </ul> </li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• Discuss the relationship between Kaizen elements.</li> <li>• Standardize and sustain 3S activities by applying appropriate tools and techniques.</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Elements of Kaizen</li> <li>• Ways to improve Kaizen elements</li> <li>• Benefits of improving kaizen elements</li> <li>• Relationship between Kaizen elements</li> <li>• The fourth pillar of 5S</li> <li>• Benefits of standardizing and sustaining 3S</li> <li>• Procedures for standardizing and sustaining 3S activities</li> <li>• Tools and techniques to sustain 3S</li> <li>• Relevant Occupational Health and Safety (OHS) and environment requirements</li> <li>• Plan and report</li> <li>• Method of communication</li> </ul>
Underpinning Skills	<p>Demonstrates skills of:</p> <ul style="list-style-type: none"> <li>• improving Kaizen elements by applying 5S</li> <li>• standardizing and sustaining procedures and techniques to avoid problems</li> <li>• technical drawing</li> <li>• procedures to standardizing 3S activities</li> <li>• analyzing and preparing shop layout of the workplace</li> <li>• standardizing and sustaining checklists</li> <li>• preparing and implementing tools and techniques to sustain 3S</li> <li>• working with others</li> <li>• reading and interpreting documents</li> </ul>

	<ul style="list-style-type: none"> <li>• observing situations</li> <li>• solving problems by applying 5S</li> <li>• communication skills</li> <li>• preparing labels, slogans, etc.</li> <li>• gathering evidence by using different means</li> <li>• using Kaizen board properly in accordance the procedure</li> <li>• reporting activities and results using report formats</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

## NTQF Level III

Occupational Standard: Train Operation Level III	
Unit Title	Prepare for Train Operation
Unit Code	<a href="#">EIS TRO3 01 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to prepare for train operation in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes preparing for and implementing the prescribed pre-departure checks and confirming the required train documentation.

Elements	Performance Criteria
1. Prepare for pre-departure checks	<p>1.1 Required checks and relevant procedures and standards are identified</p> <p>1.2 Purpose of the journey and activities to be undertaken are identified in accordance to the <b>regulations/legislation</b></p> <p>1.3 Constraints and special instructions that May apply for the journey are identified</p> <p>1.4 Documentation is read to identify and confirm consist, attach/detach <b>information</b>, loading information and characteristics of the train</p> <p>1.5 Where necessary, compliance with relevant regulatory requirements are identified</p> <p>1.6 <b>Safety and protective equipment</b> is selected and used conforming to industry and OHS standards</p>
2. Implement pre-departure checks	<p>2.1 <b>Motive power</b> control systems are set up and checked in accordance with <b>workplace procedures</b> and policies</p> <p>2.2 <b>Train</b> , or relevant portion of the train, is checked to ensure that <b>rolling stock</b> is coupled and sequenced correctly</p> <p>2.3 Train <b>operation</b> braking systems are applied and released to ensure they are operating effectively</p> <p>2.4 <b>Visual inspection</b> is conducted to identify any obvious <b>faults or defects</b> that would prevent safe transit</p> <p>2.5 Corrective action is taken to rectify faults and ensure minimum delay to planned running schedule</p> <p>2.6 Relevant OHS requirements are followed to prevent injury and damage</p>
3. Confirm train is OK to proceed	<p>3.1 <b>Relevant personnel</b> are promptly advised of the result of completed checks</p> <p>3.2 Authority to proceed relevant to the operational situation is</p>



	<p>obtained and followed</p> <p>3.3 Effective <b>communication</b> procedures and protocols are used with others when preparing a train for operation</p>
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Variable	Range
Regulations and Legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>relevant state/territory OHS legislation</li> <li>relevant state/territory environmental protection legislation</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>the Code of Practice for the Defined Interstate Rail Network in situations where operations are carried out on that network</li> <li>workplace procedures and instructions and job specification</li> <li>induction and training materials</li> <li>train consists</li> <li>train notices</li> <li>out-of-gauge notices</li> <li>dangerous goods manifests</li> <li>brake certification</li> <li>load/passenger manifests</li> <li>OHS and environmental protection legislation, codes of practice, policies and procedures</li> <li>maintenance specifications</li> <li>local instructions</li> <li>two-way radio operation procedures</li> <li>emergency procedure manuals</li> <li>manufacturers specifications</li> <li>equipment operations manuals</li> <li>conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Safety and protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>high visibility clothing</li> <li>gloves</li> <li>sunscreen and sunglasses</li> <li>safety glasses</li> <li>insect repellent</li> <li>safety headwear and footwear</li> <li>portable radios</li> <li>mobile/satellite phones</li> <li>hand lamps</li> <li>flags</li> <li>safety devices</li> </ul>

	<ul style="list-style-type: none"> <li>• hearing protection</li> </ul>
Motive power units May include all motive power units in service within Ethiopian rail systems and	<p>May include:</p> <ul style="list-style-type: none"> <li>• diesel locomotives</li> <li>• electric locomotives</li> <li>• railcars</li> <li>• multiple units (including electric multiple units)</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Train consists	<p>May include:</p> <ul style="list-style-type: none"> <li>• correct coupling and sequencing of train requires that couplings are locked in place and flexible connections between rolling stock are made</li> <li>• positioning and set-up of remote control equipment is correct</li> </ul>
Rolling stock	<p>May include:</p> <ul style="list-style-type: none"> <li>• all rolling stock in service with Ethiopian rail systems including both passenger cars and freight rolling stock</li> </ul>
Operations	<p>conducted:</p> <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all relevant weather conditions</li> </ul>
Visual inspections to identify obvious faults/defects	<p>May Include checking:</p> <ul style="list-style-type: none"> <li>• wheels and braking equipment for signs of wear or damage</li> <li>• flexible connections and fittings for signs of wear or damage</li> <li>• couplings for signs of wear or damage</li> <li>• fuel, oil, water and coolant levels</li> <li>• air system for leaks</li> <li>• electrical equipment</li> <li>• pantographs</li> <li>• emergency and safety equipment such as vigilance control and dead man relays</li> </ul>
Relevant personnel	<p>can include:</p> <ul style="list-style-type: none"> <li>• maintenance personnel</li> <li>• yard, station and other operational personnel</li> <li>• train controllers and signallers</li> <li>• train crews</li> <li>• depot coordinators</li> <li>• hand-over crew</li> </ul>
Communication methods	<p>May Include:</p> <ul style="list-style-type: none"> <li>• written, including signed communications, lists and forms</li> <li>• verbal</li> <li>• line-of-sight signals</li> <li>• radio</li> <li>• fixed and mobile telephones</li> </ul>

<b>Evidence Guide</b>	
<b>Critical Aspects of Competence</b>	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul> </li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• carrying out all pre-departure checks correctly</li> <li>• identifying typical faults or defects for the type of rolling stock being operated</li> <li>• applying appropriate methods to overcome identified faults or defects</li> </ul> </li> </ul>
<b>Underpinning Knowledge and Attitudes</b>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Procedures for preparing a train for operation</li> <li>• Set-up procedures for equipment used in the control of trains</li> <li>• Pre-departure train testing procedures</li> <li>• Train preparation documentation procedures</li> <li>• Communication procedures and protocols</li> <li>• Maintenance and servicing procedures</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Train coupling equipment and methods</li> <li>• Safe working systems and requirements</li> <li>• Safe working procedures in electrified areas</li> <li>• Train characteristics and specifications</li> <li>• Relevant sections of the ADG Code and other dangerous goods regulations (for freight operations only)</li> <li>• Contingency management processes for unexpected events</li> </ul>
<b>Underpinning Skills</b>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when preparing a train for operation</li> <li>• Read and interpret instructions, procedures, information and signs relevant to preparing a train for operation</li> <li>• Interpret and follow operational instructions and prioritize work</li> </ul>

	<ul style="list-style-type: none"> <li>• Complete documentation related to the preparation of a train for operation</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when preparing a train for operation</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions when preparing a train for operation in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unexpected events when preparing a train for operation</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Apply fatigue management knowledge and techniques</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Set up and check train control systems</li> <li>• Test air continuity and braking systems</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level III	
Unit Title	Stable a Motive Power Unit
Unit Code	<a href="#">EIS TRO3 02 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to stable a motive power unit in accordance with relevant workplace practices, rail regulations and codes of practice. It includes determining the required stabling location, shunting and securing the train, stabling and securing the motive power unit, carrying out all required post-operational checks and completing post-operational paperwork.

Elements	Performance Criteria
1. Determine stabling location	<p>1.1 Contact is made with appropriate personnel to determine planned location for stabling the train and/or motive power unit</p> <p>1.2 Location is identified and confirmed with appropriate personnel</p> <p>1.3 Directions of <b>relevant personnel</b> are interpreted and followed</p> <p>1.4 <b>Personal protective equipment</b> is used conforming to industry and OHS standards</p>
2. Stable motive power unit	<p>2.1 Train is shunted and secured to prevent roll away in accordance with directions, workplace procedures and relevant rail regulations</p> <p>2.2 <b>Motive power equipment</b> and unit is stabled as directed</p> <p>2.3 Motive power unit is secured to prevent roll away in accordance with directions, workplace procedures and relevant rail regulations</p> <p>2.4 <b>Motive power unit</b> is shut down as per manufacturer's instructions and workplace procedures</p> <p>2.5 Cab is secured as per <b>workplace procedures</b></p> <p>2.6 If required, derailer's are set in place as per workplace procedures and rail <b>regulations</b></p>
3. Carry out post-operational checks	<p>3.1 If appropriate, fuel and fluid levels are checked and any required action is taken to replenish them</p> <p>3.2 <b>Inspection</b> is made of <b>motive power unit</b> as per workplace procedures</p> <p>3.3 Any <b>identified faults and defects</b> are fixed and/or reported and recorded as per workplace procedures</p> <p>3.4 Faulty and defective equipment that presents a safety risk in the <b>operation</b> is isolated and tagged as per workplace</p>

	<p>procedures and rail regulations for <b>risk minimization</b></p> <p>3.5 Outcomes of <b>post-operational checks</b> are recorded as per workplace procedures</p> <p>3.6 All equipment is returned and stowed as per workplace requirements</p>
4. Complete post-operational paperwork	4.1 All required safe working <b>documentation</b> is completed as per workplace procedures and rail <b>regulations</b>

Variable	Range
Relevant personnel	<p>May include:</p> <ul style="list-style-type: none"> <li>• train crew</li> <li>• train controllers and signallers</li> <li>• rostering supervisors and staff</li> <li>• other train drivers and crews</li> <li>• depot coordinators</li> <li>• yard masters, supervisors and other operational personnel</li> <li>• service delivery supervisors</li> <li>• station yard staff</li> <li>• maintenance and cleaning personnel</li> <li>• immediate internal or external customers</li> </ul>
Safety and personal protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• sunscreen and sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear and footwear</li> <li>• two-way radios</li> <li>• mobile/satellite phones</li> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• audible indicators</li> <li>• fire extinguishers</li> <li>• high visibility clothing</li> <li>• hearing protection</li> </ul>
Motive power equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• auxiliary systems</li> <li>• automatic control systems</li> <li>• braking systems</li> <li>• drive systems</li> <li>• instrumentation</li> <li>• manual controls</li> <li>• remote train and signal control systems</li> </ul>

	<ul style="list-style-type: none"> <li>• communication systems</li> <li>• warning equipment</li> <li>• power source</li> <li>• vigilance systems</li> <li>• traction systems</li> <li>• head and marker lights</li> </ul>
Motive power units May include all motive power units in service within Ethiopian rail systems	<p>May include:</p> <ul style="list-style-type: none"> <li>• diesel locomotives</li> <li>• electric locomotives</li> <li>• railcars</li> <li>• multiple units (including electric multiple units)</li> </ul>
workplace procedures	<p>May be called:</p> <ul style="list-style-type: none"> <li>• standard operating procedures</li> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Applicable legislation, regulations and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant Ethiopian Standards and related requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
Inspection of a motive power unit	<p>May include:</p> <ul style="list-style-type: none"> <li>• lights</li> <li>• hoses</li> <li>• couplings</li> <li>• destination boards</li> <li>• doors and door locks</li> <li>• springs</li> <li>• brake equipment</li> <li>• wheels</li> <li>• seals</li> <li>• sand and fuel (regional diesel train services)</li> <li>• pantographs</li> <li>• electrical cables</li> <li>• glass windows and doors</li> <li>• compressor oil levels</li> <li>• automatic power cut out sensors</li> <li>• audible faults (e.g. hiss of escaping air)</li> <li>• visible faults (e.g. oil leaks, tears and cracks)</li> </ul>
Action taken upon the identification of faults, defects or deficiencies	<p>May include:</p> <ul style="list-style-type: none"> <li>• reporting the problem and carrying out repairs (depending on the level and extent of work required)</li> <li>• isolating and tagging the faulty equipment and advising appropriate personnel of the fault and need for repair or</li> </ul>

	replacement
Operations	May be conducted: <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all weather conditions</li> </ul>
Risk minimisation	May require differentiating between faults, defects and deficiencies that: <ul style="list-style-type: none"> <li>• do not present a hazard and could be attended to under running maintenance or in a normal maintenance schedule</li> <li>• present a potential hazard and need to be attended to under running maintenance or at the next most practical opportunity</li> <li>• present an immediate hazard and require immediate attention</li> </ul>
Post operation checks	May include: <ul style="list-style-type: none"> <li>• lubrication system</li> <li>• checking for fluid leaks</li> <li>• brake testing</li> <li>• checking of fluid levels</li> </ul>
Information and documents	May include: <ul style="list-style-type: none"> <li>• motive power unit operational records and user log books</li> <li>• maintenance notices, records and requests</li> <li>• preparation sheets certificates and service dockets</li> <li>• train running sheets</li> <li>• time sheets</li> <li>• safe working documentation</li> <li>• automatic train protection parameters</li> <li>• operational instructions, policies and procedures, including: those related to preventing motive power units from moving; track speed, length and load limitations; monitoring and complying with signals; and procedures for operating in accordance with specific track conditions</li> <li>• emergency procedures manual</li> </ul>

### Evidence Guide

Critical Aspects of Competence	Demonstrates skills and knowledge in: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• identifying a number of different locations where motive power units May be stabled (including in emergencies)</li> <li>• identifying typical faults or defects that May be identified during post operational-checks</li> <li>• carrying out post-operational checks in accordance with workplace procedures on a range of motive power units</li> </ul> </li> </ul>
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<p>Underpinning Knowledge and Attitudes</p>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Motive power unit controls, instruments and indicators and their purpose, location and use</li> <li>• Procedures for stabling a motive power unit</li> <li>• Braking and safety system procedures</li> <li>• Operating controls to start, accelerate, decelerate and stop a motive power unit</li> <li>• Speed and load limits compliance requirements</li> <li>• Procedures for managing hazardous situations when operating and stabling a motive power unit</li> <li>• Procedures for operating and shutting down auxiliary systems</li> <li>• Procedure for completing relevant documentation when stabling a motive power unit</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Procedures for minor maintenance, cleaning, lubricating and servicing of motive power unit</li> <li>• Procedures for identifying equipment defects and assessing for appropriate action</li> <li>• Motive power unit knowledge May include: monitoring devices, braking and power equipment, ancillary systems, and signalling systems</li> <li>• Local procedures and operating requirements</li> <li>• Typical defects that can occur on a motive power unit and related action that should be taken</li> <li>• Procedures for securing a motive power unit to prevent roll away</li> </ul> <p>Procedures for operating electronic communications equipment with required protocol</p>
<p>Underpinning Skills</p>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when stabling a motive power unit</li> <li>• Read and interpret instructions, procedures and information relevant to the stabling of a motive power unit</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the stabling of a motive power unit</li> <li>• Operate electronic communications equipment to required</li> </ul>

	<p>protocol</p> <ul style="list-style-type: none"> <li>• Work collaboratively with others as part of a train crew</li> <li>• Identify and assess motive power unit defects and deficiencies and take appropriate action to report, isolate, repair or replace any identified defective equipment as per workplace procedures</li> <li>• Implement contingency plans for unplanned events</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist when stabling a motive power unit</li> <li>• Recognise problems that May arise when stabling a motive power unit and take appropriate action</li> <li>• Check and replenish fuel and fluids and carry out lubrication requirements on a motive power unit (if appropriate)</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Adapt to differences in motive power units and associated equipment and procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Conduct a visual inspection of a motive power unit</li> <li>• Document outcomes of an inspection of a motive power unit</li> </ul> <p>Shut down a motive power unit after service</p>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work p lace or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Stable Electric Passenger Train
Unit Code	<a href="#">EIS TRO3 03 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to stable an electric passenger train in accordance with safe working and regulatory requirements and workplace procedures. This includes conducting pre-stabling checks, stabling an electric passenger train and conducting post-stabling checks in accordance with workplace requirements.

Elements	Performance Criteria
1. Conduct pre-stabling checks	<p>1.1 Train stabling requirements are confirmed through workplace documents and/or <b>relevant personnel</b></p> <p>1.2 Location safety requirements are identified and followed according to <b>workplace procedures</b></p>
2. Stable electric passenger train	<p>2.1 Train is shunted and/or stabled in accordance with workplace instructions and <b>operations</b></p> <p>2.2 If required, <b>communication protocols and equipments</b> are established and performed according to workplace requirements</p> <p>2.3 On arrival at <b>stabling location</b>, the train is secured and the brakes cut out/isolated</p> <p>2.4 Visual inspection of the train is conducted in accordance with workplace requirements</p>
3. Conduct post-stabling checks	<p>3.1 Post-operational checks of the train are conducted in accordance with workplace procedures</p> <p>3.2 If required, problems and defects are identified and reported/rectified in accordance with workplace procedures, <b>regulation and legislation</b> and manufacturer's instructions</p> <p>3.3 If required, <b>safety devices</b> are activated or put in position to ensure the safety of personnel and equipment</p> <p>3.4 If required, reporting/<b>documentation</b> is completed in accordance with workplace procedures</p>

Variable	Range			
Relevant personnel	<p>May include:</p> <ul style="list-style-type: none"> <li>• train controllers</li> <li>• train examiners</li> <li>• maintenance personnel</li> </ul>			
Page 90 of 254	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Ministry of Education Copyright</td> <td style="width: 50%; text-align: center;">Train Operation Ethiopian Occupational Standard</td> <td style="width: 25%; text-align: right;">Version 1 March 2013</td> </tr> </table>	Ministry of Education Copyright	Train Operation Ethiopian Occupational Standard	Version 1 March 2013
Ministry of Education Copyright	Train Operation Ethiopian Occupational Standard	Version 1 March 2013		

	<ul style="list-style-type: none"> <li>• those providing operational assistance</li> <li>• train crews</li> <li>• cleaners</li> <li>• contractors</li> </ul>
Workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Operations	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all weather conditions</li> </ul>
Communication protocols	<p>May include but are not limited to:</p> <ul style="list-style-type: none"> <li>• general safety</li> <li>• emergency messages</li> <li>• sending and receiving messages</li> <li>• identification</li> <li>• standard radio terms</li> <li>• phonetic alphabet</li> <li>• spoken figures</li> </ul>
Communications equipment	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• hand-held or portable radio equipment</li> <li>• fixed radio equipment</li> <li>• mobile phones</li> </ul>
Stabling locations and characteristics	<p>May include:</p> <ul style="list-style-type: none"> <li>• yards/depots</li> <li>• sidings</li> <li>• platforms</li> <li>• workshops</li> </ul>
Applicable regulations, legislation and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant state/territory codes of practice and safe working system requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
Safety devices	<p>May include:</p> <ul style="list-style-type: none"> <li>• hand/park brakes</li> <li>• chocks</li> <li>• derail</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• operational instructions, protocols, policies and procedures, including:</li> <li>• pre- and post-operation and terminus inspection procedures</li> <li>• procedures to prevent trains from moving unintentionally or against safe working rules</li> <li>• track speed, length and limitations</li> <li>• procedures for monitoring and complying with signals within yards or sidings</li> </ul>

	<ul style="list-style-type: none"> <li>• train log or record book</li> <li>• train running sheets</li> <li>• procedures/instructions for dealing with emergencies or abnormal situations</li> <li>• specified operating limits for trains</li> <li>• local instructions</li> <li>• communication equipment procedures</li> <li>• equipment operation manuals and maintenance specifications</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
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<b>Evidence Guide</b>	
<b>Critical Aspects of Competence</b>	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• carrying out pre-stabling checks correctly</li> <li>• stabling in a number of locations including sidings and depots/yards</li> </ul> </li> </ul>
<b>Underpinning Knowledge and Attitudes</b>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant safety, OHS and environmental procedures and regulations</li> <li>• Operational instructions including shut-down procedures</li> <li>• Procedures for operating electronic communications equipment with required protocol</li> <li>• Procedures for pre- and post-stabling operational checks</li> <li>• Procedures for carrying out terminus checks</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Train controls, instruments and indicators and their purpose, location and use</li> </ul> <p>Yard or siding information including layout, entry and exit requirements and emergency procedures</p>
<b>Underpinning Skills</b>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when stabling an electric passenger train</li> <li>• Read and interpret instructions, procedures, information and signs relevant to work activities</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to stabling an electric passenger train, if required</li> </ul>

	<ul style="list-style-type: none"> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when stabling an electric passenger train</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions when stabling an electric passenger train in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unexpected events when stabling an electric passenger train</li> <li>• Respond appropriately to abnormal situations, safety incidents and emergencies</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor and anticipate operational hazards and take appropriate action</li> <li>• Modify activities to cater for variations in workplace contexts and environment</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul> <p>Carry out required pre-stabling, stabling and post-stabling checks of train</p>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• on the job or in a simulated workplace environment</li> </ul>

Occupational Standard: Train Operation Level III	
Unit Title	Estimate/Calculate Mass, Area and Quantify Dimensions
Unit Code	<a href="#">EIS TRO3 14 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to estimate and calculate mass and area and quantifies dimensions of loads as part of work functions in the transport, stevedoring, warehousing, and/or storage sectors. This includes estimating loads to be transported or placed in storage, identifying mass, area and volume limitations of available transport/storage systems and carrying out calculations required to organize load(s) to match identified transport/storage limitations.

Elements	Performance Criteria
1. Estimate loads for transport or storage	1.1 Order forms/ <b>work</b> orders are read and requirements are noted 1.2 Shape, balance characteristics, dimensions and mass of the load(s) are identified 1.3 Area/volume required for storage is estimated 1.4 Weights and volumes are totaled to <b>calculate load</b> requirements of transport or storage system
2. Estimate load limits of transport and/or storage	2.1 Allowable load limits for storage and/or transport systems are identified in accordance with <b>workplace</b> procedures 2.2 Capacity of transport and storage systems in terms of mass, area and volume are calculated
3. Organize load	3.1 Load(s) is restricted to allowable range(s) 3.2 Load(s) is spread to ensure safe weighting on pallets, trucks, platforms or other storage or transport systems 3.3 Appropriate workplace documentation is completed

Variable	Range
Work	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> <li>• limited or restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> </ul>
Customers	May be: <ul style="list-style-type: none"> <li>• internal or external</li> </ul>

Estimating/calcul ation tasks	May include: <ul style="list-style-type: none"> <li>• estimating loads to be transported or placed in storage</li> <li>• identifying mass, area and volume limitations of available transport/storage systems</li> <li>• carrying out calculations required to organise load(s) to match identified transport/storage limitations</li> <li>• calculations and estimations of weights and dimensions of cargo and containers to be shifted, stored or lifted</li> </ul>
Calculations May include mathematical operations of addition, subtraction, multiplication and division and	May be carried out: <ul style="list-style-type: none"> <li>• manually</li> <li>• with the aid of a calculator</li> <li>• with the aid of a computer</li> <li>• using appropriate tables and/or charts</li> </ul>
Workplaces	May comprise: <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
Consultative processes	May involve: <ul style="list-style-type: none"> <li>• other employees and supervisors</li> <li>• suppliers, customers and clients</li> <li>• relevant authorities and institutions</li> <li>• management and union representatives</li> <li>• industrial relations and OHS specialists</li> <li>• other maintenance, professional or technical staff</li> </ul>
Communication in the work area	May include: <ul style="list-style-type: none"> <li>• phone</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• radio</li> <li>• RF systems</li> <li>• oral, aural or signed communications</li> </ul>
Hazards in the work area	May include exposure to: <ul style="list-style-type: none"> <li>• chemicals</li> <li>• dangerous or hazardous substances</li> <li>• movements of equipment, goods and materials</li> </ul>
Depending on the type of organisation concerned and the local terminology used, workplace procedures	May include: <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information/docu ments	May include: <ul style="list-style-type: none"> <li>• workplace procedures and policies</li> </ul>



	<ul style="list-style-type: none"> <li>• operations manuals, job specifications and induction documentation</li> <li>• goods identification numbers and codes</li> <li>• manifests, picking slips, merchandise transfers, stock requisitions and bar codes, goods and container identification/serial number</li> <li>• Ethiopian and international codes of practice and regulations relevant to workplace activities including mass and loading regulations</li> <li>• Ethiopian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances</li> <li>• manufacturers specifications for equipment</li> <li>• supplier and/or client instructions</li> <li>• dangerous goods declarations and material safety data sheets (where applicable)</li> <li>• award, enterprise bargaining agreement, other industrial arrangements</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant codes and regulations relevant to workplace activities</li> <li>• Ethiopian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances</li> <li>• licence, patent or copyright arrangements</li> <li>• water and road use and licence arrangements</li> <li>• export/import/quarantine/bond requirements</li> <li>• marine orders</li> <li>• relevant state/territory OHS and environmental protection legislation</li> <li>• workplace relations regulations</li> <li>• workers compensation regulations</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Ethiopian and international codes and regulations relevant to workplace activities</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the estimation and/or</li> </ul>

	<p>calculation of mass, area and volumes of loads and transport and storage facilities including the quantification of dimensions</p> <ul style="list-style-type: none"> <li>• Basic mathematical operations required when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities including addition, subtraction, multiplication and division</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the transport and/or storage of goods and stock</li> <li>• Problems that May occur when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities and appropriate action that can be taken to resolve the problems</li> </ul> <p>Documentation requirements for the workplace activities concerned</p>		
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when estimating and/or calculating mass, area and volumes of loads and transport and storage facilities</li> <li>• Read and interpret instructions, procedures, information and labels relevant to the estimation and/or calculation of mass, area and volumes of loads and transport and storage facilities</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to work activities</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May arise when estimating and/or calculating mass, area and volumes of loads and transport and storage facilities in accordance with workplace procedures</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Identify, select and use relevant calculators, computing and office equipment when estimating and/or calculating mass, area and volumes of loads and transport/storage facilities</li> <li>• Operate and adapt to differences in equipment in</li> </ul>		
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	<p>accordance with standard operating procedures</p> <p>Select and use required personal protective equipment conforming to industry and OHS standards</p>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be accessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Assist with Train Operations
Unit Code	<a href="#">EIS TRO3 04 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to assist with train operations as a driver assistant or second-person, in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes assisting with preparations for train operation, assisting with the operation of the train, assisting with loading and unloading operations, and handing over or stabling the train in accordance with workplace requirements.

Elements	Performance Criteria
1. Assist with preparing for train operation	<p>1.1 Planning documentation is accessed and interpreted to determine the purpose of the <b>operation</b>, constraints, loading <b>information</b> and characteristics and is confirmed with the driver</p> <p>1.2 <b>Visual inspections</b> of equipment is carried out and identified faults or defects are appropriately reported in accordance with workplace procedures and manufacturers specifications</p> <p>1.3 Assistance is provided with the pre-operational checking and <b>equipment testing</b> is in accordance with workplace policies and procedures</p> <p>1.4 <b>Work</b> is done systematically with required attention to detail without injury to self or others, or damage to goods or equipment</p>
2. Assist with train operation	<p>2.1 Motive power unit is monitored in conjunction with the driver, in accordance with <b>workplace procedures</b></p> <p>2.2 Guidance is provided to the driver while stopping and starting to ensure safety of personnel and equipment</p> <p>2.3 Train running schedules are monitored and recorded to assist with 'on-time' running</p> <p>2.4 Performance of equipment and rolling stock is monitored en route to identify faults or defects and appropriate action is taken as required in accordance with workplace procedures</p> <p>2.5 Work is performed collaboratively with others when assisting with train operations</p> <p>2.6 Security of loading and all other aspects of the train are monitored en route and any abnormalities are dealt with in accordance with workplace procedures <b>regulation and</b></p>

	<p><b>legislation</b></p> <p>2.7 Signals and track/road is monitored en route in accordance with workplace procedures</p>
3. Stable or hand over train	<p>3.1 Appropriate assistance is provided when train is stabled in accordance with safe working system requirements, operational instructions and <b>stabling procedures</b></p> <p>3.2 <b>Safety devices</b> are activated or put in position in accordance with operational instructions and workplace procedures to ensure the safety of personnel and equipment</p> <p>3.3 Prior to hand-over, documentation relevant to the train and activities undertaken en route is updated, provided to relief crew and/or forwarded to <b>relevant personnel</b> in accordance with workplace policies and procedures</p>

Variable	Range
Operations	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all weather conditions</li> </ul>
Information/ documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace procedures and job specification</li> <li>• motive power unit log book</li> <li>• maintenance notices and records</li> <li>• train running sheets</li> <li>• passenger train timetables</li> <li>• requests</li> <li>• train consist forms</li> <li>• loading information</li> <li>• train register books</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Visual inspections	<p>Include:</p> <ul style="list-style-type: none"> <li>• wheels and braking equipment for signs of wear or damage</li> <li>• flexible connections and fittings for signs of wear or damage</li> <li>• couplings for signs of wear or damage</li> <li>• fuel, oil and water</li> <li>• air leakage</li> <li>• motive power unit equipment end of train monitoring device</li> <li>• rolling stock for defects</li> </ul>
Equipment tests	<p>May include:</p> <ul style="list-style-type: none"> <li>• brake testing</li> <li>• air continuity test</li> <li>• ancillary equipment</li> <li>• stretch tests</li> </ul>

Work	<p>May be conducted in:</p> <ul style="list-style-type: none"> <li>• exposed conditions</li> <li>• controlled or open environments</li> </ul>
Work	<p>May involve exposure to:</p> <ul style="list-style-type: none"> <li>• chemicals</li> <li>• dangerous or hazardous substances</li> <li>• movements of equipment, goods and vehicles</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Applicable regulations, legislation and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory regulations, codes of practice and safe working system requirements</li> <li>• relevant Ethiopian Standards</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
Stabling procedure	<p>Can include:</p> <ul style="list-style-type: none"> <li>• arranging for refuelling and servicing</li> <li>• securing motive power unit</li> <li>• securing train</li> </ul>
Safety devices:	<p>Can include</p> <ul style="list-style-type: none"> <li>• power, hand brakes and lock-out equipment to prevent motive power unit/train from moving</li> </ul>
Relevant personnel who May be consulted	<p>May include:</p> <ul style="list-style-type: none"> <li>• train controllers</li> <li>• maintenance personnel</li> <li>• yard and other operational personnel</li> <li>• train examiners</li> <li>• other members of train crew</li> <li>• signal controllers</li> <li>• other train crews</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations:</li> <li>• assisting with the preparation of a number of trains prior to</li> </ul>
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	<p>operation</p> <ul style="list-style-type: none"> <li>• identifying possible faults and defects that could occur and appropriate responses</li> <li>• correctly monitoring the operation of different train types in normal operation</li> <li>• conducting hand over and stabling activities correctly</li> </ul>		
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations including codes of practice for manual handling</li> <li>• Procedures for assisting a driver in monitoring train operations and performance</li> <li>• Procedures for fixed and hand signalling and voice communication</li> <li>• Protocols for use of electronic communications equipment</li> <li>• Procedures for completing required documentation</li> <li>• Procedures for coupling/uncoupling motive power units and rolling stock</li> <li>• Train characteristics</li> <li>• Track or road characteristics</li> <li>• Route knowledge</li> <li>• Motive power unit and rolling stock systems</li> <li>• Safe working systems and requirements</li> <li>• Documentation required during and following train operations</li> <li>• Procedures to be followed in the event of emergencies</li> <li>• Procedures for identifying equipment defects and assessing for appropriate action</li> <li>• Local procedures and operating requirements</li> <li>• Problems that can occur when assisting with train operations and action that should be taken</li> </ul>		
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when assisting with train operations</li> <li>• Read and interpret instructions, procedures and information relevant to train operations</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to train operations</li> <li>• Document train journey and incidents</li> <li>• Operate electronic communication equipment to required protocol</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Work collaboratively with others when assisting with train operations</li> <li>• Promptly report and/or rectify any problems, faults or malfunctions that May be identified when assisting with train operations in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May arise when assisting with train operations</li> <li>• Monitor and anticipate operational hazards and take appropriate action</li> <li>• Monitor journey schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Apply fatigue management knowledge and techniques</li> <li>• Assist driver in monitoring train performance and, if applicable, security of load</li> <li>• Select and use relevant equipment and materials when assisting in train operations</li> <li>• Assist in stabling and securing train</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting



Occupational Standard: Train Operation Level III	
Unit Title	Set Up and Shut Down On-Train Remote Control System
Unit Code	<a href="#">EIS TRO3 05 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to set up and shut down an on-train remote control system in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes setting up the remote control system, setting up the lead control system, and shutting down the remote control equipment.

Elements	Performance Criteria
1. Set up remote control system	1.1 <b>Remote control</b> system components are set up in accordance with operational plans and manufacturer's instructions 1.2 Remote <b>motive power units</b> are placed in required operating mode 1.3 Communication code is entered and air and electrical systems are activated 1.4 Brake and traction systems are tested using approved personnel to ensure correct <b>operation</b>
2. Set up lead control system	2.1 Cab console is checked, electrical systems are activated and the system self-test is confirmed 2.2 Communication code is entered and confirmation obtained that system has entered link mode 2.3 Full control is obtained and brake tests are conducted, using lead control equipment, to ensure correct braking is operational 2.4 Procedures to establish total control are repeated where necessary 2.5 Train is moved using the full range of tests to ensure operational safety and control 2.6 <b>Personal protective equipment</b> is used while performing the work in accordance with the work place procedure
3. Shut down remote control equipment	3.1 Shut-down procedures of lead and <b>on-train remote control</b> equipment are followed to ensure train security and de-activation of the system 3.2 Equipment indicators or functions are operated to ensure the shut-down process is correct and complete 3.3 On-train remote control <b>information</b> including compatible coupling, braking and drive equipment, ancillary systems,

	and signalling systems is critical according to the OHS and the <b>regulation and legislation</b>
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Variable	Range
Remote control operation	May be used: <ul style="list-style-type: none"> <li>• within a yard for the purpose of marshalling</li> <li>• shunting or on running lines</li> <li>• on running lines</li> </ul>
Motive power units May include all motive power units in service within Ethiopian rail systems and	May include: <ul style="list-style-type: none"> <li>• diesel locomotives</li> <li>• electric locomotives</li> <li>• railcars</li> <li>• non-operational units</li> </ul>
Operations	Conducted: <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all relevant weather conditions</li> </ul>
Safety and protective equipment	May include: <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• gloves</li> <li>• sunscreen</li> <li>• sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear</li> <li>• safety footwear</li> <li>• portable radios/mobile phones</li> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• hearing protection</li> </ul>
On-train remote control equipment	May be: <ul style="list-style-type: none"> <li>• any mechanism and operating system to allow the control of one motive power unit which is part of a train from another unit which is part of the same train</li> </ul>
Information/docu ments	May include: <ul style="list-style-type: none"> <li>• workplace procedures and instructions and job specifications</li> <li>• induction and training materials</li> <li>• relevant log or record books</li> <li>• maintenance specifications, notices, records and requests</li> <li>• local instructions</li> <li>• equipment operation manuals</li> <li>• operational instructions, policies and procedures</li> <li>• emergency procedure manuals</li> </ul>

	<ul style="list-style-type: none"> <li>• two-way radio operation procedures</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> <li>• relevant Ethiopian Standard</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• setting up remote control system in a range of configurations and/or trains</li> <li>• conducting post set-up tests to ensure remote control system is operating correctly</li> <li>• shutting down remote control system correctly</li> </ul> </li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Controls, instruments and indicators of an on-train remote control unit and their purpose, location and use</li> <li>• Procedures for the operation of remote control units</li> <li>• Set-up and shut-down procedures</li> <li>• Braking and safety system procedures</li> <li>• Procedures for the control of motive power units</li> <li>• Procedures for managing hazardous situations involving on-train remote control systems</li> <li>• Procedures for identifying equipment defects in remote control units and assessing any identified defective units for appropriate action</li> </ul> <p>Critical on-train remote control information including compatible coupling, braking and drive equipment, ancillary systems, and signaling systems</p>

Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when setting up and shutting down an on-train remote control system</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the setting up and shutting down of an on-train remote control system</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the setting up and shutting down of an on-train remote control system</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when setting up and shutting down an on-train remote control system</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions when setting up and shutting down an on-train remote control system in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unexpected events</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Monitor performance of equipment</li> </ul> <p>Judge speeds and movements when operating unit over short distances</p>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Conduct Full Train Examination
Unit Code	<a href="#">EIS TRO3 06 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to conduct a full train examination in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes preparing for the examination of the train, preparing the train for examination, examining the rolling stock, examining the loads, and documenting and auctioning the examination results.

Elements	Performance Criteria
1. Prepare for examination	<p>1.1 Train consist and information on load detail is established for examination purposes</p> <p>1.2 <b>Location</b> for full train <b>examination</b> is confirmed and other relevant <b>personnel</b> notified of examination</p> <p>1.3 Customer defect notices/carded wagon information is established for examination purposes</p> <p>1.4 Materials and equipment required to conduct the full train examination are prepared</p> <p>1.5 OHS requirements applicable to the <b>items examined</b> are confirmed</p> <p>1.6 Other relevant train documentation is accessed and reviewed to establish key information on rolling stock required for examination</p>
2. Prepare train for examination	<p>2.1 Applicable safety device or system is used to ensure train is isolated or secured for examination</p> <p>2.2 Road is locked out using appropriate techniques to ensure safety during examination</p> <p>2.3 Flags, banners, signs and other relevant <b>safety and protective equipment</b> is positioned before and during examination to ensure safety is maintained</p>
3. Examine rolling stock	<p>3.1 Types of rolling stock and capacities are confirmed as appropriate for the safe transportation of passengers or freight</p> <p>3.2 Brake systems are checked and all brake tests are conducted and certificates issued as appropriate</p> <p>3.3 Structure of rolling stock and major components are checked and tested to ensure operational safety</p> <p>3.4 Rolling stock is carded and <b>information</b> is recorded within enterprise system</p>

	<p>3.5 Train irregularities are noted and <b>corrective action</b> initiated in accordance with operational requirements</p> <p>3.6 End-of-train monitor is attached and correct <b>operation</b> is confirmed</p> <p>3.7 OHS <b>legislation</b>, codes of practice, policies and procedures are observed during the examination to prevent injury and damage</p> <p>3.8 <b>Communication</b> is maintained with other personnel involved to ensure safe, efficient and complete examination</p>
4 Examine loads	<p>4.1 Load security is checked and confirmed to meet operational safety requirements</p> <p>4.2 Load contamination is identified and rectified in accordance with OHS and dangerous goods requirements</p> <p>4.3 Load dimensions are confirmed appropriate to wagon type and checked against documentation for accuracy</p>
5 Document and action examination results	<p>5.1 Required documentation is completed and forwarded for recording examination results and initiating any required corrective actions</p> <p>5.2 Other <b>relevant personnel</b> are informed of remedial or appropriate action required prior to resumption of train service</p>

Variable	Range
Locations for examinations	<p>May include:</p> <ul style="list-style-type: none"> <li>• heavy traffic</li> <li>• high volume city freight terminals</li> <li>• remote regional yard and siding locations</li> </ul>
Personnel involved in examination	<p>May include:</p> <ul style="list-style-type: none"> <li>• self only or self in conjunction with other personnel</li> </ul>
Items examined	<p>May include:</p> <ul style="list-style-type: none"> <li>• brake equipment</li> <li>• draw gear</li> <li>• superstructures</li> <li>• out-of-gauge conditions</li> <li>• wheels and axles</li> <li>• bearings</li> <li>• locking and securing devices</li> <li>• dangerous goods condition and separation</li> <li>• air and electrical connections</li> <li>• load condition (damage, leaks etc.)</li> <li>• load securing devices (chains, ropes, pins etc.)</li> <li>• steps, handrails and handbrakes</li> </ul>

	<ul style="list-style-type: none"> <li>• rolling stock sequence</li> <li>• Trailing items (ropes, hoses etc.)</li> <li>• bogies and brake rigging</li> </ul>
Safety and protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• gloves</li> <li>• sunscreen</li> <li>• sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear</li> <li>• safety footwear</li> <li>• portable radios</li> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• hearing protection</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• workplace procedures and instructions and job specification</li> <li>• induction and training materials</li> <li>• repair cards and books</li> <li>• inspection reports</li> <li>• consist forms</li> <li>• wagon cards</li> <li>• transport instructions</li> <li>• incident reports</li> <li>• safe working forms</li> <li>• out-of-gauge documents</li> <li>• load and weight records</li> <li>• dangerous goods manifest</li> <li>• drivers advice (train load)</li> <li>• mechanical condition advice forms</li> <li>• brake test certification</li> <li>• equipment operations manuals</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Corrective action	<p>May include:</p> <ul style="list-style-type: none"> <li>• notification of others who will deal with problem</li> <li>• detachment and replacement of defective rolling stock</li> </ul>
Operations conducted by day or night in:	<ul style="list-style-type: none"> <li>• the full range of weather conditions</li> <li>• the full range of light conditions</li> <li>• typical running temperatures of trains</li> </ul>
Applicable	<p>May include:</p>

regulations and legislation	<ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory fatigue management regulations</li> <li>• relevant state/territory environmental protection legislation</li> <li>• relevant Ethiopian Standards</li> <li>• ADG Code and regulations</li> </ul>
Communication methods	<p>May include:</p> <ul style="list-style-type: none"> <li>• written</li> <li>• verbal</li> <li>• line-of-sight signals</li> <li>• radio</li> </ul>
Train under examination	<p>May be:</p> <ul style="list-style-type: none"> <li>• loaded or unloaded</li> </ul>
Relevant personnel	<p>Can include:</p> <ul style="list-style-type: none"> <li>• train controllers</li> <li>• train examiners</li> <li>• maintenance personnel</li> <li>• train crews</li> <li>• yard and other operational personnel</li> <li>• those responsible for controlling signals</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> </ul> <p>other relevant aspects of the range statement</p>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations including codes of practice for manual handling</li> <li>• Workplace procedures for the conduct of a full train examination</li> <li>• Train movement documentation procedures</li> <li>• Communication protocols</li> <li>• Procedures to be followed in the event of an emergency</li> <li>• Standards and specifications for all items requiring examination during a train examination</li> </ul>



	<ul style="list-style-type: none"> <li>• Signals and signalling systems</li> <li>• Contingency management processes for unplanned events</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when conducting a full train examination</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the conduct of a full train examination</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to a full train examination</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work both individually and as part of a team when conducting a full train examination</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions identified during a full train examination in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unplanned events that May occur during a full train examination</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Assess rolling stock defects when conducting a full train examination</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Conduct Train Roll-by Inspection
Unit Code	<a href="#">EIS TRO3 09 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to conduct a train roll-by inspection in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes preparing to carry out a roll-by inspection of a moving train from the ground or on-train when crossing/passing trains, inspecting a moving train in accordance with workplace procedures, and reporting and/or actioning the inspection results.

Elements	Performance Criteria
1. Prepare for an on-ground or on-train roll-by inspection	<p>1.1 Documentation and other relevant reports are read to confirm inspection requirements</p> <p>1.2 Individual responsibilities required to complete the roll-by inspection are agreed, where necessary, with relevant persons</p> <p>1.3 <b>Location for examination</b> is taken for the roll-by inspection at the planned time to ensure complete observation using <b>safety</b> and <b>personal protective equipment</b></p> <p>1.4 Conditions are assessed and necessary actions are taken to ensure roll-by inspection is effective</p>
2. Conduct a roll-by inspection of a moving train	<p>2.1 Train identification and status is confirmed</p> <p>2.2 <b>Condition of rolling stock and load</b> are systematically observed as the train passes and specific faults are identified and noted</p> <p>2.3 <b>Communication</b> is maintained with relevant personnel to ensure safe, efficient and complete roll-by inspection</p> <p>2.4 Inspection is conducted in accordance with OHS <b>workplace policies and procedures</b> to prevent injury and damage</p> <p>2.5 Faults requiring urgent action are noted and appropriate action is taken to initiate immediate response to minimize risk from continued movement of train</p>
3. Report and action on-ground roll-by inspection results	<p>3.1 Reports of on-ground inspections are completed to reflect inspection results</p> <p>3.2 <b>Appropriate personnel</b> are informed of any faults or defects requiring rectification and <b>operation</b></p> <p>3.3 Records and <b>information</b> are circulated and filed in accordance with workplace procedures and <b>regulation</b></p>

4. Report on-train roll-by inspection results	<p>4.1 Outcomes of on-train roll-by inspections are transmitted to <b><i>appropriate personnel</i></b></p> <p>4.2 Records of on-train roll-by inspections are made in accordance with workplace policies and procedures</p>
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Variable	Range
Locations for examinations	<p>May include:</p> <ul style="list-style-type: none"> <li>• heavy traffic</li> <li>• high volume city freight terminals</li> <li>• crossing loops</li> <li>• remote regional yard and siding locations</li> </ul>
Safety and protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• gloves</li> <li>• sunscreen</li> <li>• sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear</li> <li>• safety footwear</li> <li>• portable radios</li> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• hearing protection</li> </ul>
Condition of rolling stock and load	<p>May include:</p> <ul style="list-style-type: none"> <li>• brake equipment</li> <li>• draw gear</li> <li>• superstructures</li> <li>• out-of-gauge conditions</li> <li>• wheels</li> <li>• bearings</li> <li>• locking and securing devices</li> <li>• dangerous goods condition and separation</li> <li>• air and electrical connections</li> <li>• load condition (damage, leaks etc.)</li> <li>• load securing devices (chains, ropes, pins etc.)</li> <li>• trailing items (ropes, hoses etc.)</li> </ul>
Communication methods	<p>May include:</p> <ul style="list-style-type: none"> <li>• written</li> <li>• verbal</li> <li>• line-of-sight signals</li> <li>• radio</li> <li>• mobile/satellite phone</li> </ul>

workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Appropriate personnel	<p>May include:</p> <ul style="list-style-type: none"> <li>• train controllers</li> <li>• other train examiners/inspectors</li> <li>• maintenance personnel</li> <li>• train crews</li> <li>• yard and other operational personnel</li> <li>• those responsible for controlling signals</li> </ul>
Operations conducted by day or night in:	<p>May include:</p> <ul style="list-style-type: none"> <li>• all weather conditions</li> <li>• the full range of light conditions</li> <li>• typical running temperatures of trains</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace procedures and instructions and job specification</li> <li>• repair cards and books</li> <li>• inspection reports</li> <li>• consist forms</li> <li>• wagon cards</li> <li>• transport instructions</li> <li>• incident reports</li> <li>• safe working forms</li> <li>• out-of-gauge documents</li> <li>• load and weight records</li> <li>• dangerous goods manifest</li> <li>• drivers advice (train load)</li> <li>• mechanical condition advice forms</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Persons involved in examination	<p>May include:</p> <ul style="list-style-type: none"> <li>• self only or self in conjunction with other personnel</li> </ul>
Load status of train during examination	<p>May include:</p> <ul style="list-style-type: none"> <li>• loaded or unloaded</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> </ul>
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	<ul style="list-style-type: none"> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations:</li> <li>• interpreting documentation and reports to confirm roll-by inspection requirements</li> <li>• positioning at appropriate location and time to conduct roll-by inspection</li> <li>• systematically observing condition of rolling stock and load of moving train</li> <li>• identifying faults in rolling stock and load of moving train</li> <li>• identifying and actioning urgent faults to minimize risk from continued movement of train</li> <li>• preparing actioned reports of inspection results</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Procedures for planning a roll-by inspection of a moving train</li> <li>• Procedures for carrying out a roll-by inspection of a moving train</li> <li>• Procedures for completing documentation relevant to a roll-by inspection of a moving train</li> <li>• Security procedures</li> <li>• Standards and specifications for all items requiring examination</li> <li>• Contingency management processes for unexpected situations that May arise when carrying out a roll-by inspection of a moving train</li> <li>• Communication protocols</li> </ul> <p>Documentation requirements relating to a roll-by inspection</p>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when carrying out a roll-by inspection of a moving train</li> <li>• Read and interpret instructions, procedures, information and signs relevant to work activities</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to a roll-by inspection of a moving train</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when carrying out a roll-by inspection of a moving train</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May occur when carrying out a roll-by</li> </ul>

	<p>inspection of a moving train in accordance with regulatory requirements and workplace procedures</p> <ul style="list-style-type: none"> <li>• Implement contingency plans for unexpected situations that May occur when carrying out a roll-by inspection of a moving train</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Railway operation Level III	
Unit Title	Test Train Braking System
Unit Code	<a href="#">EIS TRO3 17 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to test a train braking system in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes planning and preparing for, and testing train brake operation; dealing with identified faults; and recording the results of a brake test in accordance with workplace requirements.

Elements	Performance Criteria
1. Plan and prepare for train brake inspection and testing	<p>1.1 <b>Brake test documentation, rolling stock</b> data and other relevant reports are read to confirm required <b>operation</b></p> <p>1.2 If required, appropriate tools and equipment are obtained and checked prior to inspection and <b>tests</b></p> <p>1.3 OHS <b>legislation</b>, codes of practice, policies and procedures are identified and followed</p> <p>1.4 <b>Location for test</b> of the train is scheduled and secured in accordance with <b>workplace procedures</b> to make the work area safe for the inspection</p>
2. Inspect and test train brake operation	<p>2.1 Brake leakage test is conducted to ensure compliance with required standards</p> <p>2.2 Modified brake tests are conducted to ensure compliance with required standards</p> <p>2.3 Air continuity test is conducted to ensure train braking system meets functional specifications</p> <p>2.4 Brakes are applied and released to ensure train braking system meets functional specifications</p> <p>2.5 Hoses and pipe components are inspected for defects requiring repair or replacement</p> <p>2.6 Defects and faults are identified and rolling stock is carded</p>
3. Deal with identified faults	<p>3.1 Plans and/or procedures for replacement or repair of identified defective components are implemented in accordance with <b>workplace procedures</b> and manufacturers specifications</p> <p>3.2 Confirmation/verification of minor repairs or replacements is obtained</p> <p>3.3 Defective rolling stock not fit to run is identified and detachment arrangements are made in compliance with</p>

	workplace procedures 3.4 <b>Safety and protective equipment</b> conforming to industry and OHS standards is used
4. Record test results	4.1 Brake test records are completed to reflect inspection results in accordance with workplace policies and procedures 4.2 Records are circulated and filed in accordance with workplace policies and procedures

Variable	Range
Operations conducted	Include by day or night in: <ul style="list-style-type: none"> <li>• all weather conditions</li> <li>• the full range of light conditions</li> <li>• typical running temperatures of trains</li> </ul>
Locations for tests	May include: <ul style="list-style-type: none"> <li>• heavy traffic</li> <li>• high volume city freight terminals</li> <li>• passenger yards or sidings</li> <li>• station platforms</li> <li>• remote regional yard and siding locations</li> </ul>
Movement status of rolling stock to be tested	May include: <ul style="list-style-type: none"> <li>• arriving</li> <li>• departing</li> <li>• stationary</li> </ul>
Load status of train during brake testing	May be: <ul style="list-style-type: none"> <li>• loaded or unloaded</li> </ul>
Tests	May include: <ul style="list-style-type: none"> <li>• brake leakage test</li> <li>• air continuity test</li> <li>• modified brake test</li> <li>• train brake test</li> <li>• hose and pipe components repair or replacement</li> </ul>
Safety and protective equipment	May include: <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• gloves</li> <li>• sunscreen</li> <li>• sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear</li> <li>• safety footwear</li> <li>• portable radios/mobile phones</li> </ul>



	<ul style="list-style-type: none"> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• hearing protection</li> </ul>
Depending on the type of organisation concerned and the local terminology used, workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace procedures and instructions and job specification</li> <li>• manufacturers specifications and standards</li> <li>• brake inspection and testing documentation</li> <li>• safe working documentation</li> <li>• brake test certification</li> <li>• equipment operations manuals</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• conducting inspections and testing of brake operations on all relevant types of passenger train, freight train or railcar</li> <li>• identifying defects and faults in train braking systems</li> <li>• implementing workplace procedures to deal with identified defects and faults</li> </ul> </li> </ul> <p>completing records of test results in accordance with workplace procedures</p>
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Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations including codes of practice for manual handling</li> <li>• Brake systems, their components and their operation</li> <li>• Types of brake tests and their purpose</li> <li>• Tools and equipment applications</li> <li>• Diagnostic techniques</li> <li>• Communication protocols</li> <li>• Documentation requirements relating to brake testing</li> </ul> <p>Procedures for completing relevant documentation</p>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when testing a train braking system</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the testing of a train braking system</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the testing of a train braking system</li> <li>• Work collaboratively with others when testing a train braking system</li> <li>• Promptly report any identified problems, faults or malfunctions when testing a train braking system in accordance with regulatory requirements and workplace procedures</li> <li>• Apply rail safety practices and regulations</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Assess brake system defects</li> <li>• Operate and adapt to differences in brakes and related equipment in accordance with standard operating procedures</li> </ul> <p>Select and use required personal protective equipment conforming to industry and OHS standards</p>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>

Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Shunt, Couple and Uncouple Electric Passenger Trains
Unit Code	<a href="#">EIS TRO3 07 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to shunt, couple and uncouple an electric passenger train to operational requirements in accordance with safe working and regulatory requirements and workplace procedures. This includes planning and preparing for shunting operations, shunting the train, coupling and uncoupling the train, and using a coupling adaptor.

Elements	Performance Criteria
1. Plan and prepare for shunting operation	<p>1.1 Shunting requirements are confirmed through workplace <b>documents</b> and/or relevant personnel</p> <p>1.2 Local safety requirements are identified and performed according to <b>workplace procedures</b></p> <p>1.3 Relevant <b>OHS requirements</b> are followed in using personal protective equipment</p> <p>1.4 <b>Contingency plan</b> is implemented for unplanned events</p>
2. Shunt trains	<p>2.1 Where required, points, levers and/or switches are on <b>operation</b> in accordance with workplace requirements</p> <p>2.2 Audible signals, hand signals and other line of sight communications are used to assist the control of train movements</p> <p>2.3 Hand, light and radio shunting commands used are responded to in accordance with workplace requirements</p> <p>2.4 Pre-movement inspection/tests are carried out prior to moving trains</p> <p>2.5 Train is shunted and positioned as per operational/workplace requirements</p> <p>2.6 Following shunt movement train is secured according to workplace requirements</p>
3. Couple trains	<p>3.1 Type of connections required are identified prior to coupling <b>equipment</b></p> <p>3.2 Trains to be coupled are positioned according to operating procedures and workplace requirements</p> <p>3.3 Trains to be coupled are fully secured</p> <p>3.4 Ensure couplers are aligned and in the appropriate position for type of connection required</p> <p>3.5 Ensure all safety requirements are met prior to coupling</p>

	<p>trains</p> <p>3.6 Trains are coupled as per operational/workplace requirements</p> <p>3.7 Post-coupling inspection/tests are carried out according to operating procedures and workplace requirements</p>
4. Uncouple trains	<p>4.1 Trains to be uncoupled are identified and pre-uncoupling checks and, where required, procedures are conducted according to operating procedures and workplace requirements</p> <p>4.2 Ensure all safety requirements are met prior to uncoupling trains</p> <p>4.3 Train that will remain after uncoupling is fully secured</p> <p>4.4 Trains are uncoupled according to operating procedures and workplace requirements</p> <p>4.5 Post-uncoupling inspection/tests are carried out according to operating procedures and workplace requirements</p>
5. Use coupling adaptor	<p>5.1 Situations requiring the use of a coupling adaptor are identified as per workplace procedures</p> <p>5.2 Coupling adaptor is accessed and transported to required location for use</p> <p>5.3 Ensure all safety requirements are met prior to fitting coupling adaptor</p> <p>5.4 Coupling adaptor is attached to one of the trains prior to coupling according to <b>workplace procedures</b></p> <p>5.5 Trains are coupled in accordance with workplace procedures and coupling adaptor is secured in place</p> <p>5.6 Post-coupling inspection/tests and/or procedures are carried out according to operating procedures ,applicable <b>regulation and legislation</b></p>

Variable	Range
Operations	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all weather conditions</li> </ul>
Equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• electric passenger train</li> <li>• transition coupler</li> <li>• emergency coupler</li> <li>• coupling adaptor</li> </ul>
OHS requirements	<p>May include the use of:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• sunscreen, sunglasses and safety glasses</li> </ul>

	<ul style="list-style-type: none"> <li>• insect repellent</li> <li>• safety footwear</li> <li>• portable radios</li> <li>• hand lamps</li> <li>• flags</li> <li>• high visibility clothing</li> <li>• emergency warning devices</li> <li>• portable signs and markers</li> </ul>
Contingency plans and contingencies	<p>May involve:</p> <ul style="list-style-type: none"> <li>• emergency procedures manuals</li> <li>• safe working systems and requirements</li> </ul>
Depending on the type of organisation concerned and the local terminology used, workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including state and territory acts and regulations together with any nationally approved compliance codes and/or guidelines</li> <li>• notice boards</li> <li>• special train notices</li> <li>• periodical circulars</li> <li>• rules and operating procedures</li> <li>• computer-based data systems</li> <li>• timetables</li> <li>• train consist</li> <li>• incident reports</li> <li>• train register book</li> <li>• emergency procedures manual</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Applicable regulations, legislation and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant state/territory codes of practice and safe working system requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory fatigue management regulations</li> <li>• relevant state/territory environmental protection legislation</li> <li>• relevant Ethiopian Standards</li> </ul>

<b>Evidence Guide</b>	
<b>Critical Aspects of Competence</b>	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• carrying out pre-shunting checks correctly</li> <li>• shunting in a number of locations including sidings and depots/yards</li> </ul> </li> </ul> <p>coupling an electric passenger train, including correct use of coupling adaptor</p>
<b>Underpinning Knowledge and Attitudes</b>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable minimum standards and approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations including codes of practice for manual handling</li> <li>• Shunting procedures and requirements</li> <li>• Coupling systems, their components and their operation</li> <li>• Types of couplers and their purpose</li> <li>• Types of coupling adaptors and their purpose</li> <li>• Diagnostic techniques relating to shunting, coupling and uncoupling electric passenger trains</li> <li>• Communication protocols</li> <li>• Procedures to be followed in the event of an emergency</li> </ul>
<b>Underpinning Skills</b>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when shunting, coupling and uncoupling electric passenger trains</li> <li>• Read and interpret instructions, procedures, information and signs relevant to shunting, coupling and uncoupling electric passenger trains</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when shunting, coupling and uncoupling electric passenger trains</li> <li>• Identify and assess electric passenger train defects and deficiencies and take appropriate action to report, isolate, repair or replace any identified defective equipment as per workplace procedures</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions when shunting, coupling and uncoupling electric passenger trains in accordance with regulatory requirements and workplace procedures</li> <li>• Apply rail safety practices and regulations</li> </ul>

	<ul style="list-style-type: none"> <li>• Implement contingency plans for unplanned events</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Assess shunting, coupling and uncoupling defects</li> <li>• Operate and adapt to differences in trains and related equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting



Occupational Standard: Train Operation Level III	
Unit Title	Implement and Monitor Occupational Health and Safety Procedures
Unit Code	<a href="#">EIS TRO3 08 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to implement and monitor OHS procedures, including accessing information about OHS and the workplace policies and procedures, implementing and monitoring procedures for identifying and assessing hazards, implementing and monitoring/auditing procedures for controlling risks, planning and supervising housekeeping arrangements, and implementing and monitoring procedures for dealing with hazardous events.

Elements	Performance Criteria
1. Access information about OHS and the workplace policies and procedures	<p>1.1 Relevant provisions of occupational health and safety <b>legislation and codes</b> of practice are accurately followed</p> <p>1.2 Information on <b>workplace</b> occupational health and safety policies, procedures and programs is <b>recorded</b> in a readily accessible location and manner</p> <p>1.3 <b>Information</b> is accurately and clearly explained to the <b>work</b> team</p> <p>1.4 Information about the outcomes of risk identification and control procedures is provided to appropriate <b>personnel</b></p>
2. Implement and monitor procedures for identifying and assessing hazards	<p>2.1 Existing and potential <b>hazards</b> in the work area are identified and reported</p> <p>2.2 Identified hazards are assessed in relation to relative risk</p> <p>2.3 Appropriate action is initiated to minimize and control the risks/hazards</p> <p>2.4 <b>OHS training</b> is given to minimize hazards and relevant risks</p>
3. Implement and monitor procedures for controlling risks	<p>3.1 Existing risk control measures are implemented, monitored and reviewed</p> <p>3.2 Work procedures to control risks are implemented and adherence to them by the work group is monitored</p> <p>3.3 Required improvements to existing risk control measures are identified, including required resources for <b>implementation/monitoring</b>, and reported to appropriate personnel</p> <p>3.4 Procedures for monitoring and controlling risks provide for a hierarchy of control</p>

4. Plan and supervise housekeeping arrangements	<p>4.1 Housekeeping tasks are identified and incorporated in enterprise work roles</p> <p>4.2 Housekeeping equipment is maintained</p> <p>4.3 Team members are allocated housekeeping tasks and supervised</p> <p>4.4 Housekeeping procedures and practices are planned to conform with environmental and occupational health and safety requirements</p> <p>4.5 Required <b>personal protective equipment</b> is used conforming industry and OHS standards</p>
5. Implement and monitor procedures for dealing with hazardous events	<p>5.1 <b>Workplace procedures</b> for dealing with hazardous events are implemented in <b>participative arrangement</b> to ensure that prompt control action is taken</p> <p>5.2 <b>Hazardous events</b> are investigated to identify causes</p> <p>5.3 Control measures are implemented to prevent recurrence and minimize <b>OHS risks</b> of hazardous events or issues and are referred to <b>designated personnel</b> for implementation</p>

Variable	Range
The implementation and monitoring of OHS within work operations	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> </ul>
Workplaces	May comprise: <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
Work	May be conducted in: <ul style="list-style-type: none"> <li>• restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> </ul>
Workplace hazards	May include: <ul style="list-style-type: none"> <li>• chemicals and other harmful substances</li> <li>• movements of equipment, goods, vehicles</li> <li>• toxic substances</li> <li>• damaged packing material and containers</li> <li>• broken and damaged equipment</li> <li>• inflammable materials and fire hazards</li> <li>• lifting practices</li> <li>• waste management and disposal</li> <li>• extremes in weather conditions</li> <li>• lighting levels</li> <li>• floor surfaces</li> <li>• water hazards</li> <li>• traffic flows, vehicle and equipment operation</li> </ul>

	<ul style="list-style-type: none"> <li>• dangerous storage areas</li> <li>• violent incidents such as armed robberies</li> </ul>		
Responsibilities in the implementation/monitoring of OHS	<p>May include:</p> <ul style="list-style-type: none"> <li>• provision of OHS information to staff</li> <li>• consultation and participation in meetings on OHS matters</li> <li>• emergency procedures and response</li> <li>• housekeeping</li> <li>• identifying and minimising workplace hazards</li> <li>• assessing and controlling OHS risks</li> <li>• OHS training and assessment</li> <li>• use of personal protective equipment</li> <li>• keeping of OHS records</li> <li>• reporting of OHS issues and incidents</li> <li>• resolution of OHS issues</li> <li>• checking work area and/or equipment before and during work</li> <li>• participation in OHS audits and workplace inspections</li> </ul>		
Controlling OHS risks	<p>May include</p> <ul style="list-style-type: none"> <li>• measures to remove the cause of a risk at its source</li> <li>• consultation with workers and their representatives</li> <li>• application of the hierarchy of control, namely: <ul style="list-style-type: none"> <li>• elimination of the risk</li> <li>• engineering controls</li> <li>• administrative controls</li> <li>• personal protective equipment</li> </ul> </li> </ul>		
Procedures for dealing with hazardous events	<p>May include:</p> <ul style="list-style-type: none"> <li>• evacuation</li> <li>• chemical containment</li> <li>• first aid</li> <li>• accident/safety incident reporting and investigation</li> </ul>		
OHS training	<p>May include:</p> <ul style="list-style-type: none"> <li>• induction training</li> <li>• specific hazard training</li> <li>• specific task or equipment training</li> <li>• emergency and evacuation training</li> <li>• training as part of broader programs, for example equipment operation</li> </ul>		
OHS records	<p>May include:</p> <ul style="list-style-type: none"> <li>• OHS audits and inspection reports</li> <li>• health surveillance and workplace environmental monitoring records</li> <li>• records of instruction and training</li> <li>• manufacturers and suppliers information, including material safety data sheets and dangerous goods storage lists</li> <li>• hazardous substances registers</li> <li>• maintenance and testing reports</li> <li>• workers compensation and rehabilitation records</li> </ul>		
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	<ul style="list-style-type: none"> <li>• first aid/medical post records.</li> </ul>
Personnel in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace personnel and management</li> <li>• site visitors</li> <li>• OHS specialists</li> <li>• union representatives</li> <li>• contractors</li> <li>• official OHS representatives</li> </ul>
Personal protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• high visibility clothing</li> </ul>
Participative arrangements	<p>May include:</p> <ul style="list-style-type: none"> <li>• formal and informal meetings which deal with OHS issues</li> <li>• workplace OHS committees</li> <li>• other committees, for example, consultative, planning and purchasing</li> <li>• OHS representatives</li> <li>• suggestions, requests, reports and concerns put forward by staff</li> </ul>
Designated personnel	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace personnel</li> <li>• supervisors</li> <li>• team leaders</li> <li>• management</li> <li>• occupational health and safety personnel</li> <li>• other persons authorised or nominated by the organisation</li> </ul>
Depending on the type of organisation concerned and the local terminology used, workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• OHS regulations, responsibilities and obligations</li> <li>• workplace OHS procedures and policies</li> <li>• codes of practice including the National Standards for Manual Handling and the Industry Safety Code</li> <li>• material safety data sheets</li> <li>• policies and procedures for entry and work in confined spaces</li> <li>• manufacturer's instructions concerning the use and servicing of equipment</li> <li>• supplier and/or client instructions</li> <li>• emergency procedures</li> <li>• regulations and policies concerning noise, smoking, work</li> </ul>

	<p>station ergonomics and other critical OHS issues</p> <ul style="list-style-type: none"> <li>• goods identification numbers and codes</li> <li>• manifests, bar codes, goods and container identification</li> <li>• relevant legislation, regulations and related documentation</li> <li>• award, enterprise bargaining agreement, other industrial arrangements</li> <li>• standards and certification requirements</li> <li>• quality assurance procedures</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• Relevant state/territory OHS legislation and safety codes, including manual handling, noise, confined spaces, smoking, workplace ergonomics, etc.</li> <li>• general duty of care under OHS legislation</li> <li>• workplace relations regulations</li> <li>• workers compensation regulations</li> <li>• dangerous goods regulations</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> </ul> <p>other relevant aspects of the range statement</p>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant OHS procedures and guidelines</li> <li>• Risks when using manually-operated equipment to shift loads and related precautions to control the risk</li> <li>• Reporting procedures in regard to unsafe situations, fire hazards, broken or damaged equipment or fittings, sickness and accidents</li> <li>• Location and use of safety alarms, manifests, emergency shut-off systems, emergency communication systems</li> <li>• Signs and signals used for OHS warnings</li> <li>• Terms used in material safety data sheets</li> <li>• HAZCHEM symbols and implications for safe work and storage</li> <li>• Procedures for the storage and use of hazardous substances</li> <li>• Procedures for the storage and use of flammable materials</li> <li>• Manual and mechanically assisted lifting and load shifting procedures</li> <li>• Transport requirements for goods within workplace</li> <li>• Emergency and evacuation procedures</li> <li>• Housekeeping standards and procedures required in the workplace</li> <li>• Site layout and obstacles</li> </ul>

<p>Underpinning Skills</p>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when implementing and monitoring compliance with OHS procedure and policies</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the implementation and monitoring of compliance with OHS procedure and policies</li> <li>• Identify containers and goods coding, ADG and IMDG markings and, where applicable, emergency information panels</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the implementation and monitoring of compliance with OHS procedure and policies</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Estimate the size, shape and special requirements of loads</li> <li>• Work collaboratively with others when implementing and monitoring compliance with OHS procedure and policies</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May arise when implementing and monitoring compliance with OHS procedure and policies in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May occur when implementing and monitoring compliance with OHS procedure and policies</li> <li>• Ensure that precautions and required action are taken to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Apply fatigue management knowledge and techniques</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Monitor performance of equipment</li> <li>• Service equipment in terms of maintenance schedule and standard operating procedures</li> </ul>
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	<ul style="list-style-type: none"> <li>• Check and replenish fluids and carry out lubrication processes in the course of work activities</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

<b>Occupational Standard: Train Operation Level III</b>	
<b>Unit Title</b>	<b>Operate On-Train Remote Control System</b>
<b>Unit Code</b>	<a href="#">EIS TRO3 11 0313</a>
<b>Unit Descriptor</b>	This unit involves the skills and knowledge required to operate an on-train remote control system in accordance with safe working and regulatory requirements and workplace procedures. It includes positioning equipment and motive power units, operating the system and shutting it down after operation.

<b>Elements</b>	<b>Performance Criteria</b>
1. Position equipment and motive power unit/s	1.1 Remote control equipment and motive power units are positioned in required locations 1.2 Brake test is conducted on each train section with the assistance of appropriate personnel 1.3 Front and rear train consists are coupled together to form one train, applying safe working techniques 1.4 Relevant OHS requirements are followed to prevent injury and damage 1.5 Relevant codes of practice and safe working systems and requirements are followed
2. Monitor and operate remote control equipment	2.1 Motive power units and control system set-up are checked to ensure safe operational status 2.2 Remote control equipment is operated and monitored in accordance with operational requirements during train movements to provide safe train handling and control 2.3 Any operational difficulties encountered are addressed by re-establishing control of the motive power unit(s) with minimum risk to personnel and equipment
3. Shut down remote control equipment	3.1 Shut-down procedures of lead and remote control equipment are followed to ensure train security and de-activation of the system 3.2 Equipment indicators or functions are operated to ensure the shut-down process is correct and complete

<b>Variable</b>	<b>Range</b>
Operations	May be conducted: <ul style="list-style-type: none"> <li>• by day or night</li> <li>• in all weather conditions</li> </ul>
On-train remote control equipment	<ul style="list-style-type: none"> <li>• that using any mechanism and operating system to allow the control of one motive power unit which is part of a train from</li> </ul>



	another unit which is part of the same train
Motive power units include all motive power units in service within Ethiopian rail systems and	<p>May include:</p> <ul style="list-style-type: none"> <li>• diesel locomotives</li> <li>• electric locomotives</li> <li>• railcars</li> <li>• multiple units including electric</li> <li>• non-operational units</li> </ul>
Remote control operation	<p>May be used:</p> <ul style="list-style-type: none"> <li>• within a yard for the purpose of marshalling</li> <li>• shunting</li> <li>• on running lines</li> </ul>
Action taken as a result of identified faults, defects or deficiencies	<p>May include:</p> <ul style="list-style-type: none"> <li>• carrying out repairs or adjustments, depending on the level and extent of work required</li> <li>• reporting to appropriate personnel</li> </ul>
Depending on the type of organisation concerned and the local terminology used, workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Safety and protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• gloves</li> <li>• sunscreen</li> <li>• sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear</li> <li>• safety footwear</li> <li>• portable radios/mobile phones</li> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• hearing protection</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant log or record book</li> <li>• maintenance notices, records and requests</li> <li>• local instructions</li> <li>• equipment operation manuals</li> <li>• operational instructions, policies and procedures</li> <li>• emergency procedure manuals</li> <li>• two-way radio operation procedures</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>

Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory codes of practice and safe working system requirements</li> <li>• relevant Ethiopian Standards and related requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
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<b>Evidence Guide</b>	
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Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul> </li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• operating remote control system in a range of configurations and/or trains</li> <li>• identifying possible operating difficulties that May occur during the operation using remote control</li> <li>• shutting down remote control system correctly</li> </ul> </li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• On-train remote control unit controls, instruments and indicators and their purpose, location and use</li> <li>• Positioning procedures</li> <li>• Shut-down procedures</li> <li>• Braking and safety system procedures</li> <li>• Procedures for the control of motive power units</li> <li>• Procedures for the operation of remote control units</li> <li>• Motive power operating techniques</li> <li>• Procedures for managing hazardous situations involving on-line remote control systems</li> <li>• Operational instructions</li> </ul>

	<ul style="list-style-type: none"> <li>• Shunting and marshalling procedures</li> <li>• Procedures for identifying equipment defects in remote control units and assessing for appropriate action including compatible coupling, braking and drive equipment, ancillary systems and signalling systems</li> <li>• Procedures for operating electronic communications equipment with required protocol</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when operating on-train remote control system</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the operation of on-train remote control system</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the operation of on-train remote control system</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when operating on-train remote control system</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions when operating on-train remote control system in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unexpected events when operating on-train remote control system</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Judge train speeds and movements</li> <li>• Monitor performance of equipment and take appropriate action if required</li> </ul>

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Plan Passenger Train Consists
Unit Code	<a href="#">EIS TRO3 12 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to plan passenger train consists in accordance with regulatory and workplace requirements, including identifying passenger requirements and resources; planning connections with other passenger services; and planning consists for rural passenger trains.

Elements	Performance Criteria
1. Identify passenger requirements and resources	<p>1.1 Passenger usage patterns, specific bookings and external events likely to influence passenger numbers are monitored and applied to passenger train consist planning according to applicable <b>regulation and legislation</b></p> <p>1.2 Requirements for carriages and motive power units for passenger trains are adjusted in light of passenger demand</p> <p>1.3 Train crewing needs and/or constraints are identified to ensure consists are compatible with available <b>passenger resources</b></p> <p>1.4 Passenger usage patterns are monitored and train configurations are adjusted in accordance with <b>workplace procedures</b></p> <p>1.5 Shunting and marshalling requirements are identified for planned passenger train consists in accordance with timetable requirements</p> <p>1.6 <b>Operation</b> of work systems, equipment, management and site operating systems consists for the planning of passenger train</p>
2. Plan connections with other passenger services	<p>2.1 Passenger train timetables are compared with timetables from <b>other passenger services</b> for coordination purposes</p> <p>2.2 Passenger flow patterns for related services are checked to ensure smooth flow patterns</p> <p>2.3 Modifications to existing timetables are planned to ensure mutually supporting passenger services are achieved where possible</p> <p>2.4 Plan identifies and includes suitable passenger transit holding areas between services</p> <p>2.5 Timetable reviews and passenger flow issues are discussed with the appropriate external passenger service providers</p>

3. Plan consists for passenger trains	<p>3.1 Electronic <b>communication</b> equipment are operated to required protocol</p> <p>3.2 Consists are planned, taking into account the need to move passengers efficiently within constraints of carriage availability, motive power availability, personnel availability, track layout, track condition, gauge and weight</p> <p>3.3 Passenger <b>train details</b> consists are forwarded to yard and terminal operations for planning purposes</p> <p>3.4 <b>Personal protective equipment</b> are used conforming to industry and OHS standards</p> <p>3.5 <b>Documentation</b> related to the planning of urban passenger train is completed</p>
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Variable	Range
Operations	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments, spaces and weather conditions</li> <li>• by day or night</li> </ul>
Passenger resources	May include: <ul style="list-style-type: none"> <li>• resources required at embarkation</li> <li>• resources required at disembarkation</li> <li>• resources required during transit</li> </ul>
Other passenger services	May include: <ul style="list-style-type: none"> <li>• those provided by own organisation</li> <li>• other private and public transport providers using train, tram, bus, ferry, ship, air or road vehicular travel services</li> </ul>
Train details	Include: <ul style="list-style-type: none"> <li>• running times</li> <li>• factors affecting passenger load capacity for all relevant train services provide</li> </ul>
Communication in the work area	May include: <ul style="list-style-type: none"> <li>• Phone</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• RF systems</li> <li>• oral, aural or signed communications</li> </ul>
Personal protective equipment	May include: <ul style="list-style-type: none"> <li>• Gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• high visibility clothing</li> </ul>
Depending on the type of	May include: <ul style="list-style-type: none"> <li>• company procedures</li> </ul>

organisation concerned and the local terminology used, workplace procedures	<ul style="list-style-type: none"> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information and documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines relevant to passenger train movements</li> <li>• workplace procedures and policies related to the planning of rural passenger train consists</li> <li>• all forms of documentation used by the workplace for planning train support activities, including passenger booking and follow-up documentation</li> <li>• operations manuals, job specifications and induction documentation</li> <li>• conditions of service, award, enterprise bargaining agreement, and other industrial arrangements</li> </ul>
Applicable legislation, regulations and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> </ul>

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Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the planning of rural passenger train consists</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the planning of rural passenger train consists</li> <li>• Appropriate rural passenger train consists and types of rural passenger trains</li> <li>• Platform and station details</li> <li>• Signalling equipment used at the stations or platforms</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Shunting and marshalling requirements</li> <li>• Track knowledge including speeds and maximum rural passenger train lengths for all sections of track to be used for the rail service offered by the organisation</li> <li>• Problems that May occur when planning rural passenger train consists and appropriate action that can be taken to resolve the problems</li> <li>• Documentation and reporting requirements for the planning of rural passenger train consists</li> </ul>		
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Read and interpret instructions, procedures and information relevant to the planning of rural passenger train consists</li> <li>• Interpret timetables, and time graphs and diagrams</li> <li>• Complete documentation related to the planning of rural passenger train consists</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when planning rural passenger train consists</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May arise when planning rural passenger train consists in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May arise when planning rural passenger train consists</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Plan passenger support services including transit arrangements</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select the most cost effective motive power units or locomotive(s) and carriages to provide required rural passenger train services</li> <li>• Adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment</li> </ul>		
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	conforming to industry and OHS standards
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
<b>Unit Title</b>	<b>Shift Loads Using Gantry Equipment</b>
<b>Unit Code</b>	<a href="#">EIS TRO3 13 0313</a>
<b>Unit Descriptor</b>	This unit involves the skills and knowledge required to shift loads using gantry equipment in accordance with workplace and regulatory requirements, including planning the work for the prevailing working conditions; using the controls and operating systems to manage the operation of the equipment; locating the load and identifying the load characteristics; safely moving the load; monitoring the controls; and stopping, shutting down and securing the equipment after the completion of operations.

Elements	Performance Criteria
1. Plan work for the prevailing working conditions	<p>1.1 Traffic flow, weather and <b>work place</b> conditions are constantly assessed and anticipated to allow safe operation to ensure no injury to people, or damage to equipment, loads or facilities</p> <p>1.2 Characteristics of the load are taken into account to ensure that, where applicable, appropriate attachments/gear are used to move the load</p> <p>1.3 Any occurrences in the work area that May affect the safety and efficiency of operations are reported to the appropriate <b>personnel</b> in the work area</p> <p>1.4 <b>Work</b> May be conducted in a range of environment according to the work place procedure</p>
2. Use controls and operating systems to manage the operation of the equipment	<p>2.1 Equipment is prepared and appropriate attachments fitted</p> <p>2.2 Gear and operational levers are checked to ensure that they are in the neutral position prior to inserting ignition key and starting engine</p> <p>2.3 Engine is started in accordance with manufacturers guidelines to bring the engine to speed</p> <p>2.4 Instruments and gauges are monitored during start-up and operations to ensure that operation is within manufacturers specifications and workplace and regulatory safety requirements</p> <p>2.5 Engine power is managed for efficiency of equipment movement and economy of equipment operations</p> <p>2.6 Equipment operations are conducted within manufacturers specified torque range</p> <p>2.7 Any faults or damage to equipment are immediately</p>

	reported to the appropriate personnel
3. Locate load and identify load characteristics	<p>3.1 Load is located and identified according to instructions</p> <p>3.2 Requirements for Safe Working Load (SWL) and Working Load Limit (WLL) of the gantry equipment are identified</p> <p>3.3 Load weight and dimensions are checked to ensure they fall within the capacity of the equipment</p> <p>3.4 Loading and unloading plans are followed to ensure efficiency and safety of operations</p> <p>3.5 Characteristics of the load are taken into account to ensure that appropriate loading and unloading procedures are followed</p>
4. Safely move load	<p>4.1 Equipment is operated and positioned using smooth and controlled movements</p> <p>4.2 Maneuvers are within the limits of the equipment and in line with manufacturers specifications</p> <p>4.3 Load is moved ensuring no injury to personnel or damage to equipment or cargo/freight</p> <p>4.4 Continuous <b>communication</b> is maintained with personnel assisting the operator in the load movement operations using appropriate communications technology and procedures</p> <p>4.5 In the event of a safety incident or emergency, the equipment is immediately stopped and workplace emergency procedures followed</p> <p>4.6 <b>Personal protective equipment</b> is used conforming to industry and OHS standards</p>
5. Monitor and operate controls	<p>5.1 Equipment controls are monitored and operated in accordance with manufacturers operating instructions</p> <p>5.2 Control systems are understood and acted upon in accordance with regulatory requirements, manufacturers guidelines and workplace operating procedures</p> <p>5.3 Control faults are identified and reported in accordance with enterprise guidelines</p> <p>5.4 Hazards in the work area are identified and appropriate measures are adopted to control the risks in accordance with regulatory requirements and <b>workplace procedures</b></p>
6. Stop, shut down and secure equipment	<p>6.1 Equipment is brought to a controlled halt and shut down without injury to personnel or damage to equipment, loads or facilities in accordance with manufacturers guidelines and workplace procedures</p> <p>6.2 <b>Range of equipment</b> is secured in accordance with</p>

	<p>manufacturer instructions and <b>workplace procedures</b></p> <p>6.3 Legislated rail safety requirements including acts and <b>regulations</b> from each applicable state and territory together with any nationally approved compliance codes and/or guidelines <b>information /documents</b> is used</p>
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Variable	Range
Work	May be: <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> </ul>
Workplaces	May comprise: <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
Work	May be conducted in: <ul style="list-style-type: none"> <li>• limited or restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> <li>• even or uneven surfaces</li> <li>• wet or dry surfaces</li> </ul>
Cargo/freight	May include: <ul style="list-style-type: none"> <li>• goods/containers with specialist requirements, including temperature controlled goods and dangerous goods</li> </ul>
Range of equipment	May include: <ul style="list-style-type: none"> <li>• various types of bridge and gantry cranes</li> </ul>
Personal protective equipment	May include: <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• protective clothing</li> <li>• high visibility clothing</li> </ul>
Communication in the work area	May include: <ul style="list-style-type: none"> <li>• phone</li> <li>• fax</li> <li>• email</li> <li>• electronic data transfer (EDI)</li> <li>• RF systems</li> <li>• radio</li> <li>• oral, aural or signed communications</li> </ul>
Personnel in work area	May include: <ul style="list-style-type: none"> <li>• workplace personnel</li> <li>• site visitors</li> <li>• contractors</li> <li>• official representatives</li> </ul>

Depending on the type of organisation concerned and the local terminology used, workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information/docu ments	<p>May include:</p> <ul style="list-style-type: none"> <li>• goods identification numbers and codes</li> <li>• manifests, bar codes, and container identification/serial number</li> <li>• operations manuals, job specifications and induction documentation</li> <li>• manufacturers specifications for equipment</li> <li>• workplace procedures and policies</li> <li>• supplier and/or client instructions</li> <li>• dangerous goods declarations and material safety data sheets</li> <li>• award, enterprise bargaining agreement, other industrial arrangements</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant codes and regulations for the shifting of cargo/containers using gantry equipment</li> <li>• licence, patent or copyright arrangements</li> <li>• water and road use and licence arrangements</li> <li>• export/import/quarantine/bond requirements</li> <li>• marine orders</li> <li>• relevant state/territory OHS and environmental protection legislation</li> <li>• workplace relations regulations</li> <li>• workers compensation regulations</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Ethiopian and international codes, regulations, licence/permit requirements relevant to the use of gantry equipment to shift loads</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> </ul>

	<ul style="list-style-type: none"> <li>• Workplace procedures and policies for the use of gantry equipment to shift loads</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the use of gantry equipment to shift loads</li> <li>• Problems that May occur when using gantry equipment to shift loads and appropriate action that can be taken to resolve the problems</li> <li>• Relevant safety codes and emergency procedures</li> <li>• Types of gantry equipment used to shift loads in terminals/wharves, their applications and procedures and precautions for their use</li> <li>• Requirements for Safe Working Load (SWL) and Working Load Limit (WLL) of gantry equipment</li> <li>• The marking and numbering systems for cargo</li> <li>• Relevant bond, quarantine or other legislative requirements</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when shifting loads using gantry equipment</li> <li>• Read and interpret instructions, procedures, information and labels relevant to the shifting of loads using gantry equipment</li> <li>• Identify cargo, container and goods, coding, EDG and IMDG markings and where applicable emergency information panels</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the shifting of loads using gantry equipment</li> <li>• Receive, acknowledge and send messages with appropriate communications equipment</li> <li>• Estimate the size, shape and special requirements of loads</li> <li>• Work collaboratively with others when shifting loads using gantry equipment</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May occur when shifting loads using gantry equipment in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May arise when shifting loads using gantry equipment</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during the shifting of loads using gantry equipment</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational</li> </ul>

	<p>contingencies, risk situations and environments</p> <ul style="list-style-type: none"> <li>• Apply fatigue management knowledge and techniques</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Identify, select and use relevant equipment, processes and procedures when using gantry equipment to shift loads</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Apply effective eye-hand coordination to operational tasks</li> <li>• Monitor performance of equipment</li> <li>• Service equipment in terms of maintenance schedule and standard operating procedures</li> <li>• Check and replenish fluids and carry out lubrication processes in the course of work activities</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

<b>Occupational Standard: Train Operation Level III</b>	
<b>Unit Title</b>	<b>Plan Freight Train Consists</b>
<b>Unit Code</b>	<a href="#">EIS TRO3 15 0313</a>
<b>Unit Descriptor</b>	This unit involves the skills and knowledge required to plan freight train consists in accordance with regulatory and workplace requirements, including identifying freight requirements and resources; and planning consists and loads for freight trains.

<b>Elements</b>	<b>Performance Criteria</b>
1. Identify freight requirements and resources	<p>1.1 Regular bookings for account customers for normal rail services are confirmed and details are forwarded to operations control</p> <p>1.2 Additional bookings for non-account customers are clarified with the customer and confirmation of bookings and freight train details are provided to the customer</p> <p>1.3 Details of regular and additional rail services, including planned running times, rolling stock and capacities, are confirmed</p> <p>1.4 After a period of non-contact, radio or other electronic contact is checked to ensure effective operation in accordance with standard operating procedures</p>
2. Plan consists and loads for freight trains	<p>2.1 Consists are planned, taking into account the need to move freight efficiently within constraints of wagon availability, motive power availability, personnel availability, track layout, track condition, gauge and weight</p> <p>2.2 Confirmed loads are allocated to suitable wagons and located within freight train consist to suit priorities</p> <p>2.3 Dangerous goods are identified for labeling and are located within the freight train consist as required under appropriate legislation and operational requirements</p> <p>2.4 Consists are planned to meet all requirements during planned movement of freight within and across the boundaries controlled by other organizations</p> <p>2.5 Details of freight train consists are forwarded to yard/terminal operations for freight loading planning purposes</p> <p>2.6 Maximum tonnage and freight train is identified and details forwarded for motive power allocation</p>



Variable	Range		
Operations	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments, spaces and weather conditions</li> <li>• by day or night</li> </ul>		
Freight rail services	Include: <ul style="list-style-type: none"> <li>• normal or standard rail freight services</li> <li>• special freight services offered to key account customers</li> <li>• rail freight services integrated with other freight handling and delivery services</li> </ul>		
Freight train details	Include: <ul style="list-style-type: none"> <li>• running times</li> <li>• factors affecting load capacity for all relevant freight train services provided</li> </ul>		
Consultative processes	May involve: <ul style="list-style-type: none"> <li>• other employees</li> <li>• supervisors and managers</li> <li>• customers</li> </ul>		
Communication in the work area	May include: <ul style="list-style-type: none"> <li>• phone</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• RF systems</li> <li>• oral, aural or signed communications</li> </ul>		
Personal protective equipment	May include: <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• high visibility clothing</li> </ul>		
Depending on the type of organisation concerned and the local terminology used, workplace procedures	May include: <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>		
Information and documents	May include: <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines relevant to freight train movements</li> <li>• workplace procedures and policies related to the planning of freight train consists</li> <li>• all forms of documentation used by the workplace for</li> </ul>		
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	<p>planning freight train support activities, including freight booking and follow-up documentation</p> <ul style="list-style-type: none"> <li>• operations manuals, job specifications and induction documentation</li> <li>• conditions of service, award, enterprise bargaining agreement, and other industrial arrangements</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Applicable legislation, regulations and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:</li> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for the planning of freight train consists</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the planning of freight train consists</li> <li>• Appropriate freight train consists and classes of freight trains</li> <li>• Platform and station details</li> <li>• Signalling equipment used at the stations or platforms</li> <li>• Shunting and marshalling requirements</li> <li>• Track knowledge including gradients, speeds, maximum freight train lengths, height and width, for all sections of track to be used for the rail service offered by the organisation</li> <li>• Capacities of motive power units to haul loads</li> <li>• Problems that May occur when planning freight train</li> </ul>

	<p>consists and appropriate action that can be taken to resolve the problems</p> <ul style="list-style-type: none"> <li>• Documentation and reporting requirements for the planning of freight train consists</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Read and interpret instructions, procedures and information relevant to planning freight train consists</li> <li>• Interpret timetables, and time graphs and diagrams</li> <li>• Complete documentation related to the planning of freight train consists</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when planning freight train consists</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May arise when planning freight train consists in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May arise when planning freight train consists</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Plan freight support services including transit arrangements</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select the most cost effective motive power units or locomotive(s) and wagons to provide required freight train services</li> <li>• Adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Train Operation Level III	
Unit Title	Test Equipment and Isolate Faults
Unit Code	<a href="#">EIS TRO3 16 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to test equipment and isolate faults in accordance with workplace requirements, including identifying scope of the operational test; planning operational tests; checking the equipment through full operating range; and isolating faults and/or formulating recommendations for adjustment, repair or replacement in accordance with workplace procedures and relevant regulatory requirements.

Elements	Performance Criteria
1. Identify scope of operational check	1.1 Physical condition of equipment is observed 1.2 Test procedures and parameters are identified in accordance with <b>workplace procedures</b> and manufacturers specifications 1.3 Preliminary observations are <b>recorded</b> 1.4 Test procedures are discussed with appropriate staff and necessary permission obtained 1.5 <b>Work</b> is done collaboratively with others when testing equipment and isolating faults
2. Plan operational checks	2.1 Specifications and notes from preliminary observations are checked and areas to be clarified are identified 2.2 Sequence of tests is planned noting areas where <b>results of tests</b> and observations should be recorded 2.3 Safe area for testing is identified 2.4 Arrangements are made for any additional resources (including staff)
3. Check unit through full operating range	3.1 <b>Test</b> is undertaken observing relevant safety and operational requirements 3.2 Results are recorded / <b>documented</b> and findings confirmed 3.3 The required <b>personal protective equipment</b> are selected and used conforming to industry and OHS standards 3.4 <b>Communication</b> is used effectively with others when testing equipment and isolating faults

4. Isolate fault and/or formulate recommendations	<p>4.1 Proposals for equipment repair are recorded based on faults found, cost/time implications and <b>workplace</b> approval systems</p> <p>4.2 Report is explained to relevant workplace personnel including any options and recommendations</p> <p>4.3 Parts are procured and/or repairs undertaken in accordance with enterprise procedures</p> <p>4.4 <b>Testing</b> of equipment and the <b>isolation of faults</b>, including the tagging and reporting of faulty equipment and components according to the workplace procedures and applicable <b>rules and regulation</b></p>
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Variable	Range
Work	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments</li> <li>• by day or night</li> </ul>
Workplaces	May comprise: <ul style="list-style-type: none"> <li>• large, medium or small worksites</li> </ul>
Work	May be conducted in: <ul style="list-style-type: none"> <li>• limited or restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> </ul>
Tests and the isolation of faults	May be performed: <ul style="list-style-type: none"> <li>• on a range of equipment used in the stevedoring, transport, warehousing, distribution and/or storage industries</li> </ul>
Personal protective equipment	May include: <ul style="list-style-type: none"> <li>• gloves</li> <li>• safety headwear and footwear</li> <li>• safety glasses</li> <li>• two-way radios</li> <li>• high visibility clothing</li> </ul>
Tests	May include but are not limited to: <ul style="list-style-type: none"> <li>• tests of operational performance</li> <li>• tests as part of routine servicing</li> <li>• identification of causes of poor or out-of-specification performance</li> <li>• tests following servicing and/or adjustment of equipment</li> </ul>
Records/results of tests	May include: <ul style="list-style-type: none"> <li>• details of faulty equipment or specific components</li> <li>• details of action taken</li> <li>• results of testing and associated recommendations</li> <li>• details of repair and maintenance work to be undertaken</li> </ul>
Depending on the type of organisation	May include: <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> </ul>

concerned and the local terminology used, workplace procedures	<ul style="list-style-type: none"> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• phone</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• RF communications</li> <li>• barcode readers</li> <li>• oral, aural or signed communications</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace procedures and policies for the checking and assessment of the equipment concerned</li> <li>• manufacturers specifications for equipment/tools</li> <li>• equipment identification labels, barcodes and serial numbers</li> <li>• supplier and/or client instructions</li> <li>• relevant OHS requirements and policies</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• material safety data sheets where applicable</li> <li>• codes of practice including the National Standards for Manual Handling and the Industry Safety Code</li> <li>• relevant legislation, regulations and related documentation including the EDG Code</li> <li>• award, enterprise bargaining agreement and other industrial arrangements</li> <li>• quality assurance procedures</li> <li>• emergency procedures</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant codes and regulations pertaining to the checking and operation of the equipment concerned</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> <li>• licence, patent or copyright arrangements</li> <li>• water and road use and licence arrangements</li> <li>• export/import/quarantine/bond requirements</li> <li>• workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation</li> <li>• workers compensation regulations</li> </ul>

<b>Evidence Guide</b>			
Critical Aspects of Competence	Demonstrates skills and knowledge in: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> <li>• Relevant sections of regulatory requirements applicable to the testing of equipment and the isolation of faults</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Workplace procedures and policies for the testing of equipment and the isolation of faults, including the tagging and reporting of faulty equipment and components</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for the testing of equipment and the isolation of faults</li> <li>• Fault-finding techniques including identification of cost/time effective rectification procedures</li> <li>• Tools, meters, gauges and equipment used during the testing of equipment and the isolation of faults and the precautions and procedures that should be followed in their use</li> <li>• Guidelines relating to the safe use of machinery and equipment including the tagging of unserviceable or damaged items</li> <li>• Faults that May occur with equipment, and appropriate action that can be taken to report and/or rectify the identified faults in the equipment or its components</li> <li>• The characteristics, capabilities and limitations of the equipment</li> <li>• Operational safety requirements for the equipment concerned</li> <li>• Housekeeping standards procedures required in the workplace</li> <li>• Site layout and obstacles</li> <li>• Documentation and record requirements</li> </ul>		
Underpinning Skills	Demonstrates skills to: <ul style="list-style-type: none"> <li>• Communicate effectively with others when testing equipment and isolating faults</li> <li>• Read and comprehend simple statements in English</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the testing of equipment and the isolation of faults</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the testing of</li> </ul>		
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	<p>equipment and the isolation of faults</p> <ul style="list-style-type: none"> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when testing equipment and isolating faults</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions that May occur when testing equipment and isolating faults in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unplanned events</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use relevant meters, gauges, equipment and tools when testing equipment and isolating faults</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> <li>• Apply basic mechanical, hydraulic, electrical and electronic principles to testing and fault identification activities</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting



Occupational Standard: Train Operation Level III	
Unit Title	Coordinate Breakdowns and Emergencies
Unit Code	<a href="#">EIS TRO3 10 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to coordinate breakdowns and emergencies, including evaluating the breakdown/emergency situation, consulting with relevant personnel/emergency authorities, coordinating activities at the breakdown/emergency site, and completing all required reports and documentation.

Elements	Performance Criteria
1. Evaluate breakdown and/or emergency situation	<p>1.1 Causes and effects of <b>breakdown/emergency situation</b> that can occur when driving a <b>vehicle</b> and <b>road transport situation</b> an appropriate action that can be taken in each case are identified and clarified</p> <p>1.2 <b>Emergency equipment</b> and coordination procedures are applied in accordance with workplace policies</p> <p>1.3 Assistance is rendered to injured persons within the limitations of duty of care and workplace requirements</p> <p>1.4 Load is identified and the nature of risks and hazards are established and communicated to the relevant authorities</p> <p>1.5 Appropriate precautions and action are taken where the load is identified as including dangerous goods, explosives or hazardous substances in accordance with the relevant <b>codes</b>, regulations and <b>applicable procedures</b></p>
2. Consult with relevant persons and authorities	<p>2.1 Details of causes and effects of <b>breakdown/emergency</b> are reported in accordance with <b>workplace procedures</b></p> <p>2.2 Assistance and consultative process is provided to relevant authorities within legal and workplace limitations</p> <p>2.3 <b>Information</b> about emergency is obtained and/or exchanged in accordance with legal and workplace requirements</p>
3. Coordinate breakdown and/or emergency situation	<p>3.1 Suitable measures are taken to control, warn, stop or divert traffic at breakdown/emergency site to <b>coordinate the break down emergency</b></p> <p>3.2 Personal security precautions are taken in accordance with workplace procedures</p> <p>3.3 <b>Consultative process</b> is requested to minimize the possibility of further damage to persons or property, in accordance with workplace policy and relevant rules and</p>

	<p>regulations</p> <p>3.4 Appropriate measures are taken to control and protect the site of breakdown/emergency</p> <p>3.5 Traffic at the site of a breakdown or emergency is controlled, if necessary, in accordance with regulatory requirements and <b>workplace procedures</b></p>
4. Complete documentation	4.1 All required <b>documentation</b> and reports on breakdown/emergency are completed in accordance with workplace requirements

Variable	Range
Type of vehicle	<p>May include:</p> <ul style="list-style-type: none"> <li>any commercial transport vehicle</li> </ul>
Breakdowns and emergencies May occur in a range of road transport situations,	<p>Including:</p> <ul style="list-style-type: none"> <li>operations conducted at day or night</li> <li>typical weather conditions</li> <li>on the open road</li> <li>on a private road</li> <li>while at a depot, base or warehouse</li> <li>while at a client's workplace or work site</li> </ul>
Type of breakdowns/emergencies	<p>May include:</p> <ul style="list-style-type: none"> <li>collision</li> <li>spillage of fuel or dangerous load</li> <li>tyre blow-outs</li> <li>fire or explosion</li> <li>engine failure</li> <li>broken axle</li> <li>bogged vehicle</li> <li>load shifts</li> <li>electrical failure,</li> <li>breakdown</li> <li>overturned vehicle</li> <li>accident involving another vehicle</li> </ul>
Emergency equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>first aid kit</li> <li>fire extinguishers</li> <li>warning signs and indicators</li> <li>mobile phone or radio</li> </ul>
Depending on the type and extent of the breakdown/emergency, the action to be taken to coordinate a breakdown/	<p>May include:</p> <ul style="list-style-type: none"> <li>identifying and following established breakdown/emergency procedures</li> <li>evaluating the cause and effects of the breakdown/emergency</li> <li>coordinating emergency procedures and rendering assistance and first aid if required</li> </ul>

emergency	<ul style="list-style-type: none"> <li>• contacting and cooperating with relevant emergency authorities as required</li> <li>• controlling traffic at the site of a breakdown or emergency</li> <li>• taking appropriate action to secure the breakdown/emergency situation</li> <li>• obtaining and recording information about the incident</li> <li>• reporting on breakdown/emergency situation in accordance with regulatory and workplace requirements</li> </ul>
Consultative processes	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace personnel and management</li> <li>• designated breakdown/emergency officers</li> <li>• Emergency services personnel including ambulance, police, fire services, etc.</li> <li>• union representatives</li> <li>• industrial relations and OHS specialists</li> <li>• other professional or technical staff</li> </ul>
Depending on the type of organisation concerned and the local terminology used, workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Information documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace instructions and procedures concerning breakdowns and emergencies</li> <li>• state/territory licence and permit requirements as they relate to breakdowns/emergencies</li> <li>• state/territory road rules</li> <li>• vehicle manufacturers instructions, specifications and recommended procedures</li> <li>• goods/materials identification numbers and codes, including IMDG markings and HAZCHEM signs</li> <li>• manifests, bar codes, goods and container identification</li> <li>• relevant codes of practice, including the Ethiopian Dangerous Goods Code, the Ethiopian Explosives Code, the Code of Practice for the Safe Transport of Radioactive Substances</li> <li>• workplace procedures and policies for the handling of dangerous goods, explosives and radioactive and other hazardous substances</li> <li>• vehicle log book or record book (where required)</li> <li>• relevant standards and certification requirements</li> <li>• quality assurance procedures</li> </ul>
Applicable procedures and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant state/territory roads and traffic authority driving regulations and licence/permit requirements pertaining to class of vehicle involved</li> <li>• relevant state/territory road rules</li> </ul>

	<ul style="list-style-type: none"> <li>• relevant state/territory permit regulations and requirements</li> <li>• relevant state/territory OHS legislation</li> <li>• Ethiopian Dangerous Goods Code</li> <li>• Ethiopian Explosives Code</li> <li>• relevant state/territory environmental protection legislation</li> <li>• Code of Practice for the Safe Transport of Radioactive Substances</li> <li>• state/territory legislation covering the safe handling of infectious substances</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> </ul> </li> </ul> <p>other relevant aspects of the range statement</p>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant road rules, regulations, permit and licence requirements of the relevant state/territory road traffic authority</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Duty of care requirements in a breakdown and/or emergency situation</li> <li>• Types of breakdowns and emergencies that can occur when driving a vehicle and appropriate action that can be taken in each case</li> <li>• Types of emergency equipment, their purpose, and the procedures for their use</li> <li>• Procedures to be followed in the event of a breakdown and/or emergency</li> <li>• Risks and hazards that can exist in breakdown/emergency situations and related precautions to control the risks</li> <li>• Characteristics of various dangerous goods/explosives/hazardous substances and their implications in breakdown/emergency situations</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when coordinating a response to a breakdown or emergency</li> <li>• Read and comprehend simple statements in English</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the coordination of a response to a</li> </ul>

	<p>breakdown or emergency</p> <ul style="list-style-type: none"> <li>• Identify containers and goods coding, IMDG markings and where applicable emergency information panels</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the coordination of a response to a breakdown or emergency</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when coordinating a response to a breakdown or emergency</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May arise when coordinating a response to a breakdown or emergency in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated events that May occur when coordinating a response to a breakdown or emergency</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Control traffic at the site of a breakdown or emergency</li> <li>• Identify and correctly use emergency equipment at the site of a breakdown or emergency</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level III	
Unit Title	Test Train Braking System
Unit Code	<a href="#">EIS TRO3 17 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to test a train braking system in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes planning and preparing for, and testing train brake operation; dealing with identified faults; and recording the results of a brake test in accordance with workplace requirements.

Elements	Performance Criteria
1. Plan and prepare for train brake inspection and testing	<p>1.1 Brake test documentation, rolling stock data and other relevant reports are read to confirm required <b>operation</b></p> <p>1.2 If required, appropriate tools and equipment are obtained and checked prior to inspection and <b>tests</b></p> <p>1.3 OHS <b>legislation</b>, codes of practice, policies and procedures are identified and followed</p> <p>1.4 <b>Location for test</b> of the train is scheduled and secured in accordance with <b>workplace procedures</b> to make the work area safe for the inspection</p>
2. Inspect and test train brake operation	<p>2.1 Brake leakage test is conducted to ensure compliance with required standards</p> <p>2.2 Modified brake tests are conducted to ensure compliance with required standards</p> <p>2.3 Air continuity test is conducted to ensure train braking system meets functional specifications</p> <p>2.4 Brakes are applied and released to ensure train braking system meets functional specifications</p> <p>2.5 Hoses and pipe components are inspected for defects requiring repair or replacement</p> <p>2.6 Defects and faults are identified and rolling stock is carded</p>
3. Deal with identified faults	<p>3.1 Plans and/or procedures for replacement or repair of identified defective components are implemented in accordance with workplace procedures and manufacturers specifications</p> <p>3.2 Confirmation/verification of minor repairs or replacements is obtained</p> <p>3.3 Defective rolling stock not fit to run is identified and</p>

	<p>detachment arrangements are made in compliance with workplace procedures</p> <p>3.4 <b>Safety and protective equipment</b> conforming to industry and OHS standards is used</p>
4. Record test results	<p>4.1 Brake test records are completed to reflect inspection results in accordance with workplace policies and procedures</p> <p>4.2 Records are circulated and filed in accordance with workplace policies and procedures</p>

Variable	Range
Operations	<p>Conducted by day or night in:</p> <ul style="list-style-type: none"> <li>• all weather conditions</li> <li>• the full range of light conditions</li> <li>• typical running temperatures of trains</li> </ul>
Tests	<p>May include:</p> <ul style="list-style-type: none"> <li>• brake leakage test</li> <li>• air continuity test</li> <li>• modified brake test</li> <li>• train brake test</li> <li>• hose and pipe components repair or replacement</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• relevant state/territory OHS legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
Locations for tests	<p>May include:</p> <ul style="list-style-type: none"> <li>• heavy traffic</li> <li>• high volume city freight terminals</li> <li>• passenger yards or sidings</li> <li>• station platforms</li> <li>• remote regional yard and siding locations</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Safety and protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• high visibility clothing</li> <li>• end of train markers</li> <li>• gloves</li> <li>• sunscreen</li> <li>• sunglasses</li> </ul>

	<ul style="list-style-type: none"> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear</li> <li>• safety footwear</li> <li>• portable radios/mobile phones</li> <li>• hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• hearing protection</li> </ul>
Movement status of rolling stock to be tested	<p>May include:</p> <ul style="list-style-type: none"> <li>• arriving</li> <li>• departing</li> <li>• stationary</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace procedures and instructions and job specification</li> <li>• manufacturers specifications and standards</li> <li>• brake inspection and testing documentation</li> <li>• safe working documentation</li> <li>• brake test certification</li> <li>• equipment operations manuals</li> <li>• conditions of service, legislation and industrial</li> <li>• agreement including workplace agreements and awards</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• conducting inspections and testing of brake operations on all relevant types of passenger train, freight train or railcar</li> <li>• identifying defects and faults in train braking systems</li> <li>• implementing workplace procedures to deal with identified defects and faults</li> </ul> </li> </ul> <p>completing records of test results in accordance with workplace procedures</p>		
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations including codes of practice for manual handling</li> <li>• Brake systems, their components and their operation</li> <li>• Types of brake tests and their purpose</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Tools and equipment applications</li> <li>• Diagnostic techniques</li> <li>• Communication protocols</li> <li>• Documentation requirements relating to brake testing</li> </ul> <p>Procedures for completing relevant documentation</p>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when testing a train braking system</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the testing of a train braking system</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the testing of a train braking system</li> <li>• Work collaboratively with others when testing a train braking system</li> <li>• Promptly report any identified problems, faults or malfunctions when testing a train braking system in accordance with regulatory requirements and workplace procedures</li> <li>• Apply rail safety practices and regulations</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Assess brake system defects</li> <li>• Operate and adapt to differences in brakes and related equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard : Train Operation Level III	
Unit Title	Apply Quality Control
Unit Code	<a href="#">EIS TRO3 18 0313</a>
Unit Descriptor	This unit covers the knowledge, attitudes and skills required in applying quality control in the workplace.

Elements	Performance Criteria
1. Implement quality standards	<p>1.1 Agreed quality standard and procedures are acquired and confirmed.</p> <p>1.2 Standard procedures are introduced to organizational staff/personnel.</p> <p>1.3 Quality standard and procedures documents are provided to employees in accordance with the organization policy.</p> <p>1.4 Standard procedures are revised / updated when necessary.</p>
2. Assess quality of service delivered	<p>2.1 Services delivered are <b>quality checked</b> against organization <b>quality standards</b> and specifications.</p> <p>2.2 Service delivered are evaluated using the appropriate evaluation <b>quality parameters</b> and in accordance with organization standards.</p> <p>2.3 Causes of any identified faults are identified and corrective actions are taken in accordance with organization policies and procedures.</p>
3. Record information	<p>3.1 Basic information on the quality performance is recorded in accordance with organization procedures.</p> <p>3.2 Records of work quality are maintained according to the requirements of the organization.</p>
4. Study causes of quality deviations	<p>4.1 Causes of deviations from final outputs or services are investigated and reported in accordance with organization procedures.</p> <p>4.2 Suitable preventive action is recommended based on organization quality standards and identified causes of deviation from specified quality standards of final service or output.</p>
5. Complete documentation	<p>5.1 Information on quality and other indicators of service performance is recorded.</p> <p>5.2 All service processes and outcomes are recorded.</p>

Variable	Range
Quality check	May include but not limited to: <ul style="list-style-type: none"> <li>• Check against design / specifications</li> <li>• Visual inspection and Physical inspection</li> </ul>
Quality standards	May include but not limited to: <ul style="list-style-type: none"> <li>• Materials</li> <li>• Components</li> <li>• Process</li> <li>• Procedures</li> </ul>
Quality parameters	May include but not limited to: <ul style="list-style-type: none"> <li>• Standard Design / Specifications</li> <li>• Material Specification</li> </ul>

Evidence Guide	
Critical Aspects of Competence	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> <li>• Checked completed work continuously against organization standard</li> <li>• Identified and isolated faulty or poor service</li> <li>• Checked service delivered against organization standards</li> <li>• Identified and applied corrective actions on the causes of identified faults or error</li> <li>• Recorded basic information regarding quality performance</li> <li>• Investigated causes of deviations of services against standard</li> <li>• Recommended suitable preventive actions</li> </ul>
Underpinning Knowledge	Demonstrates knowledge of: <ul style="list-style-type: none"> <li>• Relevant quality standards, policies and procedures</li> <li>• Characteristics of services</li> <li>• Safety environment aspects of service processes</li> <li>• Evaluation techniques and quality checking procedures</li> <li>• Workplace procedures and reporting procedures</li> </ul>
Underpinning Skills	Demonstrates skills to: <ul style="list-style-type: none"> <li>• interpret work instructions, specifications and standards appropriate to the required work or service</li> <li>• carry out relevant performance evaluation</li> <li>• maintain accurate work records</li> <li>• meet work specifications and requirements</li> <li>• communicate effectively within defined workplace procedures</li> </ul>
Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>

Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.
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Occupational Standard: Train Operation Level III	
<b>Unit Title</b>	<b>Lead Workplace Communication</b>
<b>Unit Code</b>	<a href="#">EIS TRO3 19 0313</a>
<b>Unit Descriptor</b>	This unit covers the knowledge, attitudes and skills needed to lead in the dissemination and discussion of information and issues in the workplace.

Elements	Performance Criteria
1. Communicate information about workplace processes	1.1 Appropriate <b>communication method</b> is selected 1.2 Multiple operations involving several topics areas are communicated accordingly 1.3 Questions are used to gain extra information 1.4 Correct sources of information are identified 1.5 Information is selected and organized correctly 1.6 Verbal and written reporting is undertaken when required 1.7 Communication skills are maintained in all situations
2. Lead workplace discussion	2.1 Response to workplace issues are sought 2.2 Response to workplace issues are provided immediately 2.3 Constructive contributions are made to workplace discussions on such issues as production, quality and safety 2.4 Goals/objectives and action plan undertaken in the workplace are communicated.
3. Identify and communicate issues arising in the workplace	3.1 Issues and problems are identified as they arise 3.2 Information regarding problems and issues are organized coherently to ensure clear and effective communication 3.3 Dialogue is initiated with appropriate staff/personnel 3.4 Communication problems and issues are raised as they arise

Variable	Range
Methods of communication	May include but not limited to: <ul style="list-style-type: none"> <li>• Non-verbal gestures</li> <li>• Verbal</li> <li>• Face to face</li> <li>• Two-way radio</li> <li>• Speaking to groups</li> <li>• Using telephone</li> </ul>

	<ul style="list-style-type: none"> <li>• Written</li> <li>• Using Internet</li> <li>• Cell phone</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	Demonstrates skills and knowledge to: <ul style="list-style-type: none"> <li>• Dealt with a range of communication/information at one time</li> <li>• Made constructive contributions in workplace issues</li> <li>• Sought workplace issues effectively</li> <li>• Responded to workplace issues promptly</li> <li>• Presented information clearly and effectively written form</li> <li>• Used appropriate sources of information</li> <li>• Asked appropriate questions</li> <li>• Provided accurate information</li> </ul>
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> <li>• Organization requirements for written and electronic communication methods</li> <li>• Effective verbal communication methods</li> </ul>
Underpinning Skills	Demonstrates skills to: <ul style="list-style-type: none"> <li>• Organize information</li> <li>• Understand and convey intended meaning</li> <li>• Participate in variety of workplace discussions</li> <li>• Comply with organization requirements for the use of written and electronic communication methods</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level III	
Unit Title	Lead Small Teams
Unit Code	<a href="#">EIS TRO3 20 0313</a>
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to determine individual and team development needs and facilitate the development of the work group.

Elements	Performance Criteria
1. Provide team leadership	<p>1.1 <b>Learning and development needs</b> are systematically identified and implemented in line with <b>organizational requirements</b></p> <p>1.2 Learning plan to meet individual and group training and developmental needs is collaboratively developed and implemented</p> <p>1.3 Individuals are encouraged to self-evaluate performance and identify areas for improvement</p> <p>1.4 <b>Feedback on performance</b> of team members is collected from relevant sources and compared with established team learning process</p>
2. Foster individual and organizational growth	<p>2.1 Learning and development program goals and objectives are identified to match the specific knowledge and skills requirements of Competence standards</p> <p>2.2 <b>Learning delivery methods</b> are appropriate to the learning goals, the learning style of participants and availability of equipment and resources</p> <p>2.3 Workplace learning opportunities and coaching/mentoring assistance are provided to facilitate individual and team achievement of competencies</p> <p>2.4 Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements</p>
3. Monitor and evaluate workplace learning	<p>3.1 Feedback from individuals or teams is used to identify and implement improvements in future learning arrangements</p> <p>3.2 Outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support</p> <p>3.3 Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning</p> <p>3.4 Records and reports of Competence are maintained</p>

	within organizational requirement
4. Develop team commitment and cooperation	<p>4.1 Open communication processes to obtain and share information is used by team</p> <p>4.2 Decisions are reached by the team in accordance with its agreed roles and responsibilities</p> <p>4.3 Mutual concern and camaraderie are developed in the team</p>
5. Facilitate accomplishment of organizational goals	<p>5.1 Team members actively participated in team activities and communication processes</p> <p>5.2 Teams members developed individual and joint responsibility for their actions</p> <p>5.3 Collaborative efforts are sustained to attain organizational goals</p>

Variable	Range
Learning and development needs	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Coaching, mentoring and/or supervision</li> <li>• Formal/informal learning program</li> <li>• Internal/external training provision</li> <li>• Work experience/exchange/opportunities</li> <li>• Personal study</li> <li>• Career planning/development</li> <li>• Performance appraisals</li> <li>• Workplace skills assessment</li> <li>• Recognition of prior learning</li> </ul>
Organizational requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Quality assurance and/or procedures manuals</li> <li>• Goals, objectives, plans, systems and processes</li> <li>• Legal and organizational policy/guidelines and requirements</li> <li>• Safety policies, procedures and programs</li> <li>• Confidentiality and security requirements</li> <li>• Business and performance plans</li> <li>• Ethical standards</li> <li>• Quality and continuous improvement processes and standards</li> </ul>
Feedback on performance	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Formal/informal performance appraisals</li> <li>• Obtaining feedback from supervisors and colleagues</li> <li>• Obtaining feedback from clients</li> <li>• Personal and reflective behaviour strategies</li> <li>• Routine and organizational methods for monitoring service delivery</li> </ul>
Learning delivery	May include but not limited to:



methods	<ul style="list-style-type: none"> <li>• On the job coaching or mentoring</li> <li>• Problem solving</li> <li>• Presentation/demonstration</li> <li>• Formal course participation</li> <li>• Work experience and Involvement in professional networks</li> <li>• Conference/seminar attendance and induction</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• identified and implemented learning opportunities for others</li> <li>• gave and received feedback constructively</li> <li>• facilitated participation of individuals in the work of the team</li> <li>• negotiated learning plans to improve the effectiveness of learning</li> <li>• prepared learning plans to match skill needs</li> <li>• accessed and designated learning opportunities</li> </ul>
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• coaching and mentoring principles</li> <li>• understanding how to work effectively with team members who have diverse work styles, aspirations, cultures and perspective</li> <li>• understanding how to facilitate team development and improvement</li> <li>• understanding methods and techniques for eliciting and interpreting feedback</li> <li>• understanding methods for identifying and prioritizing personal development opportunities and options</li> <li>• knowledge of career paths and competence standards in the industry</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• ability to read and understand a variety of texts, prepare general information and documents according to target audience; spell with accuracy; use grammar and punctuation effectively</li> <li>• communication skills including receiving feedback and reporting, maintaining effective relationships and conflict management</li> <li>• planning skills to organize required resources and equipment to meet learning needs</li> <li>• coaching and mentoring skills to provide support to colleagues</li> <li>• reporting skills to organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes</li> <li>• facilitation skills to conduct small group training sessions</li> <li>• ability to relate to people from a range of social, cultural, physical and mental backgrounds</li> </ul>

Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written exam</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the workplace or in a simulated workplace setting

Occupational Standard: Railway operation Level III	
Unit Title	Improve Business Practice
Unit Code	<a href="#">EIS TRO3 21 0313</a>
Unit Descriptor	This unit covers the skills, knowledge and attitudes required in promoting, improving and growing business operations.

Elements	Performance Criteria
1. Diagnose the business	1.1 <b>Data required</b> for diagnosis is determined and acquired. 1.2 <b>Competitive advantage</b> of the business is determined from the data. 1.3 <b>SWOT analysis</b> of the data is undertaken.
2. Benchmark the business	2.1 Sources of relevant benchmarking data are identified. 2.2 <b>Key indicators</b> for benchmarking are selected in consultation with key stakeholders. 2.3 Like indicators of own practice are compared with benchmark indicators. 2.4 Areas for improvement are identified.
3. Develop plans to improve business performance	3.1 A consolidated list of required improvements is developed. 3.2 Cost-benefit ratios for required improvements are determined. 3.3 Work flow changes resulting from proposed improvements are determined. 3.4 Proposed improvements are ranked according to agreed criteria. 3.5 An action plan is developed and agreed to implement the top ranked improvements. 3.6 <b>Organizational structures</b> are checked to ensure they are suitable.
4. Develop marketing and promotional plans	4.1 The practice vision statement is reviewed. 4.2 Practice <b>objectives</b> are developed/ reviewed. 4.3 Target markets are identified/ refined. 4.4 <b>Market research data</b> is obtained. 4.5 <b>Competitor analysis</b> is obtained. 4.6 <b>Market position</b> is developed/ reviewed. 4.7 <b>Practice brand</b> is developed. 4.8 <b>Benefits</b> of practice/practice products/services are

	<p>identified.</p> <p>4.9 <b>Promotion tools</b> are selected/ developed.</p>
5. Develop business growth plans	<p>5.1 Plans are developed to increase <b>yield per existing client</b>.</p> <p>5.2 Plans are developed to add new clients.</p> <p>5.3 Proposed plans are ranked according to agreed criteria.</p> <p>5.4 An action plan is developed and agreed to implement the top ranked plans.</p> <p>5.5 Practice work practices are reviewed to ensure they support growth plans.</p>
6. Implement and monitor plans	<p>6.1 Implementation plan is developed in consultation with all relevant stakeholders.</p> <p>6.2 Indicators of success of the plan are agreed.</p> <p>6.3 Implementation is monitored against agreed indicators.</p> <p>6.4 Implementation is adjusted as required.</p>

Variable	Range
Data	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• organization capability</li> <li>• appropriate business structure</li> <li>• level of client service which can be provided</li> <li>• internal policies, procedures and practices</li> <li>• staff levels, capabilities and structure</li> <li>• market, market definition</li> <li>• market changes/market segmentation</li> <li>• market consolidation/fragmentation</li> <li>• revenue</li> <li>• level of commercial activity</li> <li>• expected revenue levels, short and long term</li> <li>• revenue growth rate</li> <li>• break even data</li> <li>• pricing policy</li> <li>• revenue assumptions</li> <li>• business environment</li> <li>• economic conditions</li> <li>• social factors</li> <li>• demographic factors</li> <li>• technological impacts</li> <li>• political/legislative/regulative impacts</li> <li>• competitors, competitor pricing and response to pricing</li> <li>• competitor marketing/branding</li> <li>• competitor products</li> </ul>

Competitive advantage	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• services/products</li> <li>• fees</li> <li>• location</li> <li>• timeframe</li> </ul>
SWOT analysis	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• internal strengths such as staff capability, recognized quality</li> <li>• internal weaknesses such as poor morale, under-capitalization, poor technology</li> <li>• external opportunities such as changing market and economic conditions</li> <li>• external threats such as industry fee structures, strategic alliances, competitor marketing</li> </ul>
Key indicators	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• salary cost and staffing</li> <li>• personnel productivity (particularly of principals)</li> <li>• profitability</li> <li>• fee structure</li> <li>• client base</li> <li>• size staff/principal</li> <li>• overhead/overhead control</li> </ul>
Organizational structures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Legal structure (partnership, Limited Liability Company, etc.)</li> <li>• organizational structure/hierarchy</li> <li>• reward schemes</li> </ul>
Objectives should be 'SMART' ,	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• S: Specific</li> <li>• M: Measurable</li> <li>• A: Achievable</li> <li>• R: Realistic</li> <li>• T: Time defined</li> </ul>
Market research data	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• data about existing clients</li> <li>• data about possible new clients</li> <li>• data from internal sources</li> <li>• data from external sources such as: <ul style="list-style-type: none"> <li>➤ trade associations/journals</li> <li>➤ Yellow Pages small business surveys</li> <li>➤ libraries</li> <li>➤ Internet</li> <li>➤ Chamber of Commerce</li> <li>➤ client surveys</li> <li>➤ industry reports</li> <li>➤ secondary market research</li> </ul> </li> <li>• primary market research such as:</li> </ul>

	<ul style="list-style-type: none"> <li>➤ telephone surveys</li> <li>➤ personal interviews</li> <li>➤ mail surveys</li> </ul>
Competitor analysis	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• competitor offerings</li> <li>• competitor promotion strategies and activities</li> <li>• competitor profile in the market place</li> </ul>
Market position	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• product</li> <li>• the good or service provided</li> <li>• product mix</li> <li>• the core product - what is bought</li> <li>• the tangible product - what is perceived</li> <li>• the augmented product - total package of consumer</li> <li>• features/benefits</li> <li>• product differentiation from competitive products</li> <li>• new/changed products</li> <li>• Price and pricing strategies (cost plus, supply/demand, ability to pay, etc.)</li> <li>• Pricing objectives (profit, market penetration, etc.)</li> <li>• cost components</li> <li>• market position</li> <li>• distribution strategies</li> <li>• marketing channels</li> <li>• promotion</li> <li>• promotional strategies</li> <li>• target audience</li> <li>• communication</li> <li>• promotion budget</li> </ul>
Practice brand	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• practice image</li> <li>• practice logo/letter head/signage</li> <li>• phone answering protocol</li> <li>• facility decor</li> <li>• slogans</li> <li>• templates for communication/invoicing</li> <li>• style guide</li> <li>• writing style</li> <li>• AIDA (attention, interest, desire, action)</li> </ul>
Benefits May include:	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• features as perceived by the client</li> <li>• benefits as perceived by the client</li> </ul>
Promotion tools include:	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• networking and referrals</li> <li>• seminars</li> <li>• advertising</li> <li>• press releases</li> </ul>

	<ul style="list-style-type: none"> <li>• publicity and sponsorship</li> <li>• brochures</li> <li>• newsletters (print and/or electronic)</li> <li>• websites</li> <li>• direct mail</li> <li>• telemarketing/cold calling</li> </ul>
Yield per existing client May be increased by:	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• raising charge out rates/fees</li> <li>• packaging fees</li> <li>• reduce discounts</li> <li>• sell more services to existing clients</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• ability to identify the key indicators of business performance</li> <li>• ability to identify the key market data for the business</li> <li>• knowledge of a wide range of available information sources</li> <li>• ability to acquire information not readily available within a business</li> <li>• ability to analyze data and determine areas of improvement</li> <li>• ability to negotiate required improvements to ensure implementation</li> <li>• ability to evaluate systems against practice requirements</li> <li>• and form recommendations and/or make recommendations</li> <li>• ability to assess the accuracy and relevance of information</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• data analysis</li> <li>• communication skills</li> <li>• computer skills to manipulate data and present information</li> <li>• negotiation skills</li> <li>• problem solving</li> <li>• planning skills</li> <li>• marketing principles</li> <li>• ability to acquire and interpret relevant data</li> <li>• current product and marketing mix</li> <li>• use of market intelligence</li> <li>• development and implementation strategies of promotion and growth plans</li> </ul>
Underpinning Skills	<p>Demonstrates skill in:</p> <ul style="list-style-type: none"> <li>• data analysis and manipulation</li> <li>• ability to acquire and interpret required data, current practice systems and structures and sources of relevant benchmarking data</li> <li>• applying methods of selecting relevant key benchmarking indicators</li> <li>• communication skills</li> <li>• working and consulting with others when developing plans</li> </ul>

	<p>for the business</p> <ul style="list-style-type: none"> <li>• planning skills, negotiation skills and problem solving</li> <li>• using computers to manipulate, present and distribute information</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.



Occupational Standard: Railway operation Level III	
Unit Title	Monitor Implementation of Work Plan/Activities
Unit Code	<a href="#">EIS TRO3 22 0313</a>
Unit Descriptor	This unit covers competence required to oversee and monitor the quality of work operations within an enterprise. This unit May be carried out by team leaders or supervisors.

Elements	Performance Criteria
1. Monitor and improve workplace operations	<p>1.1 Efficiency and service levels are monitored on an ongoing basis.</p> <p>1.2 Operations in the workplace support overall enterprise goals and quality assurance initiatives.</p> <p>1.3 Quality <b>problems</b> and issues are promptly identified and adjustments are made accordingly.</p> <p>1.4 Procedures and systems are changed in consultation with colleagues to improve efficiency and effectiveness.</p> <p>1.5 Colleagues are consulted about ways to improve efficiency and service levels.</p>
2. Plan and organise workflow	<p>2.1 Current workload of colleagues is accurately assessed.</p> <p>2.2 Work is scheduled in a manner which enhances efficiency and customer service quality.</p> <p>2.3 Work is delegated to appropriate people in accordance with principles of delegation.</p> <p>2.4 Workflow is assessed against agreed objectives and timelines and colleagues are assisted in prioritisation of workload.</p> <p>2.5 Input is provided to appropriate management regarding staffing needs.</p>
3. Maintain workplace records	<p>3.1 <b>Workplace records</b> are accurately completed and submitted within required timeframes.</p> <p>3.2 Where appropriate completion of records is delegated and monitored prior to submission.</p>
4. Solve problems and make decisions	<p>4.1 Workplace problems are promptly identified and considered from an operational and customer service perspective.</p> <p>4.2 Short term action is initiated to resolve the immediate problem where appropriate.</p> <p>4.3 Problems are analysed for any long term impact and potential solutions are assessed and actioned in consultation with relevant colleagues.</p> <p>4.4 Where problem is raised by a team member, they are</p>

	<p>encouraged to participate in solving the problem.</p> <p>4.5 Follow up action is taken to monitor the effectiveness of solutions in the workplace.</p>
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Variables	Range
Problems	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• difficult customer service situations</li> <li>• equipment breakdown/technical failure</li> <li>• delays and time difficulties</li> <li>• competence</li> </ul>
Workplace records	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• staff records and regular performance reports</li> </ul>

Evidence Guide	
Critical Aspects of Competence	<p>Assessment must confirm appropriate knowledge and skills to:</p> <ul style="list-style-type: none"> <li>• ability to effectively monitor and respond to a range of common operational and service issues in the workplace</li> <li>• understanding of the role of staff involved in workplace monitoring</li> <li>• knowledge of quality assurance, principles of workflow planning, delegation and problem solving</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• roles and responsibilities in monitoring work operations</li> <li>• overview of leadership and management responsibilities</li> <li>• principles of work planning and principles of delegation</li> <li>• typical work organization methods appropriate to the sector</li> <li>• quality assurance principles and time management</li> <li>• problem solving and decision making processes</li> <li>• industrial and/or legislative issues which affect short term work organization as appropriate to industry sector</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• monitoring and improving workplace operations</li> <li>• planning and organizing workflow</li> <li>• maintaining workplace records</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Railway operation Level III	
Unit Title	Prevent and Eliminate MUDA
Unit Code	<a href="#">EIS TRO3 23 0313</a>
Unit Descriptor	This unit of competence covers the knowledge, skills and attitude required by a worker to prevent and eliminate MUDA/wastes in his/her their workplace. It covers responsibility for the day-to-day operation of the work and ensures Kaizen elements are continuously improved and institutionalized.

Elements	Performance Criteria
1. Prepare for work.	<p>1.1 Work instructions are used to determine job requirements, including method, material and equipment.</p> <p>1.2 Job specifications are read and interpreted following working manual.</p> <p>1.3 <b>OHS requirements</b>, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.</p> <p>1.4 Appropriate material is selected for work.</p> <p>1.5 <b>Safety equipment and tools</b> are identified and checked for safe and effective operation.</p>
2. Identify MUDA.	<p>2.1 Plan of MUDA identification is prepared and implemented.</p> <p>2.2 Causes and effects of MUDA are discussed.</p> <p>2.3 <b>Tools and techniques</b> are used to draw and analyze current situation of the work place.</p> <p>2.4 Wastes/MUDA are identified and measured based on <b>relevant procedures</b>.</p> <p>2.5 Identified and measured wastes are reported to relevant personnel.</p>
3. Eliminate wastes/MUDA.	<p>3. 1. Plan of MUDA elimination is prepared and implemented.</p> <p>3. 2. Necessary attitude and <b>the ten basic principles for improvement</b> are adopted to eliminate waste/MUDA.</p> <p>3. 3. Tools and techniques are used to eliminate wastes/MUDA based on the procedures and OHS.</p> <p>3. 4. Wastes/MUDA are reduced and eliminated in accordance with OHS and organizational requirements.</p> <p>3. 5. Improvements gained by elimination of waste/MUDA are reported to relevant bodies.</p>

<p>4. Prevent occurrence of wastes/MUDA.</p>	<p>4.1 Plan of MUDA prevention is prepared and implemented.</p> <p>4.2 Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement are discussed and prepared.</p> <p>4.3 Occurrences of wastes/MUDA are prevented by using <b>visual and auditory control methods</b>.</p> <p>4.4 Waste-free workplace is created using <b>5W and 1H</b> sheet.</p> <p>4.5 The completion of required operation is done in accordance with standard procedures and practices.</p> <p>4.6 The updating of standard procedures and practices is facilitated.</p> <p>4.7 The capability of the work team that aligns with the requirements of the procedure is ensured.</p>
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Variable	Range
OHS requirements	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Are to be in accordance with legislation/ regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances.</li> <li>• Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices.</li> <li>• Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with workplace organization.</li> <li>• Emergency procedures related to this unit are to include but may not be limited to emergency shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and site evacuation.</li> </ul>
Safety equipment and tools	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• dust masks / goggles</li> <li>• glove</li> <li>• working cloth</li> <li>• first aid</li> <li>• safety shoes</li> </ul>
Tools and techniques	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Plant Layout</li> <li>• Process flow</li> <li>• Other Analysis tools</li> <li>• Do time study by work element</li> </ul>

	<ul style="list-style-type: none"> <li>• Measure Travel distance</li> <li>• Take a photo of workplace</li> <li>• Measure Total steps</li> <li>• Make list of items/products, who produces them and who uses them &amp; those in warehouses, storages etc.</li> <li>• Focal points to Check and find out existing problems</li> <li>• 5S</li> <li>• Layout improvement</li> <li>• Brainstorming</li> <li>• Andon</li> <li>• U-line</li> <li>• In-lining</li> <li>• Unification</li> <li>• Multi-process handling &amp; Multi-skilled operators</li> <li>• A.B. control (Two point control)</li> <li>• Cell production line</li> <li>• TPM (Total Productive Maintenance)</li> </ul>
Relevant procedures	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Make waste visible</li> <li>• Be conscious of the waste</li> <li>• Be accountable for the waste.</li> <li>• Measure the waste.</li> </ul>
The ten basic principles for improvement	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Throw out all of your fixed ideas about how to do things.</li> <li>• Think of how the new method will work- not how it won.</li> <li>• Don't accept excuses. Totally deny the status quo.</li> <li>• Don't seek perfection. A 50 percent implementation rate is fine as long as it's done on the spot.</li> <li>• Correct mistakes the moment they are found.</li> <li>• Don't spend a lot of money on improvements.</li> <li>• Problems give you a chance to use your brain.</li> <li>• Ask "why?" At least five times until you find the ultimate cause.</li> <li>• Ten people's ideas are better than one person's.</li> <li>• Improvement knows no limits.</li> </ul>
Visual and auditory control methods	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Red Tagging</li> <li>• Sign boards</li> <li>• Outlining</li> <li>• Andons</li> <li>• Kanban, etc.</li> </ul>
5W and 1H	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Who</li> <li>• What</li> <li>• Where</li> <li>• When</li> <li>• Why</li> </ul>

	<ul style="list-style-type: none"> <li>• How</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	Demonstrates skills and knowledge to: <ul style="list-style-type: none"> <li>• discuss why wastes occur in the workplace</li> <li>• discuss causes and effects of wastes/MUDA in the workplace</li> <li>• analyze the current situation of the workplace by using appropriate tools and techniques</li> <li>• identify, measure, eliminate and prevent occurrence of wastes by using appropriate tools and techniques</li> <li>• use 5W and 1H sheet to prevent</li> </ul>
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> <li>• Targets of customers and manufacturer/service provider</li> <li>• Traditional and kaizen thinking of price setting</li> <li>• Kaizen thinking in relation to targets of manufacturer/service provider and customer</li> <li>• value</li> <li>• The three categories of operations</li> <li>• the 3“MU”</li> <li>• waste/MUDA</li> <li>• wastes occur in the workplace</li> <li>• The 7 types of MUDA</li> <li>• The Benefits of identifying and eliminating waste</li> <li>• Causes and effects of 7 MUDA</li> <li>• Procedures to identify MUDA</li> <li>• Necessary attitude and the ten basic principles for improvement</li> <li>• Procedures to eliminate MUDA</li> <li>• Prevention of wastes</li> <li>• Methods of waste prevention</li> <li>• Definition and purpose of standardization</li> <li>• Standards required for machines, operations, defining normal and abnormal conditions, clerical procedures and procurement</li> <li>• Methods of visual and auditory control</li> <li>• TPM concept and its pillars.</li> <li>• Relevant Occupational Health and Safety (OHS) and environment requirements</li> <li>• Plan and report</li> <li>• Method of communication</li> </ul>
Underpinning Skills	Demonstrates skills to: <ul style="list-style-type: none"> <li>• draw &amp; analyze current situation of the work place</li> <li>• use measurement apparatus (stop watch, tape, etc.)</li> <li>• calculate volume and area</li> <li>• use and follow checklists to identify, measure and eliminate wastes/MUDA</li> <li>• identify and measure wastes/MUDA in accordance with</li> </ul>

	<p>OHS and procedures</p> <ul style="list-style-type: none"> <li>• use tools and techniques to eliminate wastes/MUDA in accordance with OHS procedure</li> <li>• apply 5W and 1H sheet</li> <li>• update and use standard procedures for completion of required operation</li> <li>• work with others</li> <li>• read and interpret documents</li> <li>• observe situations</li> <li>• solve problems</li> <li>• communicate</li> <li>• gather evidence by using different means</li> <li>• report activities and results using report formats</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence may be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

## NTQF Level IV



Occupational Standard: Train Operation Level VI	
Unit Title	Check and Evaluate Records and Documentation
Unit Code	<a href="#">EIS TRO4 01.0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to check and evaluate records and documentation in accordance with regulatory and workplace requirements including checking documentation and analysing and evaluating records.

Elements	Performance Criteria
1. Check documentation	<p>1.1 Documentation is checked to ensure its compliance with regulatory and workplace requirements</p> <p>1.2 Documentation is checked on a regular basis, and the <b>personnel</b> responsible for documentation are advised of deadlines in the <b>work place</b></p> <p>1.3 Use of systems for the maintenance of records complies with regulatory and workplace requirements</p> <p>1.4 When checking and evaluating transport documentation <b>work</b> is done collaboratively with others</p> <p>1.5 Types of <b>cargo/freight</b> , containers and transport modes are identified according the <b>work place procedure</b></p> <p>1.6 Effectively <b>communication</b> with others when checking and evaluating transport documentation</p>
2. Analyze and evaluate records	<p>2.1 Records are analyzed to identify unexpected deviations from plans or possible future problems with plant and equipment</p> <p>2.2 Advice is provided to appropriate personnel when problems are identified</p> <p>2.3 Security of records and <b>documentation</b> is maintained at all times with access being granted to authorized personnel in accordance with workplace procedures</p>

Variable	Range
Personnel in work area	May include: <ul style="list-style-type: none"> <li>workplace personnel</li> <li>site visitors</li> <li>contractors</li> <li>official representatives</li> </ul>
Workplaces	May comprise: <ul style="list-style-type: none"> <li>large, medium or small worksites</li> </ul>
Work	May be conducted in:

	<ul style="list-style-type: none"> <li>• a range of work environments</li> <li>• by day or night</li> <li>• limited or restricted spaces</li> <li>• exposed conditions</li> <li>• controlled or open environments</li> <li>• office environments</li> </ul>
Cargo/freight	<p>May include:</p> <ul style="list-style-type: none"> <li>• goods with specialist requirements, including temperature controlled goods and dangerous goods</li> </ul>
workplace procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• phone</li> <li>• fax</li> <li>• email</li> <li>• electronic data transfer (EDI)</li> <li>• RF systems</li> <li>• radio</li> <li>• oral, aural or signed communications</li> </ul>
Information/documents	<p>May include:</p> <ul style="list-style-type: none"> <li>• goods identification numbers and codes</li> <li>• manifests, bar codes, and container identification/serial number</li> <li>• Ethiopian regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances</li> <li>• operations manuals, job specifications and induction documentation</li> <li>• manufacturers specifications for equipment</li> <li>• workplace procedures and policies</li> <li>• supplier and/or client instructions</li> <li>• dangerous goods declarations and material safety data sheets</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant standards, codes and regulations relevant to the documentation requirements for the local and international transport of cargo and containers</li> <li>• Ethiopian codes of practice for the handling and transport of dangerous goods and hazardous substances, including:</li> <li>• workplace relations regulations</li> <li>• workers compensation regulations</li> </ul>

Evidence Guide			
Critical Aspects of Competence	Demonstrates skills and knowledge in: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>		
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> <li>• Ethiopian standards, codes and regulations relevant to the documentation requirements for the local and international transport of cargo and containers including the Ethiopian and International Dangerous Goods Codes</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Workplace procedures and policies for checking and evaluating documentation for the local and/or international transport of cargo and containers</li> <li>• Focus of operation of work systems, equipment, management and site operating systems for checking and evaluating cargo/container transport documentation</li> <li>• Problems that May occur when checking and evaluating documentation and appropriate action that can be taken to resolve the problems</li> <li>• Types of cargo, containers and transport modes and the documentation requirements for each</li> <li>• Site layout, loading/unloading plans and sequence sheets</li> <li>• The marking and numbering systems for cargo</li> <li>• Relevant bond, quarantine or other legislative requirements</li> </ul>		
Underpinning Skills	Demonstrates skills to: <ul style="list-style-type: none"> <li>• Communicate effectively with others when checking and evaluating transport documentation</li> <li>• Read and interpret instructions, procedures and labels relevant to checking and evaluating transport documentation</li> <li>• Receive, acknowledge and send messages with available communications equipment</li> <li>• Identify cargo, container and goods, coding, ADG and IMDG markings and where applicable emergency information panels</li> <li>• Work collaboratively with others when checking and evaluating transport documentation</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions when checking and evaluating transport documentation in accordance with regulatory requirements and workplace procedures</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> </ul>		
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	<ul style="list-style-type: none"> <li>Identify, select and use relevant equipment, processes and procedures when checking and evaluating documentation for the local and/or international transport of cargo and containers</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>Interview/Written Test</li> <li>Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level VI	
Unit Title	Operate and Monitor a Motive Power Unit
Unit Code	<a href="#">EIS TRO4 02 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to operate and monitor a motive power unit in accordance with relevant workplace practices, rail regulations and codes of practice. It includes operating the controls of the motive power unit, and monitoring its performance and maintaining its operational condition during a journey. It also includes working collaboratively with other train crew and relevant personnel.

Elements	Performance Criteria
1. Operate motive power unit	<p>1.1 <b>Motive power unit</b> handling techniques and track and road knowledge are applied to eliminate or <b>minimize risk</b> of injury to personnel or damage to equipment, rolling stock and load</p> <p>1.2 Acceleration and braking techniques are applied safely within track and road and weather conditions</p> <p>1.3 Movement of motive power unit between sections ensures that all rolling stock is positioned safely in accordance with relevant codes of practice, safe working systems, and related requirements</p> <p>1.4 When operating a motive power unit and procedures <b>personal protective equipment</b> is used for safety</p>
2. Operate and monitor on-board equipment	<p>2.1 <b>Motive power unit equipment</b> is monitored and operated to maintain optimum running conditions and identify faults, defects and deficiencies</p> <p>2.2 Appropriate <b>action is taken in response to identified faults, defects and deficiencies</b> to ensure safe <b>operation</b> of motive power unit, including communications with operations controller where necessary</p> <p>2.3 Faults, defects and deficiencies are assessed to determine risk of damage to equipment or injury to personnel</p>
3. Respond effectively to external operating factors	<p>3.1 Instructions are verified, when required, interpreted and followed, in accordance with <b>relevant codes</b> of practice, rail regulatory requirements and organizational policies and procedures, to ensure that actions taken are appropriate and safe</p> <p>3.2 Fixed and hand signals and verbal movement commands</p>

	<p>are interpreted and followed, in accordance with relevant codes of practice, safe working systems and organizational policies and procedures, to ensure that actions taken are appropriate and safe</p> <p>3.3 Hazardous situations are recognized and interpreted and appropriate initiatives and action are taken to minimize risk to personnel and equipment as per workplace procedures and <b>applicable regulation</b></p>
4. Work collaboratively with relevant personnel	<p>4.1 Safe operation and monitoring of the motive power unit is maintained in collaboration with relevant personnel as per <b>workplace procedures</b> and applicable regulatory requirements</p> <p>4.2 Any potential or actual conflicts or grievances with other members of the train crew, train controllers and other relevant personnel during the operation of the motive power unit are recognized and resolved in accordance with workplace procedures</p> <p>4.3 Where implemented, the principles of rail resource management are applied in all rail operations involving the motive power unit as per workplace procedures</p>
5 Communicate with personnel	<p>5.1 Regular communication is maintained with train crew, train controllers, drivers of other trains and other <b>relevant personnel</b> in the course of operation of the motive power unit as per workplace procedures and regulatory requirements</p> <p>5.2 Train crew, train controllers, drivers of other trains and other relevant personnel are advised of operational problems, delays, and safety incident and emergency situations that May arise in the course of operation of the motive power unit</p> <p>5.3 <b>Information</b> provided by train crew, train controllers, drivers of other trains and other relevant personnel relevant to the ongoing operation of the motive power unit is interpreted and applied to driving activities as per workplace procedures and applicable regulatory requirements</p>
6 Follow all applicable rail regulatory requirements	<p>6.1 Rail regulatory requirements applicable to the operation of the motive power unit and the train and track or road concerned are accessed, understood and interpreted</p> <p>6.2 Relevant rail regulatory requirements are applied and followed in the course of operation of the motive power unit</p> <p>6.3 Principles of rail resource management are applied in all rail operations involving the motive power unit as per workplace procedures and applicable rail regulatory</p>

	requirements
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Variable	Range
Motive power units May include all motive power units in service within Ethiopian rail systems	<p>May include:</p> <ul style="list-style-type: none"> <li>• diesel motive power units (MPU)</li> <li>• electric motive power units (MPU)</li> <li>• railcars</li> </ul>
Risk minimisation	<p>May require differentiating between faults, defects and deficiencies that:</p> <ul style="list-style-type: none"> <li>• do not present a hazard and could be attended to under running maintenance or in a normal maintenance schedule</li> <li>• present a potential hazard and need to be attended to under running maintenance or at the next most practical opportunity</li> <li>• present an immediate hazard and require immediate attention</li> </ul>
Safety and personal protective equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• gloves</li> <li>• sunscreen and sunglasses</li> <li>• safety glasses</li> <li>• insect repellent</li> <li>• safety headwear and footwear</li> <li>• two-way radios/mobile phones/satellite phone hand lamps</li> <li>• flags</li> <li>• safety devices</li> <li>• audible indicators</li> <li>• breathing equipment</li> <li>• fire extinguishers</li> <li>• high visibility clothing</li> <li>• hearing protection</li> </ul>
Motive power equipment	<p>May include:</p> <ul style="list-style-type: none"> <li>• auxiliary systems</li> <li>• automatic control systems</li> <li>• braking systems</li> <li>• drive systems</li> <li>• instrumentation</li> <li>• manual controls</li> <li>• remote train and signal control systems</li> <li>• communication systems</li> <li>• warning equipment</li> <li>• power source</li> <li>• vigilance systems</li> <li>• traction systems</li> <li>• head and marker lights</li> </ul>

Action taken upon the identification of faults, defects or deficiencies	<p>May include:</p> <ul style="list-style-type: none"> <li>reporting the problem and carrying out repairs (depending on the level and extent of work required), or isolating and tagging the faulty equipment and advising appropriate personnel of the fault and need for repair or replacement</li> </ul>
Operations	<p>May be conducted:</p> <ul style="list-style-type: none"> <li>by day or night</li> <li>in all weather conditions</li> </ul>
Applicable legislation, regulations and codes	<p>May include:</p> <ul style="list-style-type: none"> <li>legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>relevant Ethiopian Standards and related requirements</li> <li>relevant state/territory OHS legislation</li> <li>relevant state/territory environmental protection legislation</li> </ul>
workplace procedures	<p>May be called:</p> <ul style="list-style-type: none"> <li>standard operating procedures</li> <li>company procedures</li> <li>enterprise procedures</li> <li>organisational procedures</li> <li>established procedures</li> </ul>
Relevant personnel	<p>May include:</p> <ul style="list-style-type: none"> <li>train crew</li> <li>train controllers and signallers</li> <li>roistering supervisors and staff</li> <li>other train drivers and crews</li> <li>depot coordinators</li> <li>yard masters, supervisors and other operational personnel</li> <li>service delivery supervisors</li> <li>electric train service supervisor</li> <li>station yard staff</li> <li>maintenance and cleaning personnel</li> <li>immediate internal or external customers</li> </ul>
Information and documents	<p>May include:</p> <ul style="list-style-type: none"> <li>motive power unit operational records and user log books</li> <li>maintenance notices, records and requests</li> <li>preparation sheets, certificates and service dockets</li> <li>train running sheets</li> <li>time sheets</li> <li>roadworthy certificate</li> <li>train wire (MPU status list, dangerous goods list, consist information, etc.)</li> <li>automatic train protection parameters</li> <li>operational instructions, policies and procedures, including: those related to preventing motive power units from moving; track speed, length and load limitations; monitoring and</li> </ul>



	<p>complying with signals; and procedures for operating in accordance with specific track conditions</p> <ul style="list-style-type: none"> <li>• documented details of the train including length and weight</li> <li>• emergency procedures manual</li> </ul>
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### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul> </li> <li>• Assessment must include exercises which demonstrate competent performance of the following in a range of situations: <ul style="list-style-type: none"> <li>• applying handling techniques and track and road knowledge correctly</li> <li>• identifying and responding to all types of signals, including fixed and hand signals and verbal commands</li> <li>• maintaining appropriate levels of communication with appropriate personnel</li> </ul> </li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations</li> <li>• Motive power unit controls, instruments and indicators and their purpose, location and use</li> <li>• Procedures for operating and monitoring the motive power unit</li> <li>• Motive power unit knowledge including: monitoring devices, braking and drive equipment, ancillary systems, and signalling systems</li> <li>• Track and road knowledge including: track/bridge limitations, speed limitations, gauge limitations, curves and gradients, curfews, location of signals and crossings, emergency cross-overs, stations platforms and operation of a turntable</li> <li>• Braking and safety system procedures</li> <li>• Operating controls to start, accelerate, decelerate and stop the motive power unit</li> <li>• Speed and load limits for the motive power unit</li> <li>• Procedures for adjusting controls to maximise efficient and safe running</li> </ul>

	<ul style="list-style-type: none"> <li>• Procedures for managing safety incidents and hazardous situations that May arise when operating and monitoring a motive power unit</li> <li>• Procedures for operating and monitoring ancillary equipment on the motive power unit</li> <li>• Procedures for checking the battery and fluid levels and lubricating a diesel motive power unit (where applicable)</li> <li>• Procedures for checking the battery and fluid levels and lubricating an electric motive power unit (where applicable)</li> <li>• Procedures for identifying equipment defects and assessing them for appropriate action</li> <li>• Procedures for minor maintenance, cleaning, lubricating and servicing of a motive power unit</li> <li>• Typical faults that can occur on a motive power unit and related action that should be taken for repair, isolation, replacement, reporting and recording of the faulty equipment</li> <li>• Procedures for raising and lowering the pantograph on an electric motive power unit (where applicable)</li> <li>• Requirements for completing relevant documentation during and after operation and monitoring of a motive power unit</li> <li>• Train schedules, motive power unit allocation and operational instructions</li> <li>• Requirements for communicating and working collaboratively with relevant personnel</li> <li>• Procedures to be followed in the event of an emergency when operating a motive power unit</li> <li>• Personal protective equipment required when operating a motive power unit and procedures for its use</li> <li>• Local procedures and operating requirements</li> <li>• Procedures for operating electronic communications equipment with required protocol</li> </ul>		
Underpinning Skills	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when operating and monitoring a motive power unit</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the operation and monitoring of a motive power unit</li> <li>• Complete documentation related to the operation and monitoring of a motive power unit</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others</li> <li>• Identify and assess motive power unit defects and deficiencies and take appropriate action to report, isolate, repair or replace any identified defective equipment as per workplace procedures</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Implement contingency plans for unplanned events</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist when operating and monitoring a motive power unit</li> <li>• Recognise problems that May arise when operating and monitoring a motive power unit, and take appropriate action</li> <li>• Check and replenish fuel and fluids and carry out lubrication processes on a motive power unit (where applicable)</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Adapt to differences in motive power units and associated equipment and procedures</li> <li>• Select and use required personal protective clothing and equipment conforming to industry and OHS standards</li> <li>• Operate a motive power unit</li> <li>• Monitor the performance of a motive power unit</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Railway Operation Level IV	
Unit Title	Develop and Maintain a Safe Workplace
Unit Code	<a href="#">EIS TRO4 03 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to develop and maintain a safe workplace, including providing and informing personnel about OHS legislation, codes and standards; planning and implementing safety requirements in accordance with regulations; monitoring, adjusting and reporting safety performance; investigating and reporting non-conformance; and evaluating the OHS system and related policies, procedures and programs.

Elements	Performance Criteria		
1. Plan and implement safety requirements	<p>1.1 Health and safety risk assessments are made as part of all production planning exercises</p> <p>1.2 Policy and procedures are developed to implement requirements for a safe workplace</p> <p>1.3 Work practices are planned with colleagues to ensure compliance with <b>workplace procedure</b>, environmental legislation and standards</p> <p>1.4 Safe <b>operation</b> procedures are documented and communicated</p> <p>1.5 Work practices are implemented in accordance with requirements specified in legislation and standards for safe workplaces and environments</p> <p>1.6 Effective induction and supervision is provided to support colleagues in managing their organizational responsibilities</p> <p>1.7 Purchasing policy for the provision of goods and <b>services</b> is informed by OHS considerations</p>		
2. Inform and train personnel on OHS legislation, codes and standards	<p>2.1 Legislation, standards and the organization's policies and practices relevant to the creation and maintenance of a safe workplace and environment are made available to individuals/teams</p> <p>2.2 Arrangements are made to provide information in a language, style and format which is understood by colleagues</p> <p>2.3 An OHS training program is developed and implemented to work priorities and professional development of OHS training needs as part of the workplace's general <b>training activities</b></p> <p>2.4 Individuals/teams know their legal responsibility for maintaining a safe workplace and environment</p>		
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	2.5 The implications of an unsafe workplace and environment are clear to all within the workplace		
3. Establish and maintain procedures for assessing and controlling safety risks	<p>3.1 Safety risks presented by identified hazards are correctly assessed in accordance with OHS legislation and codes of practice</p> <p>3.2 Activities are monitored to ensure that this procedure is adopted effectively throughout the area of managerial responsibility</p> <p>3.3 Risk assessment is addressed at the planning, design and evaluation stages of any change within the area of managerial responsibility to ensure that the risk from hazards is not increased</p> <p>3.4 Measures to control assessed safety risks are developed and implemented in accordance with the hierarchy of control, relevant OHS legislation, codes of practice and trends identified from the OHS records system</p> <p>3.5 Activities are monitored to ensure that the risk control procedure is adopted effectively throughout the area of managerial responsibility</p> <p>3.6 Risk control is addressed at the planning, design and evaluation stages of any change within the area of managerial responsibility to ensure that adequate risk control measures are included</p>		
4. Monitor, adjust and report safety performance	<p>4.1 <b>Work place hazards</b> are identified, assessed and prioritized for action</p> <p>4.2 Controls are selected to minimize risks to health and safety</p> <p>4.3 Waste recycling, reduction and disposal is carried out within applicable <b>regulation and legislation</b> and organizational requirements</p> <p>4.4 Recommendations for improvements to meet legislation and associated standards are submitted to designated persons/groups</p> <p>4.5 Individuals/teams <b>consultative personnel</b> are informed of improvements and alterations to occupational health and safety procedures in the workplace</p> <p>4.6 Systems, records and reporting procedures are maintained according to legislative requirements</p>		
5. Evaluate the occupational health and safety system and related policies,	<p>5.1 The effectiveness of the OHS system and related policies, procedures and programs is assessed according to the workplace's aims with respect to OH&amp;S.</p> <p>5.2 Improvements to the OHS system are developed and implemented to ensure more effective achievement of the</p>		
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procedures and programs	workplace's organization's aims with respect to OHS policies and objectives.  5.3 Inadequacies in existing risk control measures are identified in accordance with the hierarchy of control, and resources enabling implementation of new measures are sought and/or provided according to appropriate procedures
6. Investigate and report non-conformance	6.1 Compliance with OHS legislation and codes of practice is assessed to ensure that legal OHS standards are maintained as a minimum  6.2 Non-conformance is investigated and dealt with according to legislative requirements  6.3 Colleagues are supported to acquire and apply competencies to meet legislative requirements and the associated standards  6.4 Changes to operations and practices are implemented to ensure that non-conformance is not repeated
7. Establish and maintain a system for OHS records	7.1 The work system for keeping OHS records is established and monitored to allow identification of patterns of occupational injury and disease within the area of managerial responsibility, including provision for relevant workplace OHS <b>information and documents</b> to be submitted to management

Variable	Range
Workplace plans/procedures	May include: <ul style="list-style-type: none"> <li>• company plans/procedures</li> <li>• enterprise plans/procedures</li> <li>• organisational plans/procedures</li> <li>• established plans/procedures</li> </ul>
Operations	Involve: <ul style="list-style-type: none"> <li>• internal and external customer/supplier contact and coordination</li> </ul>
Services, products, risks, work systems and requirements	May: <ul style="list-style-type: none"> <li>• potentially vary across different sections of the workplace</li> </ul>
Training activities	May include: <ul style="list-style-type: none"> <li>• attendance at formal education/training programs</li> <li>• completion of internal short training programs</li> <li>• attendances at relevant conferences, seminars and workshops</li> <li>• reading of relevant journals and literature</li> <li>• coaching/mentoring on the job</li> <li>• workplace training projects</li> </ul>

Workplace hazards	<p>May include but are not restricted to:</p> <ul style="list-style-type: none"> <li>• moving heavy loads in an unsafe work environment</li> <li>• unsecured machinery, components or repaired equipment</li> <li>• slippery floors</li> <li>• welding equipment</li> <li>• sharp tools and implements</li> <li>• power tools</li> <li>• moving and rotating machinery</li> <li>• flammable liquids, vapours and fuel</li> <li>• faulty machinery, handling equipment and lifting gear</li> <li>• using equipment beyond safe working limits</li> <li>• poor housekeeping procedures</li> <li>• non-compliance with safe working procedures</li> <li>• electrical wiring and systems, including exposed electrical circuits</li> <li>• working at heights and in confined spaces</li> <li>• toxic gases and substances</li> <li>• chemicals and other harmful substances</li> <li>• damaged goods, pallets and containers</li> <li>• dangerous/hazardous goods</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant regulations, standards and codes of practice</li> <li>• trading regulations relevant to business operations</li> <li>• general duty of care under OHS legislation and common law</li> <li>• requirements for the maintenance and confidentiality of records of occupational injury and disease</li> <li>• requirements for provision of OHS information and training</li> <li>• provisions relating to health and safety representatives and/or OHS committees</li> <li>• provisions relating to OHS issue resolution</li> <li>• environmental protection regulations</li> <li>• hazardous substances and dangerous goods codes</li> </ul>
Consultative personnel	<p>May involve:</p> <ul style="list-style-type: none"> <li>• OHS specialists</li> <li>• trainers</li> <li>• other employees and supervisors</li> <li>• management</li> <li>• union representatives</li> <li>• manufacturers representatives</li> <li>• supplier representatives</li> <li>• customers/clients</li> <li>• other maintenance, professional or technical staff</li> </ul>
Information/documentation	<p>May include:</p> <ul style="list-style-type: none"> <li>• workplace OHS procedures and policies</li> <li>• workplace OHS management system including hazard/safety risk control strategies</li> <li>• OHS training notes and materials</li> </ul>

	<ul style="list-style-type: none"> <li>• journals and work-related literature concerning OH&amp;S</li> <li>• competency standards</li> <li>• customer/client instructions</li> <li>• customer service standards and procedures</li> <li>• workplace products and services information</li> <li>• quality assurance standards and procedures</li> <li>• relevant agreements, codes of practice including the national standards for services and operations</li> <li>• manufacturers/suppliers' specifications, advice, recommended procedures, policies and instructions</li> <li>• workplace guidelines on appropriate workplace language and communication strategies and interpretation of relevant information</li> <li>• legislation, regulations and related documentation relevant to business operations</li> <li>• regulations and policies relating to minimising risks to the environment and ensuring compliance with OHS requirements</li> <li>• emergency procedures</li> </ul>
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<b>Evidence Guide</b>	
<b>Critical Aspects of Competence</b>	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• Plan and implement safety requirements</li> <li>• Inform and train personnel on OHS legislation, codes and standards</li> <li>• Establish and maintain procedures for assessing and controlling safety risks</li> <li>• Establish and maintain a system for OHS records</li> </ul>
<b>Underpinning Knowledge and Attitudes</b>	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• Relevant regulatory and code requirements</li> <li>• Relevant OHS and environmental protection policies and procedures</li> <li>• Workplace protocols and procedures for the management of personal work priorities and professional development</li> <li>• The systems of risk control recognising the significance of OHS for effective workplace operation</li> <li>• Workplace business policies and plans related to OHS issues</li> <li>• The significance of other management systems and procedures for OHS</li> <li>• Hazards and associated safety risks that exist in the workplace</li> <li>• The range of control measures available for these safety risks</li> <li>• Considerations for choosing between different control measures</li> </ul>



	<ul style="list-style-type: none"> <li>• How to identify when expert advice is needed</li> <li>• Elements of an effective OHS management system</li> <li>• Principles of risk management</li> <li>• Appropriate links to other management systems, for example contractors, maintenance and purchasing</li> <li>• The role of technical information and experts in designing hazard control measures, monitoring systems and health surveillance procedures</li> <li>• The hierarchy of hazard and risk control measures</li> <li>• Arrangements for participation and consultation over OH&amp;S</li> <li>• Incident and accident investigation arrangements</li> <li>• Training, coaching and mentoring approaches appropriate for use in OHS training programs</li> <li>• Typical problems that can occur when managing OHS systems and related action that can be taken</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Monitor, adjust and report safety performance</li> <li>• Evaluate the occupational health and safety system and related policies, procedures and programs</li> <li>• Investigate and report non-conformance</li> <li>• Monitor, adjust and report safety performance</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level IV	
Unit Title	Monitor Transport Activities at Interchanges
Unit Code	<a href="#">EIS TRO4 04 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to monitor transport activities at interchanges including monitoring transport and passenger movements, identifying and attending to coordination problems, and informing customers of irregularities.

Elements	Performance Criteria
1. Monitor transport and passenger movements	<p>1.1 Passenger and vehicle movements are monitored and recorded following <b>workplace procedures</b></p> <p>1.2 Passenger and vehicle movement irregularities are identified and recorded and possible solutions are provided</p> <p>1.3 <b>Timetables</b> are monitored to identify variations and recommend where action is required</p> <p>1.4 <b>Documentation/information</b> is completed in accordance with workplace requirements to maintain transport movement records</p>
2. Identify coordination problems	<p>2.1 Problems with services coordination are reported promptly and possible solutions are submitted to the relevant authority, <b>applicable regulation and legislation</b></p> <p>2.2 Irregularities with <b>internal systems</b> are reported promptly according to organization procedures</p> <p>2.3 <b>Operation</b> and adaptation to differences in equipment is in accordance with standard operating procedures</p> <p>2.4 Monitoring transport activities at <b>interchanges and embrace facilities</b> and related appropriate action that can be taken to prevent or solve typical problems that can occur</p>
3. Inform customers of irregularities	<p>3.1 <b>Communications</b> systems and <b>equipment</b> are operated in accordance with workplace policies and procedures to make necessary announcements</p> <p>3.2 Passengers are informed of irregularities and service changes promptly, clearly and courteously</p> <p>3.3 Transport service adjustments are conveyed to transport system staff</p>

<b>Variable</b>	<b>Range</b>
Workplace procedures	May include: <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Timetable variation	Refers to: <ul style="list-style-type: none"> <li>• services falling outside the boundaries used by the transport system in monitoring the compliance to scheduled services</li> </ul>
Information/documents	May include: <ul style="list-style-type: none"> <li>• workplace policies, standards and procedures</li> <li>• information from observation of passenger and vehicle movement</li> <li>• transport timetables</li> <li>• transport service information</li> <li>• communication with other personnel</li> <li>• relevant regulations concerning transport operations</li> <li>• competency standards and training materials</li> <li>• quality assurance procedures</li> <li>• security and emergency procedures</li> </ul>
Applicable regulations and legislation	May include: <ul style="list-style-type: none"> <li>• relevant state/territory regulations and legislation concerned with revenue protection within transport systems</li> <li>• relevant state/territory OHS regulations and legislation</li> <li>• relevant state/territory environmental protection legislation</li> </ul>
Internal systems	Include: <ul style="list-style-type: none"> <li>• timetables</li> <li>• electronic equipment</li> <li>• communications equipment</li> </ul>
Operations	May be conducted: <ul style="list-style-type: none"> <li>• in a range of work environments and weather conditions</li> <li>• by day or night</li> </ul>
Interchange operation embraces facilities	Used by: <ul style="list-style-type: none"> <li>• the organisation for the transfer of customers from one type of transport service to another or between services</li> </ul>
Communications systems used	Can include: <ul style="list-style-type: none"> <li>• public address system</li> <li>• telephone</li> <li>• two-way radio</li> </ul>
Equipment	May include: <ul style="list-style-type: none"> <li>• communication equipment</li> <li>• video/audio equipment</li> <li>• computer and related office equipment</li> <li>• timetables and service information</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant state and territory regulations and requirements pertaining to revenue protection</li> <li>• Relevant OHS and environmental protection procedures and guidelines</li> <li>• Risks and hazards when monitoring transport activities at interchanges and related precautions to control the risk</li> <li>• Organisation's transport services</li> <li>• Complementary transport services</li> <li>• Fare structures</li> <li>• Concessional privileges</li> <li>• Timetables</li> <li>• Organisational policies and procedures</li> <li>• Customer service requirements</li> <li>• Typical problems that can occur monitoring transport activities at interchanges and related appropriate action that can be taken to prevent or solve them</li> </ul>
Underpinning Skills	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when monitoring transport activities at interchanges</li> <li>• Handle and resolve conflict situations</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the monitoring of transport activities at interchanges</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the monitoring of transport activities at interchanges</li> <li>• Operate electronic communication equipment to required protocol, including radio systems</li> <li>• Calculate fares</li> <li>• Work collaboratively with others when monitoring transport activities at interchanges</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May arise when monitoring transport activities at interchanges in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May occur when monitoring transport activities at interchanges</li> </ul>

	<ul style="list-style-type: none"> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during the monitoring of transport activities at interchanges</li> <li>• Organise staff deployment</li> <li>• Manage stress when monitoring transport activities at interchanges</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Manage barrier operation</li> <li>• Validate tickets</li> <li>• Use basic mechanical skills required when monitoring transport activities at interchanges</li> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level IV	
Unit Title	Implement and Monitor Network Security
Unit Code	<a href="#">EIS TRO4 05 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to implement and monitor network security. It involves identifying all security threats to the network and implementing approved controls to maintain network security integrity. Manage network security

Elements	Performance Criteria
1. Identify threats	<p>1.1 Implement risk analysis of security threats faced by organization network</p> <p>1.2 Evaluate and identify internal and external threats to network such as hackers, eavesdropping and viruses</p> <p>1.3 Hardware and <b>Software</b> products with broad knowledge of general features and capabilities are accepted</p> <p>1.4 Electronic <b>communication</b> and other equipment is operated to the required protocol</p>
2. Identify appropriate controls	<p>2.1 Plans for cost effective improvements to network security are presented to management for approval and authorization</p> <p>2.2 External or intra network security devices and controls such as firewalls are presented to management for approval</p> <p>2.3 Controls to add to the network to manage elements such as user access or hackers, eavesdropping and viruses are identified</p>
3. Implement security	<p>3.1 Approved equipment and controls are installed and configured to provide required levels of security</p> <p>3.2 Recommendations are made for additional equipment and updates to maintain security integrity</p> <p>3.3 Any identified problems, faults or malfunctions are promptly reported and/or rectified in accordance with regulatory requirements and <b>workplace procedures</b></p> <p>3.4 <b>Documentation</b> related to work activities are record</p>

Variable	Range
Software	<p>Most likely to be:</p> <ul style="list-style-type: none"> <li>• packaged software</li> <li>• supplied from many varying vendors</li> </ul>

	<ul style="list-style-type: none"> <li>• security, audit, virus checking and encryption modules</li> </ul>
Communication in the work area	<p>May include:</p> <ul style="list-style-type: none"> <li>• phone</li> <li>• electronic data interchange (EDI)</li> <li>• fax</li> <li>• email</li> <li>• internet</li> <li>• intranet</li> <li>• RF systems</li> <li>• oral, aural or signed communications</li> </ul>
workplace procedures	<p>May be called:</p> <ul style="list-style-type: none"> <li>• standard operating procedures (SOPs)</li> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Documentation and records	<p>May include:</p> <ul style="list-style-type: none"> <li>• quality assurance procedures</li> <li>• emergency procedures</li> <li>• operations manuals</li> <li>• manufacturers specifications for network equipment</li> <li>• technical instructions</li> <li>• relevant Ethiopian Standards and certification requirements</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant sections of national and state or territory regulatory requirements and codes of practice</li> <li>• Current industry accepted hardware and software products with broad knowledge of general features and capabilities</li> <li>• Broad general knowledge of the client business domain, business function and organisation</li> <li>• Networking technologies, with broad knowledge of general features and capabilities incorporating substantial depth in some areas</li> <li>• Risk analysis, with broad knowledge of general features incorporating substantial depth in some areas</li> <li>• Specific security technology, with broad knowledge of general features incorporating substantial depth in some areas</li> <li>• Procedures for operating electronic communications equipment</li> <li>• Requirements for completing relevant documentation</li> </ul>

	<ul style="list-style-type: none"> <li>• Code of practice for working collaboratively with others</li> <li>• Typical defects that can occur and related action that should be taken</li> <li>• Procedures for identifying equipment defects and assessing for appropriate action</li> <li>• Principles, purpose and location of controls, monitoring devices, and systems</li> <li>• Steps involved in planning the work activities</li> <li>• Procedures for adjusting controls to optimise the operation of the equipment</li> <li>• Sources of information on differences in equipment and related standard operating and servicing procedures</li> </ul>
Underpinning Skills	<p>Demonstrates skill to:</p> <ul style="list-style-type: none"> <li>• Use plain English literacy and communication skills in relation to analysis, evaluation and presentation of information</li> <li>• Use questioning and active listening skills</li> <li>• Read and interpret instructions, procedures, information and signs relevant to work activities</li> <li>• Write reports for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas</li> <li>• Complete documentation related to work activities</li> <li>• Operate electronic communication and other equipment to required protocol</li> <li>• Work collaboratively with others</li> <li>• Solve problems for a defined range of unpredictable problems involving participation in the development of strategic initiatives</li> <li>• Use research to identify, analyse and evaluate broad features of a particular business domain and best practice in network security methodologies and technologies</li> <li>• Project plan in relation to scope, time, cost, quality, communications and risk management</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems, faults or malfunctions in accordance with regulatory requirements and workplace procedures</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Monitor performance of equipment</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.



Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level IV	
Unit Title	Allocate Motive Power
Unit Code	<a href="#">EIS TRO4 06 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to allocate motive power in accordance with workplace procedures and the requirements of relevant safe working regulations and codes of practice. It includes identifying train operating requirements, establishing motive power requirements and availability, allocating individual motive power units, and adjusting motive power allocation in accordance with workplace requirements. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Elements	Performance Criteria
1. Identify train operating requirements	<p>1.1 Train timetables, shunting requirements and track conditions for each line or service are identified and records kept up to date</p> <p>1.2 Tonnage of individual trains is identified to enable planning of suitable motive power</p> <p>1.3 Routine usage of motive power units is established to provide an initial allocation framework according to the <b>work place procedure</b></p> <p>1.4 <b>Contingency</b> plans covering operational problems are developed and their impact on motive power requirements taken into account</p>
2. Establish motive power requirements and availability	<p>2.1 Availability of all motive power units is determined including location, operational status, special and routine maintenance requirements</p> <p>2.2 <b>Motive power</b> requirement to haul tonnage is determined for each train/service and support activity consistent with track geography, gauge, train weight and conditions is identified</p>
3. Allocate individual motive power units	<p>3.1 Motive power units, including railcar and locomotive types, are allocated to ensure train and support activities are serviced</p> <p>3.2 <b>Allocations</b> are documented and communicated to <b>operations</b> personnel and feedback sought to ensure suitability of units planned</p> <p>3.3 Relevant OHS requirements are identified and included in the allocation considerations</p> <p>3.4 <b>Documentation</b> authorizing the use of motive power allocated for the train service is completed and processed</p>

4. Monitor and adjust motive power allocation	<p>4.1 Use and requirements for motive power are monitored and possible allocation changes determined to maintain efficient use of <b>resources</b></p> <p>4.2 Contingency plans for unexpected <b>non-availability of specific motive power</b> units or operational non-performance are implemented</p> <p>4.3 Changes to allocation are negotiated with operational personnel and motive power maintenance personnel to achieve suitable outcomes</p>
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Variable	Range
Workplace procedures	May include: <ul style="list-style-type: none"> <li>• company procedures</li> <li>• enterprise procedures</li> <li>• organisational procedures</li> <li>• established procedures</li> </ul>
Contingency processes	May involve: <ul style="list-style-type: none"> <li>• non-availability of specified motive power</li> <li>• equipment failure</li> <li>• operational breakdowns</li> <li>• communications difficulties</li> </ul>
Motive power allocated	May include: <ul style="list-style-type: none"> <li>• locomotives and self propelled railcars</li> <li>• steam locomotives</li> <li>• diesel and electric types</li> </ul>
Trains/services for which allocations are made	May include: <ul style="list-style-type: none"> <li>• short distance freight</li> <li>• long distance passenger service</li> <li>• work trains</li> <li>• special trains</li> <li>• long distance freight</li> <li>• urban passenger service</li> <li>• train service motive power requirements</li> <li>• support activities such as shunting</li> </ul>
Operations	May be: <ul style="list-style-type: none"> <li>• conducted by day or night</li> <li>• in all relevant weather conditions</li> </ul>
Information/documents	May include: <ul style="list-style-type: none"> <li>• applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• the Code of Practice for the Defined Interstate Rail Network in situations where marshalling operations are carried out on that network</li> <li>• workplace rules and operating procedures</li> <li>• train graphs</li> </ul>

	<ul style="list-style-type: none"> <li>• timetables</li> <li>• printouts from office machines</li> <li>• displays on computer monitors</li> <li>• hard copy documentation</li> <li>• computer based data systems</li> <li>• verbal and written information from relevant staff and management</li> <li>• conditions of service, legislation and industrial agreements including workplace agreements and awards</li> </ul>
Resources	<p>May include:</p> <ul style="list-style-type: none"> <li>• timetables</li> <li>• track and shunting requirements</li> <li>• motive power units</li> <li>• relevant workplace policy</li> <li>• authorisation documentation</li> </ul>
Establishing motive power requirements and availability	<p>May take into consideration:</p> <ul style="list-style-type: none"> <li>• operating policies</li> <li>• track specifications and limitations</li> <li>• distances</li> <li>• communication requirements</li> <li>• tonnages</li> <li>• double ended locomotives</li> <li>• coupling requirements</li> <li>• available motive power units</li> <li>• gauges</li> <li>• crew requirements</li> <li>• gradients</li> <li>• load types</li> <li>• configuration</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Applicable legislated rail safety requirements including acts and regulations from each state and territory together with any nationally approved compliance codes and/or guidelines</li> <li>• Relevant OHS and environmental procedures and regulations including codes of practice</li> <li>• Workplace procedures and policies for allocating motive power</li> <li>• Motive power units and specifications, capabilities and capacity</li> <li>• Crew requirements and working patterns</li> </ul>

	<ul style="list-style-type: none"> <li>• Allocation and maintenance schedules of motive power units</li> <li>• Track specifications and limitations</li> <li>• Gauges, distance, gradients and tonnages for relevant track area</li> <li>• Communication requirements</li> <li>• Load types</li> <li>• Timetables and train details</li> <li>• Emergency procedures</li> <li>• Relevant industrial awards and agreements</li> <li>• Equipment, and materials used when allocating motive power, and procedures that should be followed in their use</li> <li>• Problems that May occur when allocating motive power and appropriate action that can be taken to resolve the problems</li> <li>• Communication and negotiation requirements when allocating motive power</li> <li>• Documentation and record requirements</li> </ul>
Underpinning Skills	<p>Demonstrates skill to:</p> <ul style="list-style-type: none"> <li>• Communicate and negotiate effectively with others when allocating motive power</li> <li>• Read and interpret instructions, procedures and information relevant to the allocation of motive power</li> <li>• Read and interpret train graphs and diagrams</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the allocation of motive power</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when allocating motive power</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any problems, faults or malfunctions that are identified when allocating motive power in accordance with regulatory requirements and workplace procedures</li> <li>• Implement contingency plans for unanticipated situations that May arise when allocating motive power</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select and use relevant computing and communications</li> </ul>

	<p>equipment and materials when allocating motive power</p> <ul style="list-style-type: none"> <li>• Operate and adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level IV	
Unit Title	Manage Personal Work Priorities and Professional Development
Unit Code	<a href="#">EIS TRO4 07 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to manage personal work priorities and own professional development, including managing own qualities, goals, plans and performance; setting and meeting own work priorities; and developing and maintaining own professional competence.

Elements	Performance Criteria
1. Manage self	<p>1.1 Personal qualities and performance serve as a role model in the workplace</p> <p>1.2 Personal goals and plans reflect the organization's plans and personal roles, responsibilities and accountabilities</p> <p>1.3 Action is taken to achieve and extend personal goals beyond those planned</p> <p>1.4 Consistent personal performance is maintained in varying work conditions and <b>work place environment</b></p> <p>1.5 Relevant OHS and environmental protection policies, <b>applicable legislation and regulation</b> are used for professional development</p>
2. Set and meet own work priorities	<p>2.1 Competing demands are prioritized to achieve personal, team and the organization's goals and objectives</p> <p>2.2 Technology is used efficiently and effectively to manage work priorities and commitments</p> <p>2.3 <b>Communication</b> is used effectively with others when managing personal work priorities and professional development</p>
3. Develop and maintain professional competence	<p>3.1 Personal knowledge and skills are assessed against competency standards to determine <b>professional development</b> needs and <b>work priorities</b></p> <p>3.2 Feedback from clients and colleagues is used to identify and develop ways to improve competence</p> <p>3.3 Management development opportunities suitable to personal learning style(s) are selected and used to develop competence</p> <p>3.4 Participation in professional networks and associations enhances personal knowledge, skills and relationships</p> <p>3.5 New skills are identified and developed to achieve and maintain a competitive edge according to the <b>work place plan /procedure</b></p> <p>3.6 Selected technology, <b>information</b> systems, <b>services</b>,</p>

	<b>products</b> and <b>risk</b> situation are managed appropriately to apply a complete workplace tasks
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Variable	Range
The workplace environment May involve twenty-four hour operation	May include: <ul style="list-style-type: none"> <li>• single and multi-site locations</li> <li>• large, medium and small companies</li> </ul>
Applicable regulations and legislation	May include: <ul style="list-style-type: none"> <li>• relevant regulations, standards and codes of practice</li> <li>• trading regulations relevant to business operations</li> <li>• environmental protection regulations</li> <li>• hazardous substances and dangerous goods codes</li> <li>• relevant Ethiopian standards and certification requirements</li> <li>• licence, patent or copyright arrangements</li> </ul>
Communications systems	May involve: <ul style="list-style-type: none"> <li>• face-to-face conversation, meetings and workshops</li> <li>• telephone</li> <li>• fax</li> <li>• email</li> <li>• electronic data transfer of information (EDI)</li> <li>• mail</li> </ul>
Professional development activities	May include: <ul style="list-style-type: none"> <li>• attendance at formal education/training programs</li> <li>• completion of internal short training programs</li> <li>• attendance at relevant conferences, seminars and workshops</li> <li>• reading of relevant journals and literature</li> <li>• networking with other technical, managerial and professional staff</li> <li>• coaching/mentoring on the job</li> <li>• workplace training projects</li> </ul>
Work priorities and professional development	Are: <ul style="list-style-type: none"> <li>• directed at maximising achievement of the individual in accordance with the enterprise's objectives and strategic plans</li> </ul>
Workplace plans/procedures	May include: <ul style="list-style-type: none"> <li>• company plans/procedures</li> <li>• enterprise plans/procedures</li> <li>• organisational plans/procedures</li> <li>• established plans/procedures</li> </ul>
Information/docu mentation	May include: <ul style="list-style-type: none"> <li>• workplace procedures and policies</li> <li>• job specifications</li> <li>• training notes and materials</li> <li>• journals and work-related literature</li> </ul>



	<ul style="list-style-type: none"> <li>• competency standards</li> <li>• customer/client instructions</li> <li>• customer service standards and procedures</li> <li>• workplace products and services information</li> <li>• quality assurance standards and procedures</li> <li>• relevant agreements, codes of practice including the national standards for services and operations</li> <li>• manufacturers/suppliers specifications, advice, recommended procedures, policies and instructions</li> <li>• workplace guidelines on appropriate workplace language and communication strategies and interpretation of relevant information</li> <li>• legislation, regulations and related documentation relevant to business operations</li> <li>• regulations and policies relating to minimising risks to the environment and ensuring compliance with OHS requirements</li> <li>• emergency procedures</li> </ul>
Services, products, risks, work systems and requirements	<p>May:</p> <ul style="list-style-type: none"> <li>• potentially vary across different sections of the workplace</li> </ul>

### Evidence Guide

Critical Aspects of Competence	<p>Demonstrates skills and knowledge to:</p> <ul style="list-style-type: none"> <li>• The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:</li> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> </ul> <p>other relevant aspects of the range statement</p>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• Relevant regulatory and code requirements</li> <li>• Relevant OHS and environmental protection policies and procedures</li> <li>• Workplace protocols and procedures for the management of personal work priorities and professional development</li> <li>• Competencies required to increase participation in the planning and development of the organisation</li> <li>• Appropriate learning methods to maintain current competence or develop new competencies</li> <li>• Resource availability including the competencies of individuals in the team/group</li> <li>• Coaching and mentoring approaches to support team members to share knowledge and skills</li> <li>• Workplace business policies and plans including</li> </ul>

	<p>procedures for undertaking professional development</p> <ul style="list-style-type: none"> <li>• Typical problems that can occur when managing personal work priorities and professional development and related action that can be taken</li> </ul>
Underpinning Skills	<p>Demonstrates skill to:</p> <ul style="list-style-type: none"> <li>• Communicate effectively with others when managing personal work priorities and professional development</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the management of personal work priorities and professional development</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Complete documentation related to the management of personal work priorities and professional development</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when managing personal work priorities and professional development</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that May arise when managing personal work priorities and professional development in accordance with workplace procedures</li> <li>• Plan work activities, including predicting consequences and identifying improvements</li> <li>• Take advantage of learning opportunities both in the workplace and within training programs and workshops</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Apply fatigue management knowledge and techniques</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select and appropriately apply technology, information systems and procedures to complete workplace tasks</li> <li>• Adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting</p>

Occupational Standard: Train Operation Level IV	
Unit Title	Develop Plans to Meet Customer and Organization Needs
Unit Code	<a href="#">EIS TRO4 08 0313</a>
Unit Descriptor	This unit involves the skills and knowledge required to develop plans to meet customer and organization needs, including contributing to strategic planning, analyzing market needs, contributing to business documentation, and communicating on planning matters with other members of the organization.

Elements	Performance Criteria
1. Contribute to strategic planning	<p>1.1 A contribution is made to a shared vision and values for the workplace by assisting the examination of future opportunities and directions and their use in the shaping of business goals and objectives according to the <b>work place procedure</b></p> <p>1.2 A contribution is made to strategic planning by assisting in the investigation of the business in the <b>work place environment</b></p>
2. Analyze market needs	<p>2.1 Customer needs are researched and the outcomes analyzed and interpreted to establish business options and opportunities</p> <p>2.2 Opportunities are identified for <b>product ,work system and service</b> enhancement through an analysis of existing and potential market opportunities and the development of strategies to strengthen the workplace's market focus in suitable directions</p>
3. Contribute to business documentation	<p>3.1 Contributions of <b>information</b> are made to the preparation of the workplace's business <b>plans</b>/budgets</p> <p>3.2 All workplace insurance needs are identified and suitable cover taken out in accordance to the applicable <b>regulation and legislation</b></p>
4. Communicate to other members of the organization	<p>4.1 The outcomes of the planning process are communicated to appropriate persons in the organization and feedback mechanisms used to ensure continuous improvement of the planning ,<b>consultative process</b> and outcomes</p>

Variable	Range
Workplace plans/procedures	<p>May include:</p> <ul style="list-style-type: none"> <li>• company plans/procedures</li> <li>• enterprise plans/procedures</li> </ul>

	<ul style="list-style-type: none"> <li>• organisational plans/procedures</li> <li>• established plans/procedures</li> </ul>
The workplace environment May involve twenty-four hour operation and	<p>May include:</p> <ul style="list-style-type: none"> <li>• single and multi-site locations</li> <li>• large, medium and small companies</li> </ul>
Services, products, risks, work systems and requirements	<p>May:</p> <ul style="list-style-type: none"> <li>• potentially vary across different sections of the workplace</li> </ul>
Information/docu mentation	<p>May include:</p> <ul style="list-style-type: none"> <li>• procedures for the development of workplace plans and budgets</li> <li>• customer/client instructions and assessed requirements</li> <li>• legislation, regulations and related documentation relevant to business operations</li> <li>• regulations and policies relating to minimising risks to the environment and ensuring compliance with OHS requirements</li> <li>• insurance requirements</li> <li>• relevant agreements, codes of practice including the National Standards for Services and Operations</li> <li>• manufacturers/suppliers specifications, advice, recommended procedures, policies and instructions</li> <li>• reports of accidents and incidents within regulatory requirements and workplace procedures</li> <li>• workplace guidelines on appropriate workplace language and communication strategies and interpretation of relevant information</li> <li>• quality assurance procedures</li> </ul>
Plans	<p>May include:</p> <ul style="list-style-type: none"> <li>• operational plans</li> <li>• marketing plans</li> <li>• financial plans</li> </ul>
Applicable regulations and legislation	<p>May include:</p> <ul style="list-style-type: none"> <li>• relevant regulations, standards and codes of practice</li> <li>• equal employment legislation and related policies</li> <li>• environmental protection regulations</li> <li>• hazardous substances and dangerous goods codes licence, patent or copyright arrangements</li> <li>• taxation and trading regulations relevant to business operations</li> <li>• relevant insurance regulations</li> </ul>
Consultative processes	<p>May involve:</p> <ul style="list-style-type: none"> <li>• other employees and supervisors</li> <li>• customers and suppliers</li> <li>• management and union representatives</li> </ul>

	<ul style="list-style-type: none"> <li>• industrial relations and OHS specialists</li> <li>• other professional or technical staff, contractors and maintenance personnel</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	Demonstrates skills and knowledge in: <ul style="list-style-type: none"> <li>• the underpinning knowledge and skills</li> <li>• relevant legislation and workplace procedures</li> <li>• other relevant aspects of the range statement</li> </ul>
Underpinning Knowledge and Attitudes	Demonstrates knowledge of: <ul style="list-style-type: none"> <li>• Relevant regulatory and code requirements</li> <li>• Relevant OHS and environmental protection policies and procedures</li> <li>• Workplace protocols and procedures for the development of plans to meet customer and organisation needs, including: strategic planning, tactical planning and quality improvement of services/operations/products</li> <li>• Relevant workplace business management policies and practices, including requirements for the maintenance of security and confidentiality</li> <li>• Insurance requirements relevant to business operations</li> <li>• Focus of operation of business planning systems and resources</li> <li>• Resource availability including the processing capacity of equipment and software systems for planning activities</li> <li>• Typical problems that can occur when developing plans to meet customer and organisation needs and related appropriate action that can be taken</li> </ul>
Underpinning Skills	Demonstrates skill to: <ul style="list-style-type: none"> <li>• Communicate and negotiate effectively with others when developing plans to meet customer and organisation needs</li> <li>• Read and interpret instructions, procedures, information and signs relevant to the development of plans to meet customer and organisation needs</li> <li>• Interpret and follow operational instructions and prioritize work</li> <li>• Survey and assess organisation and customer requirements</li> <li>• Complete documentation related to the development of plans to meet customer and organisation needs</li> <li>• Operate electronic communication equipment to required protocol</li> <li>• Work collaboratively with others when developing plans to meet customer and organisation needs</li> <li>• Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others</li> <li>• Promptly report and/or rectify any identified problems that</li> </ul>

	<p>May arise when developing plans to meet customer and organisation needs in accordance with regulatory requirements and workplace procedures</p> <ul style="list-style-type: none"> <li>• Implement contingency plans for unanticipated situations that May occur when developing plans to meet customer and organisation needs</li> <li>• Apply precautions and required action to minimize, control or eliminate hazards that May exist during work activities</li> <li>• Monitor work activities in terms of planned schedule</li> <li>• Modify activities depending on differing operational contingencies, risk situations and environments</li> <li>• Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment</li> <li>• Select and appropriately apply technology, information systems and procedures to complete workplace tasks</li> <li>• Adapt to differences in equipment in accordance with standard operating procedures</li> <li>• Select and use required personal protective equipment conforming to industry and OHS standards</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview/Written Test</li> <li>• Observation/Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting

Occupational Standard: Train Operation Level IV	
Unit Title	Plan and Organize Work
Unit Code	<a href="#">EIS TRO4 09 0313</a>
Unit Descriptor	This unit covers the knowledge, skills and attitude required in planning and organizing work activities in a production application. It May be applied to a small independent operation or to a section of a large organization.

Elements	Performance Criteria
1. Set objectives	<p>1.1 <b>Objectives</b> are planned consistent with and linked to work activities in accordance with organizational aims.</p> <p>1.2 Objectives are stated as measurable targets with clear time frames.</p> <p>1.3 Support and commitment of team members are reflected in the objectives.</p> <p>1.4 Realistic and attainable objectives are identified.</p>
2. Plan and schedule work activities	<p>2.1 Tasks/work activities to be completed are identified and prioritized as directed.</p> <p>2.2 Tasks/work activities are broken down into steps in accordance with set time frames and achievable components.</p> <p>2.3 Task/work activities are assigned to appropriate team or individuals in accordance with agreed functions.</p> <p>2.4 <b>Resources</b> are allocated as per requirements of the activity.</p> <p>2.5 <b>Schedule of work activities</b> is coordinated with personnel concerned.</p>
3. Implement work plans	<p>3.1 <b>Work methods and practices</b> are identified in consultation with personnel concerned.</p> <p>3.2 <b>Work plans</b> are implemented in accordance with set time frames, resources and <b>standards</b>.</p>
4. Monitor work activities	<p>4.1 Work activities are monitored and compared with set objectives.</p> <p>4.2 Work performance is monitored.</p> <p>4.3 Deviations from work activities are reported and recommendations are coordinated with appropriate personnel and in accordance with set standards.</p> <p>4.4 Reporting requirements are complied with in accordance with recommended format.</p> <p>4.5 Timeliness of report is observed.</p>
	4.6 Files are established and maintained in accordance with standard operating procedures.

5. Review and evaluate work plans and activities	<p>5.1 Work plans, strategies and implementation are reviewed based on accurate, relevant and current information.</p> <p>5.2 Review is done based on comprehensive consultation with appropriate personnel on outcomes of work plans and reliable feedback.</p> <p>5.3 Results of review are provided to concerned parties and formed as the basis for adjustments/simplifications to be made to policies, processes and activities.</p> <p>5.4 Performance appraisal is conducted in accordance with organization rules and regulations.</p> <p>5.5 Performance appraisal report is prepared and documented regularly as per organization requirements.</p> <p>5.6 Recommendations are prepared and presented to <b>appropriate personnel/authorities</b>.</p> <p>5.7 <b>Feedback mechanisms</b> are implemented in line with organization policies.</p>
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Variable	Range
Objectives	May include but not limited to: <ul style="list-style-type: none"> <li>• Specific</li> <li>• General</li> </ul>
Resources	May include but not limited to: <ul style="list-style-type: none"> <li>• Personnel</li> <li>• Equipment and technology</li> <li>• Services</li> <li>• Supplies and materials</li> <li>• Sources for accessing specialist advice</li> <li>• Budget</li> </ul>
Schedule of work activities	May include but not limited to: <ul style="list-style-type: none"> <li>• Daily</li> <li>• Work-based</li> <li>• Contractual</li> <li>• Regular</li> </ul>
Work methods and practices	May include but not limited to: <ul style="list-style-type: none"> <li>• Legislated regulations and codes of practice</li> <li>• Industry regulations and codes of practice</li> <li>• Occupational health and safety practices</li> </ul>
Work plans	May include but not limited to: <ul style="list-style-type: none"> <li>• Daily work plans</li> <li>• Project plans</li> <li>• Program plans</li> <li>• Resource plans</li> <li>• Skills development plans</li> <li>• Management strategies and objectives</li> </ul>



Standards	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Performance targets</li> <li>• Performance management and evaluation systems</li> <li>• Occupational standards</li> <li>• Employment contracts</li> <li>• Client contracts</li> <li>• Discipline procedures</li> <li>• Workplace assessment guidelines</li> <li>• Internal quality assurance</li> <li>• Internal and external accountability and auditing requirements</li> <li>• Training Regulation Standards</li> <li>• Safety Standards</li> </ul>
Appropriate personnel/ authorities	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Appropriate personnel include:</li> <li>• Management</li> <li>• Line Staff</li> </ul>
Feedback mechanisms	<p>May include but not limited to:</p> <ul style="list-style-type: none"> <li>• Feedback mechanisms include:</li> <li>• Verbal feedback</li> <li>• Informal feedback</li> <li>• Formal feedback</li> <li>• Questionnaire</li> <li>• Survey</li> <li>• Group discussion</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>• set objectives</li> <li>• planned and scheduled work activities</li> <li>• implemented work plans</li> <li>• monitored work activities</li> <li>• reviewed and evaluated work plans and activities</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• organization's strategic plan, policies rules and regulations, laws and objectives for work unit activities and priorities</li> <li>• organizations policies, strategic plans, guidelines related to the role of the work unit</li> <li>• team work and consultation strategies</li> </ul>
Underpinning Skills	<p>Demonstrates skill of:</p> <ul style="list-style-type: none"> <li>• planning</li> <li>• leading</li> <li>• organizing</li> <li>• coordinating</li> <li>• communication skills</li> <li>• inter-and intra-person/motivation skills</li> <li>• presentation skills</li> </ul>

Resource Implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level IV	
<b>Unit Title</b>	<b>Migrate to New Technology</b>
<b>Unit Code</b>	<a href="#">EIS TRO4 10.0313</a>
<b>Unit Descriptor</b>	This unit defines the competence required to apply skills and knowledge in using new or upgraded technology. The rationale behind this unit emphasizes the importance of constantly reviewing work processes, skills and techniques in order to ensure that the quality of the entire business process is maintained at the highest level possible through the appropriate application of new technology. To this end, the person is typically engaged in on-going review and research in order to discover and apply new technology or techniques to improve aspects of the organization's activities.

Elements	Performance Criteria
1. Apply existing knowledge and techniques to technology and transfer	<p>1.1 Situations are identified where existing knowledge can be used as the basis for developing new skills.</p> <p>1.2 New or upgraded technology skills are acquired and used to enhance learning.</p> <p>1.3 New or upgraded equipment are identified, classified and used where appropriate, for the benefit of the organization.</p>
2. Apply functions of technology to assist in solving organizational problems	<p>2.1 Testing of new or upgraded equipment is conducted according to the specification manual.</p> <p>2.2 Features of new or upgraded equipment are applied within the organization</p> <p>2.3 Features and functions of new or upgraded equipment are used for solving organizational problems</p> <p>2.4 Sources of information relating to new or upgraded equipment are accessed and used</p>
3. Evaluate new or upgraded technology performance	<p>3.1 New or upgraded equipment is evaluated for performance, usability and against OHS standards.</p> <p>3.2 <b>Environmental considerations</b> are determined from new or upgraded equipment.</p> <p>3.3 <b>Feedback</b> is sought from users where appropriate.</p>

<b>Variables</b>	<b>Range</b>
Environmental Considerations	May include but is not limited to: <ul style="list-style-type: none"> <li>• recycling, safe disposal of packaging (e.g. cardboard, polystyrene, paper, plastic) and correct disposal of waste materials by an authorized body</li> </ul>
Feedback	May include but is not limited to: <ul style="list-style-type: none"> <li>• surveys,</li> <li>• questionnaires,</li> <li>• interviews and meetings.</li> </ul>

<b>Evidence Guide</b>	
Critical Aspects of Competence	Competence must confirm the ability to transfer the application of existing skills and knowledge to new technology
Underpinning Knowledge and Attitudes	Demonstrate knowledge of: <ul style="list-style-type: none"> <li>• Broad awareness of current technology trends and directions in the industry (e.g. systems/procedures, services, new developments, new protocols)</li> <li>• Knowledge of vendor product directions</li> <li>• Ability to locate appropriate sources of information regarding metal manufacturing and new technologies</li> <li>• Current industry products/services, procedures and techniques with knowledge of general features</li> <li>• Information gathering techniques</li> </ul>
Underpinning Skills	Demonstrate skills of: <ul style="list-style-type: none"> <li>• Research skills for identifying broad features of new technologies</li> <li>• Ability to assist in the decision making process</li> <li>• Literacy skills in regard to interpretation of technical manuals</li> <li>• Ability to solve known problems in a variety of situations and locations</li> <li>• Evaluate and apply new technology to assist in solving organizational problems</li> <li>• General analytical skills in relation to known problems</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level IV	
Unit Title	Establish Quality Standards
Unit Code	<a href="#">EIS TRO4 11 0313</a>
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to establish quality specifications for work outcomes and work performance. It includes monitoring and participation in maintaining and improving quality, identifying critical control points in the production of quality output and assisting in planning and implementing of quality assurance procedures.

Elements	Performance Criteria
1. Establish quality specifications for product	1.1 Market specifications are <b>sourced</b> and <b>legislated requirements</b> identified. 1.2 Quality specifications are developed and agreed upon 1.3 Quality specifications are documented and introduced to organization staff / personnel in accordance with the organization policy 1.4 Quality specifications are updated when necessary
2. Identify hazards and critical control points	2.1. Critical control points impacting on quality are identified. 2.2. Degree of risk for each hazard is determined. 2.3. Necessary documentation is accomplished in accordance with organization quality procedures
3. Assist in planning of quality assurance procedures	3.1 Procedures for each identified control point are developed to ensure optimum quality. 3.2 Hazards and risks are minimized through application of appropriate controls. 3.3 Processes are developed to monitor the effectiveness of quality assurance procedures.
4. Implement quality assurance procedures	4.1 Responsibilities for carrying out procedures are allocated to staff and contractors. 4.2 Instructions are prepared in accordance with the enterprise's quality assurance program. 4.3 Staff and contractors are given induction training on the quality assurance policy. 4.4 Staff and contractors are given in-service training relevant to their allocated <b>safety procedures</b> .
5. Monitor quality of work outcome	5.1 Quality requirements are identified 5.2 Inputs are inspected to confirm capability to meet quality requirements 5.3 Work is conducted to produce required outcomes

	<p>5.4 Work processes are monitored to confirm quality of output and/or service</p> <p>5.5 Processes are adjusted to maintain outputs within specification.</p>
6. Participate in maintaining and improving quality at work	<p>6.1 Work area, materials, processes and product are routinely monitored to ensure compliance with quality requirements</p> <p>6.2 Non-conformance in inputs, process, product and/or service is identified and reported according to workplace reporting requirements</p> <p>6.3 Corrective action is taken within level of responsibility, to maintain quality standards</p> <p>6.4 Quality issues are raised with designated personnel</p>
7. Report problems that affect quality	<p>7.1 Potential or existing quality problems are recognized.</p> <p>7.2 Instances of variation in quality are identified from specifications or work instructions.</p> <p>7.3 Variation and potential problems are reported to supervisor/manager according to enterprise guidelines.</p>

Variable	Range
Sourced	<ul style="list-style-type: none"> <li>• End-users</li> <li>• Customers or stakeholders</li> </ul>
Legislated requirements	<ul style="list-style-type: none"> <li>• Verification of product quality as part of consumer legislation or specific legislation related to product content or composition.</li> </ul>
Safety procedures.	<ul style="list-style-type: none"> <li>• Use of tools and equipment for fabrication/production/manufacturing works</li> <li>• Workplace environment and handling of material safety,</li> <li>• Following occupational health and safety procedures designated for the task</li> <li>• Respect the policies, regulations, legislations, rule and procedures for manufacturing/production/fabrication works</li> </ul>

Evidence Guide	
Critical Aspect of Competence	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>• Monitored quality of work</li> <li>• Established quality specifications for product</li> <li>• Participated in maintaining and improving quality at work</li> <li>• Identified hazards and critical control points in the production of quality product</li> <li>• Assisted in planning of quality assurance procedures</li> <li>• Reported problems that affect quality</li> <li>• Implemented quality assurance procedures</li> </ul>

Underpinning Knowledge and Attitudes	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• work and product quality specifications</li> <li>• quality policies and procedures</li> <li>• improving quality at work</li> <li>• hazards and critical points of operation</li> <li>• obtaining and using information</li> <li>• applying federal and regional legislation within day-to-day work activities</li> <li>• accessing and using management systems to keep and maintain accurate records</li> <li>• requirements for correct preparation and operation</li> <li>• technical writing</li> </ul>
Underpinning Skills	<p>Demonstrates skills in:</p> <ul style="list-style-type: none"> <li>• monitoring quality of work</li> <li>• establishing quality specifications for product</li> <li>• participating in maintaining and improving quality at work</li> <li>• identifying hazards and critical control points in the production of quality product</li> <li>• assisting in planning of quality assurance procedures</li> <li>• reporting problems that affect quality</li> <li>• implementing quality assurance procedures</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
Methods of Assessment	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration</li> </ul>
Context of Assessment	<p>Competence May be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Train Operation Level IV	
Unit Title	Develop Individuals and Team
Unit Code	<a href="#">EIS TRO4 12 0313</a>
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to determine individual and team development needs and facilitate the development of the workgroup.

Elements	Performance Criteria
1. Provide team leadership	<p>1.1 <b>Learning and development needs</b> are systematically identified and implemented in line with <b>organizational requirements</b></p> <p>1.2 Learning plan to meet individual and group training and developmental needs is collaboratively developed and implemented</p> <p>1.3 Individuals are encouraged to self-evaluate performance and identify areas for improvement</p> <p>1.4 <b>Feedback on performance</b> of team members is collected from relevant sources and compared with established team learning process</p>
2. Foster individual and organizational growth	<p>2.1 Learning and development program goals and objectives are identified to match the specific knowledge and skills requirements of Competence standards</p> <p>2.2 <b>Learning delivery methods</b> are made appropriate to the learning goals, the learning style of participants and availability of equipment and resources</p> <p>2.3 Workplace learning opportunities and coaching/mentoring assistance are provided to facilitate individual and team achievement of competencies</p> <p>2.4 Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements</p>
3. Monitor and evaluate workplace learning	<p>3.1 Feedback from individuals or teams is used to identify and implement improvements in future learning arrangements</p> <p>3.2 Outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support</p> <p>3.3 Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning</p> <p>3.4 Records and reports of competence are maintained within organizational requirement</p>



4. Develop team commitment and cooperation	<p>4.1 Open communication processes to obtain and share information is used by team</p> <p>4.2 Decisions are reached by the team in accordance with its agreed roles and responsibilities</p> <p>4.3 Mutual concern and camaraderie are developed in the team</p>
5. Facilitate accomplishment of organizational goals	<p>5.1 Team members are actively participated in team activities and communication processes</p> <p>5.2 Individual and joint responsibility is developed by teams members for their actions</p> <p>5.3 Collaborative efforts are sustained to attain organizational goals</p>

Variable	Range
Learning and development needs	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Coaching, monitoring and/or supervision</li> <li>• Formal/informal learning program</li> <li>• Internal/external training provision</li> <li>• Work experience/exchange/opportunities</li> <li>• Personal study</li> <li>• Career planning/development</li> <li>• Performance evaluation</li> <li>• Workplace skills assessment</li> <li>• Recognition of prior learning</li> </ul>
Organizational requirements	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Quality assurance and/or procedures manuals</li> <li>• Goals, objectives, plans, systems and processes</li> <li>• Legal and organizational policy/guidelines and requirements</li> <li>• Safety policies, procedures and programs</li> <li>• Confidentiality and security requirements</li> <li>• Business and performance plans</li> <li>• Ethical standards</li> <li>• Quality and continuous improvement processes and standards</li> </ul>
Feedback on performance	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Formal/informal performance evaluation</li> <li>• Obtaining feedback from supervisors and colleagues</li> <li>• Obtaining feedback from clients</li> <li>• Personal and reflective behaviour strategies</li> <li>• Routine and organizational methods for monitoring service delivery</li> </ul>
Learning delivery methods	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• On the job coaching or monitoring</li> <li>• Problem solving</li> <li>• Presentation/demonstration</li> </ul>

	<ul style="list-style-type: none"> <li>• Formal course participation</li> <li>• Work experience and involvement in professional networks</li> <li>• Conference and seminar attendance</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>Demonstrates skills and knowledge in:</p> <ul style="list-style-type: none"> <li>• identified and implemented learning opportunities for others</li> <li>• gave and received feedback constructively</li> <li>• facilitated participation of individuals in the work of the team</li> <li>• negotiated plans to improve the effectiveness of learning</li> <li>• prepared learning plans to match skill needs</li> <li>• accessed and designated learning opportunities</li> </ul>
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• coaching and monitoring principles</li> <li>• understanding how to work effectively with team members who have diverse work styles, aspirations, cultures and perspective</li> <li>• understanding how to facilitate team development and improvement</li> <li>• understanding methods and techniques to obtain and interpreting feedback</li> <li>• understanding methods for identifying and prioritizing personal development opportunities and options</li> <li>• knowledge of career paths and competence standards in the industry</li> </ul>
Underpinning Skills	<p>Demonstrates skills in:</p> <ul style="list-style-type: none"> <li>• reading and understanding a variety of texts, preparing general information and documents according to target audience; spell with accuracy; use grammar and punctuation effective relationships and conflict management</li> <li>• communication including receiving feedback and reporting, maintaining effective relationships and conflict management</li> <li>• planning skills to organize required resources and equipment to meet learning needs</li> <li>• coaching and mentoring skills to provide support to colleagues</li> <li>• reporting to organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes</li> <li>• facilitation to conduct small group training sessions</li> <li>• relating to people from a range of social, cultural, physical and mental backgrounds</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>

Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level IV	
Unit Title	Utilize Specialized Communication Skills
Unit Code	<a href="#">EIS TRO4 13 0313</a>
Unit Descriptor	This unit covers the knowledge, skills and attitudes required to use specialized communication skills to meet specific needs of internal and external clients, conduct interviews, facilitate group discussions, and contribute to the development of communication strategies.

Elements	Performance Criteria
1. Meet common and specific communication needs of clients and colleagues	1.1 Specific communication needs of clients and colleagues are identified and met 1.2 Different approaches are used to meet communication needs of clients and colleagues 1.3 Conflict is addressed promptly and in a timely way and in a manner which does not compromise the standing of the organization
2. Contribute to the development of communication strategies	2.1 <b>Strategies</b> for internal and external dissemination of information are developed, promoted, implemented and reviewed as required 2.2 Channels of communication are established and reviewed regularly 2.3 Coaching in effective communication is provided 2.4 Work related network and relationship are maintained as necessary 2.5 Negotiation and conflict resolution strategies are used where required 2.6 Communication with clients and colleagues is appropriate to individual needs and organizational objectives
3. Represent the organization	3.1 When participating in internal or external fora, presentation is relevant, appropriately researched and presented in a manner to promote the organization 3.2 Presentation is made clear and sequential and delivered within a predetermined time 3.3 Appropriate media is utilized to enhance presentation 3.4 Differences in views are respected 3.5 Written communication is made consistent with organizational standards 3.6 Inquiries are responded in a manner consistent with organizational standard

4. Facilitate group discussion	<p>4.1 Mechanisms which enhance <b>effective group interaction</b> are defined and implemented</p> <p>4.2 Strategies which encourage all group members to participate are used routinely</p> <p>4.3 Objectives and agenda are routinely set and followed for meetings and discussions</p> <p>4.4 Relevant information are provided to group to facilitate outcomes</p> <p>4.5 Evaluation of group communication strategies is undertaken to promote participation of all parties</p> <p>4.6 Specific communication needs of individuals are identified and addressed</p>
5. Conduct interview	<p>5.1 A range of appropriate communication strategies are employed in <b>interview situations</b></p> <p>5.2 Different <b>types of interview</b> is conducted in accordance with the organizational procedures</p> <p>5.3 Records of interviews are made and maintained in accordance with organizational procedures</p> <p>5.4 Effective questioning, listening and nonverbal communication techniques are used to ensure that required message is communicated</p>

Variable	Range
Strategies	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Recognizing own limitations</li> <li>• Utilizing techniques and aids</li> <li>• Providing written drafts</li> <li>• Verbal and non verbal communication</li> </ul>
Effective group interaction	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Identifying and evaluating what is occurring within an interaction in a non-judgmental way</li> <li>• Using active listening</li> <li>• Making decision about appropriate words, behaviour</li> <li>• Putting together response which is culturally appropriate</li> <li>• Expressing an individual perspective</li> <li>• Expressing own philosophy, ideology and background and exploring impact with relevance to communication</li> </ul>
Interview situations	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Establish rapport</li> <li>• obtain facts and information</li> <li>• Facilitate resolution of issues</li> <li>• Develop action plans</li> <li>• Diffuse potentially difficult situation</li> </ul>
Types of Interview	<p>May include but is not limited to:</p> <ul style="list-style-type: none"> <li>• Related to staff issues</li> </ul>

	<ul style="list-style-type: none"> <li>• Routine</li> <li>• Confidential</li> <li>• Evidential</li> <li>• Non-disclosure</li> <li>• Disclosure</li> </ul>
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<b>Evidence Guide</b>	
<b>Critical Aspects of Competence</b>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>• Demonstrated effective communication skills with clients and work colleagues accessing service</li> <li>• Adopted relevant communication techniques and strategies to meet client particular needs and difficulties</li> </ul>
<b>Underpinning Knowledge and Values</b>	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• communication process</li> <li>• dynamics of groups and different styles of group leadership</li> <li>• communication skills relevant to client groups</li> </ul>
<b>Underpinning Skills</b>	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• full range of communication techniques including: <ul style="list-style-type: none"> <li>➤ active listening</li> <li>➤ feedback</li> <li>➤ interpretation</li> <li>➤ role boundaries setting</li> <li>➤ negotiation</li> <li>➤ establishing empathy</li> <li>➤ communication strategies</li> </ul> </li> <li>• communication required to fulfill job roles as specified by the organization</li> </ul>
<b>Resource Implications</b>	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>
<b>Methods of Assessment</b>	<p>Competence May be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
<b>Context of Assessment</b>	<p>Competence May be assessed in the work place or in a simulated work place setting.</p>

Occupational Standard: Train Operation Level IV	
Unit Title	Manage and Maintain Small/Medium Business Operations
Unit Code	<a href="#">EIS TRO4 14 0313</a>
Unit Descriptor	This unit covers the operation of day-to-day business activities in a micro or small business. The strategies involve developing, monitoring and managing work activities and financial information, developing effective work habits, and adjusting work schedules as needed.

Elements	Performance Criteria
1. Identify daily work requirements	1.1 Work requirements are identified for a given time period by taking into consideration <b>resources</b> and constraints 1.2 Work activities are prioritized based on business needs, requirements and deadlines 1.3 If appropriate, work is allocated to relevant staff or contractors to optimize efficiency
2. Monitor and manage work	2.1 People, resources and/or equipment are coordinated to provide optimum results 2.2 Staff, clients and/or contractors are communicated within a clear and regular manner, to monitor work in relation to <b>business goals</b> or timelines 2.3 <b>Problem solving techniques</b> are applied to work situations to overcome difficulties and achieve positive outcomes
3. Develop effective work habits	3.1 Work and personal priorities are identified and a balance is achieved between competing priorities using appropriate <b>time management strategies</b> 3.2 Input from <b>internal and external sources</b> is sought and used to develop and refine new ideas and approaches 3.3 Business or inquiries is/are responded to promptly and effectively 3.4 Information is presented in a format appropriate to the industry and audience
4. Interpret financial information	4.1 Relevant documents and reports are identified 4.2 Documents and reports are read and understood and any implications discussed with appropriate persons 4.3 Data and numerical calculations are analyzed, checked, evaluated, organized and reconciled 4.4 Daily financial records and cash flow are maintained

	<p>correctly and in accordance with legal and accounting requirements</p> <p>4.5 Invoices and payments are prepared and distributed in a timely manner and in accordance with legal requirements</p> <p>4.6 Outstanding accounts are collected or followed-up on</p>
5. Evaluate work performance	<p>5.1 Opportunities for improvements are monitored according to business demands</p> <p>5.2 Work schedules are adjusted to incorporate necessary modifications to existing work and routines or changing needs and requirements</p> <p>5.3 Proposed changes are clearly communicated and recorded to aid in future planning and evaluation</p> <p>5.4 Relevant codes of practice are used to guide an ethical approach to workplace practices and decisions</p>

Variable	Range
Resources	<p>May include:</p> <ul style="list-style-type: none"> <li>• staff</li> <li>• money</li> <li>• time</li> <li>• equipment</li> <li>• space</li> </ul>
Business goals	<p>May include:</p> <ul style="list-style-type: none"> <li>• sales targets</li> <li>• budgetary targets</li> <li>• team and individual goals</li> <li>• production targets</li> <li>• reporting deadlines</li> </ul>
Problem solving techniques	<p>May include:</p> <ul style="list-style-type: none"> <li>• gaining additional research and information to make better informed decisions</li> <li>• looking for patterns</li> <li>• considering related problems or those from the past and how they were handled</li> <li>• eliminating possibilities</li> <li>• identifying and attempting sub-tasks</li> <li>• collaborating and asking for advice or help from additional sources</li> </ul>
Time management strategies	<p>May include:</p> <ul style="list-style-type: none"> <li>• prioritizing and anticipating</li> <li>• short term and long term planning and scheduling</li> <li>• creating a positive and organized work environment</li> <li>• clear timelines and goal setting that is regularly reviewed and adjusted as necessary</li> <li>• breaking large tasks into smaller tasks</li> <li>• getting additional support if identified and necessary</li> </ul>



Internal and external sources:	<p>May include</p> <ul style="list-style-type: none"> <li>• staff and colleagues</li> <li>• management, supervisors, advisors or head office</li> <li>• relevant professionals such as lawyers, accountants, management consultants</li> <li>• professional associations</li> </ul>
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<b>Evidence Guide</b>	
Critical Aspects of Competence	<p>A person must be able to demonstrate:</p> <ul style="list-style-type: none"> <li>• ability to identify daily work requirements and allocate work appropriately</li> <li>• ability to interpret financial documents in accordance with legal requirements</li> </ul>
Underpinning Knowledge and Attitudes	<p>Demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• Federal and Local Government legislative requirements affecting business operations, especially in regard to occupational health and safety (OHS), equal employment opportunity, industrial relations and anti-discrimination</li> <li>• technical or specialist skills relevant to the business operation</li> <li>• relevant industry code of practice</li> <li>• planning techniques to establish realistic timelines and priorities</li> <li>• identification of relevant performance measures</li> <li>• quality assurance principles and methods</li> <li>• relevant marketing, management, sales and financial concepts</li> <li>• methods for monitoring performance and implementing improvements</li> <li>• structured approaches to problem solving, idea management and time management</li> </ul>
Underpinning Skills	<p>Demonstrate skills to:</p> <ul style="list-style-type: none"> <li>• interpret legal requirements, company policies and procedures and immediate, day-to-day demands</li> <li>• communication skills including questioning, clarifying, reporting, and giving and receiving constructive feedback</li> <li>• numeracy skills for performance information, setting targets and interpreting financial documents and reports</li> <li>• technical and analytical skills to interpret business document, reports and financial statements and projections</li> <li>• ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities</li> <li>• problem solving skills to develop contingency plans</li> <li>• using computers and software packages to record and manage data and to produce reports</li> <li>• evaluation skills for assessing work and outcomes</li> <li>• observation skills for identifying appropriate people, resources and to monitor work</li> </ul>
Resource Implications	<p>Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.</p>

Methods of Assessment	Competence May be assessed through: <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence May be assessed in the work place or in a simulated work place setting.

Occupational Standard: Train Operation Level IV	
Unit Title	Apply Problem Solving Techniques and Tools
Unit Code	<a href="#">EIS TRO4 15 0313</a>
Unit Descriptor	This unit of competency covers the knowledge, skills and attitude required to apply scientific problem solving techniques and tools to enhance quality, productivity and other kaizen elements on continual basis.

Elements	Performance criteria
1. Identify and select theme/problem.	<p>1.1 <b>Safety requirements</b> are followed in accordance with safety plans and procedures.</p> <p>1.2 All possible problems related to the process /Kaizen elements are listed using <b>statistical tools and techniques</b>.</p> <p>1.3 All possible problems related to kaizen elements are identified and listed on Visual Management Board/Kaizen Board.</p> <p>1.4 Problems are classified based on obviousness of cause and action.</p> <p>1.5 Critical factors like the number of customers affected, Potentials for bottlenecks, and number of complaints etc... is selected.</p> <p>1.6 Problems related to priorities of <b>Kaizen Elements</b> are given due emphasis and selected.</p>
2. Grasp current status and set goal.	<p>2.1 The extent of the problem is defined.</p> <p>2.2 Appropriate and achievable goal is set.</p>
3. Establish activity plan.	<p>3.1 The problem is confirmed.</p> <p>3.2 High priority problem is selected.</p> <p>3.3 The extent of the problem is defined.</p> <p>3.4 Activity plan is established as per <b>5W1H</b>.</p>
4. Analyze causes of a problem.	<p>4.1 All possible causes of a problem are listed.</p> <p>4.2 Cause relationships are analyzed using <b>4M1E</b>.</p> <p>4.3 Causes of the problems are identified.</p> <p>4.4 Root causes are selected.</p> <p>4.5 The root cause which is most directly related to the problem is selected.</p> <p>4.6 All possible ways are listed using <b>creative idea generation</b> to eliminate the most critical root cause.</p> <p>4.7 The suggested solutions are carefully tested and</p>

	<p>evaluated for potential complications.</p> <p>4.8 Detailed summaries of the action plan are prepared to implement the suggested solution.</p>
5. Examine countermeasures and their implementation.	<p>5.1 Action plan is implemented by <b>medium KPT</b> members.</p> <p>5.2 Implementation is monitored according to the agreed procedure and activities are checked with preset plan.</p>
6. Assess effectiveness of the solution.	<p>6.1 <b>Tangible and intangible results</b> are identified.</p> <p>6.2 The results are verified over time.</p> <p>6.3 Tangible results are compared with targets using <b>various types of diagram</b>.</p>
7. Standardize and sustain operation.	<p>7.1 If the goal is achieved, the new procedures are standardized and made part of daily activities.</p> <p>7.2 All employees are trained on the new <b>Standard Operating Procedures (SOPs)</b>.</p> <p>7.3 SOP is verified and followed by all employees.</p> <p>7.4 The next problem is selected to be tackled by the team.</p>

Variables	Range
Safety requirements	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• OHS requirements include legislation, material safety, managements system, hazardous substances and dangerous goods code and local safe operating procedures</li> <li>• Work is carried out in accordance with legislative obligations, environmental legislations, relevant health regulation, manual handling procedure and organization insurance requirements</li> </ul>
Statistical tools and techniques	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• 7 QC tools may include: <ul style="list-style-type: none"> <li>➤ Stratification</li> <li>➤ Pareto Diagram</li> <li>➤ Cause and Effect Diagram</li> <li>➤ Check Sheet</li> <li>➤ Control Chart/Graph</li> <li>➤ Histogram</li> <li>➤ Scatter Diagram</li> </ul> </li> <li>• QC techniques may include: <ul style="list-style-type: none"> <li>➤ Brain storming</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>➤ Why analysis</li> <li>➤ What if analysis</li> <li>➤ 5W1H</li> </ul>		
Kaizen Elements	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• Quality</li> <li>• Cost</li> <li>• Productivity</li> <li>• Delivery</li> <li>• Safety</li> <li>• Moral</li> <li>• Environment</li> <li>• Gender equality</li> </ul>		
5W1H	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• Who: person in charge</li> <li>• Why: objective</li> <li>• What: item to be implemented</li> <li>• Where: location</li> <li>• When: time frame</li> <li>• How: method</li> </ul>		
4M1E	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• Man</li> <li>• Machine</li> <li>• Method</li> <li>• Material and</li> <li>• Environment</li> </ul>		
Creative idea generation	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• Brainstorming</li> <li>• Exploring and examining ideas in varied ways</li> <li>• Elaborating and extrapolating</li> <li>• Conceptualizing</li> </ul>		
Medium KPT	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• 5S</li> <li>• 4M (machine, method, material and man)</li> <li>• 4P (Policy, procedures, People and Plant)</li> <li>• PDCA cycle</li> <li>• Basics of IE tools and techniques</li> </ul>		
Tangible and	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• Tangible result may include:</li> </ul>		
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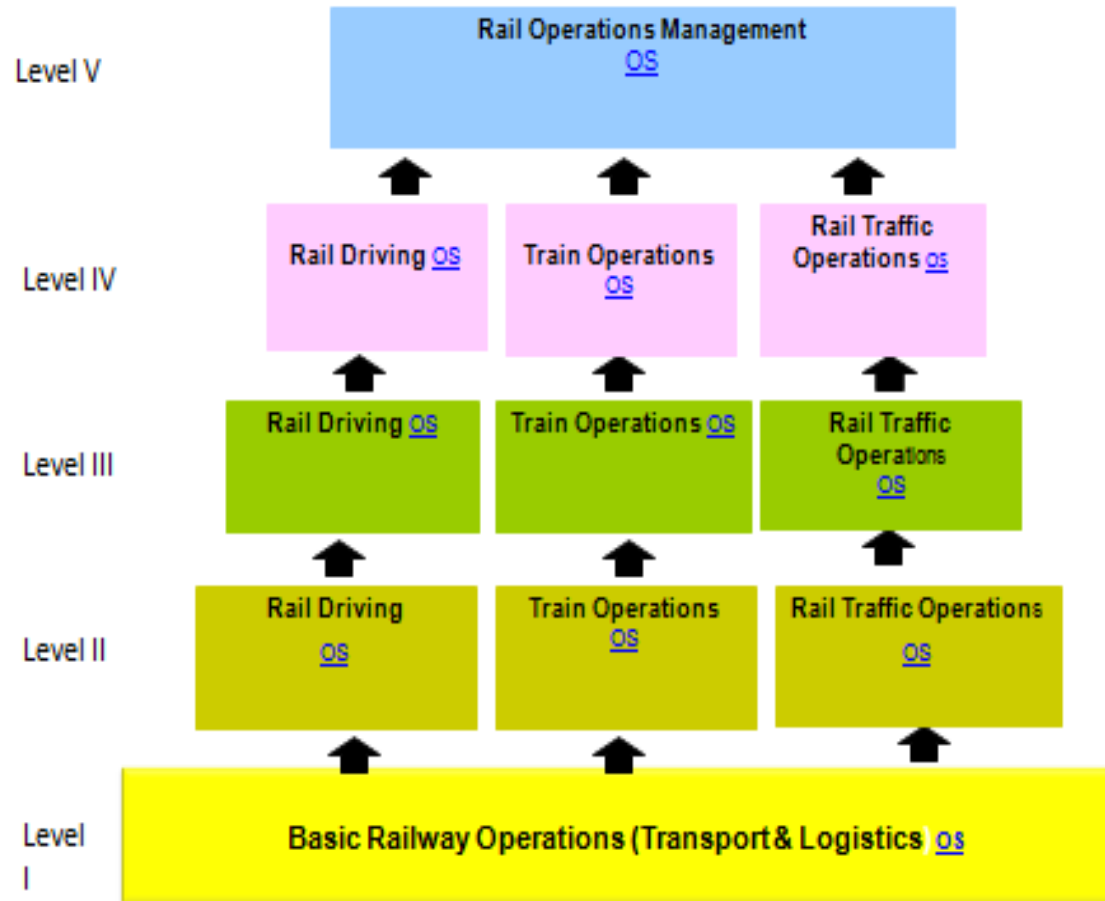
intangible results	<ul style="list-style-type: none"> <li>➤ Quantifiable data</li> <li>• Intangible result may include: <ul style="list-style-type: none"> <li>➤ Qualitative data</li> </ul> </li> </ul>
Various types of diagram	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• Line graph</li> <li>• Bar graph</li> <li>• Pie-chart</li> <li>• Scatter diagram</li> <li>• Affinity diagram</li> </ul>
Standard Operating Procedures (SOPs)	<p>may include but not limited to:</p> <ul style="list-style-type: none"> <li>• The customer demand</li> <li>• The most efficient work routine (steps)</li> <li>• The cycle times required to complete work elements</li> <li>• All process quality checks required to minimize defects/errors</li> <li>• The exact amount of work in process required</li> </ul>

### Evidence Guide

Critical Aspects of Assessment	<p>Demonstrates skills and knowledge competencies to:</p> <ul style="list-style-type: none"> <li>• Apply all relevant procedures and regulatory requirements to ensure quality and productivity of an organization.</li> <li>• Detect non-conforming products/services in the work area</li> <li>• Apply effective problem solving approaches/strategies.</li> <li>• Implement and monitor improved practices and procedures</li> <li>• Apply statistical quality control tools and techniques.</li> </ul>
Underpinning Knowledge and Attitude	<p>Demonstrates knowledge of:</p> <ul style="list-style-type: none"> <li>• QC story/PDCA cycle/</li> <li>• QC story/ Problem solving steps</li> <li>• QCC techniques</li> <li>• 7 QC tools</li> <li>• Basic IE tools and techniques.</li> <li>• SOP</li> <li>• Quality requirements associated with the individual's job function and/or work area</li> <li>• Workplace procedures associated with the candidate's regular technical duties</li> <li>• Relevant health, safety and environment requirements</li> </ul>

	<ul style="list-style-type: none"> <li>• organizational structure of the enterprise</li> <li>• Lines of communication</li> <li>• Methods of making/recommending improvements.</li> <li>• Reporting procedures</li> </ul>
Underpinning Skills	<p>Demonstrates skills to:</p> <ul style="list-style-type: none"> <li>• Apply problem solving techniques and tools</li> <li>• Apply statistical analysis tools</li> <li>• Apply Visual Management Board/Kaizen Board.</li> <li>• Detect non-conforming products or services in the work area</li> <li>• Document and report information about quality, productivity and other kaizen elements.</li> <li>• Contribute effectively within a team to recognize and recommend improvements in quality, productivity and other kaizen elements.</li> <li>• Implement and monitor improved practices and procedures.</li> <li>• Organize and prioritize activities and items.</li> <li>• Read and interpret documents describing procedures</li> <li>• Record activities and results against templates and other prescribed formats.</li> </ul>
Resources Implication	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Methods of Assessment	<p>Competence may be assessed through:</p> <ul style="list-style-type: none"> <li>• Interview / Written Test</li> <li>• Observation / Demonstration with Oral Questioning</li> </ul>
Context of Assessment	Competence may be assessed in the work place or in a simulated work place setting.

# Railway Transport Operations





## Acknowledgement

We wish to extend thanks and appreciation to the many representatives of business, industry, academe and government agencies who donated their time and expertise to the development of this occupational standard.

We would like also to express our appreciation to the Staff and Experts of Ethiopian Railways Corporation (EIS), Ministry of Education (MoE) who made the development of this occupational standard possible.

This occupational standard was finalized on February 2013 at Addis Ababa, Ethiopian Red Cross Training Center.

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### COMMENT TEMPLATE

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