

Unit ID: 1461

**Domain
Title:**

**METALLURGICAL PROCESSING -CORE
Transfer bulk fluids into and out of
storage facility**

Level: 2

Credits: 8

Purpose

This unit standard is intended for those who carry out metallurgical processing operations. People holding credit for this unit standard are able to: Plan and prepare for transfer of bulk fluids; prepare storage or transfer facilities; monitor storage facilities; monitor load-out or transfer platform or facility as required; conduct load-out or transfer; and complete duties pertaining to the transfer of bulk fluids.

Special Notes

1. Entry information:

Prerequisite

- 1449 - *Comply with health, safety and environmental rules and regulations pertaining to processing operations; or demonstrated equivalent knowledge and skills.*

2. Assessment evidence may be collected from a real workplace or a simulated workplace in which processing operations are carried out.

3. Safe working practices include day-to-day observation of safety policies and procedures and compliance with emergency procedures.

4. Specifications refer to any, or all of the following: manufacturer's specifications and recommendations, and workplace specific requirements.

5. Performance of all elements in this unit standard must comply with relevant regulatory, legislative, workplace requirements and/or manufacturers' specifications.

6. Regulations and legislation, including subsequent amendments, relevant to this unit standard may include but are not limited to the following:

- Labour Act, No. 11, 2007
- Mineral Act, No. 33, 1992
- Mine Health and Safety Regulations, 1999
- Regulations relating to the Health and Safety of employees at work, 1997 and all industry specific regulations, legislations, code of practice, or code of conduct.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the

national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website www.nta.com.na.

Elements and Performance Criteria

Element 1: Plan and prepare for transfer of bulk fluids

Performance Criteria

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, explained, clarified and applied to the allocated task.
- 1.2 Safety and security requirements, including personal protective clothing and equipment are obtained from the site safety plan, workplace policies and procedures, explained, and applied to the allocated task.
- 1.3 Equipment, tools, lubricants, attachments and accessories selected to carry out tasks are checked for consistency with the requirements of the job, their usability and any faults rectified or reported prior to commencement of work.
- 1.4 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.5 Work area is inspected and prepared according to workplace procedures.

Element 2: Prepare storage or transfer facilities

Range

Products may include but are not limited to hydrocarbons; oil; gas or bulk liquid chemicals and petrochemicals.

Performance Criteria

- 2.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 2.2 Products within the tank farm or at the platform are managed according to workplace storage types, products and locations.
- 2.3 Storage or docking facilities are inspected for leaks or damage.
- 2.4 Safety systems are checked and tested to verify their operational condition and status.
- 2.5 If necessary, corrective and/or reporting actions are taken according to workplace procedures.
- 2.6 Equipment maintenance requirements are identified and reported according to workplace procedures.

Element 3: Monitor storage facilities

Range

Conditions may include but are not limited to operational condition and status of the storage facilities.

Performance Criteria

- 3.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 3.2 Tank mixes, capacities and quality are confirmed in line agreed product requirements prior to transfer.
- 3.3 Gas detection and other safety systems are monitored to ensure the storage area is a safe environment.
- 3.4 Storage conditions are communicated to transfer or other personnel.

Element 4: Monitor load-out or transfer platform or facility as required

Performance Criteria

- 4.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 4.2 Load-out and transfer systems on the platform, terminal load-out, or transfer area are monitored according to workplace requirements.
- 4.3 Gas detection and other safety systems are monitored to ensure the storage area is a safe environment.
- 4.4 Appropriate personnel is informed of the load-out or transfer area status.

Element 5: Conduct load-out or transfer

Performance Criteria

- 5.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 5.2 Operational status is communicated to required personnel prior to loading according to workplace procedures.
- 5.3 Start-up permissions are obtained and confirmed prior to product transfer.
- 5.4 Pump flow rates are set and adjusted to keep within agreed capacities.
- 5.5 Loading pump performance is monitored to keep within stated operational ranges and vibration limits.

- 5.6 Product shipping or transfer samples are recorded according to workplace procedures.

Element 6: Complete duties pertaining to the transfer of bulk fluids

Range

Housekeeping may include but is not limited to ensure the work area is ready for next user; remove work materials to designated locations; correctly identify waste and re-usable material; and remove waste and re-usable materials to designated locations.

Performance Criteria

- 6.1 Task-specific tools, personal protective and safety equipment, are cleaned, maintained and stored for further use according to workplace procedures.
- 6.2 Good housekeeping practices are maintained according to workplace procedures.
- 6.3 Reporting and recording requirements are met according to workplace procedures.
- 6.4 Work related documents are completed according to job requirements and workplace procedures.

Registration Data

Subfield:	Metallurgy
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