

Domain**HYDROMETALLURGICAL PROCESSING****Title:****Conduct pipeline pigging****Level: 3****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 pipeline pigging; demonstrate knowledge relating to the pipeline pigging process; launch and receive pig, and monitor progress; interpret pigging data; and complete duties pertaining to pigging operation.

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 pipeline pigging

Performance Criteria

- 1.1 Work instructions, including plans, flow conditions in the pipeline, 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 Specified pig, equipment, tools, 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 Pipeline and specified pig are prepared for pigging operations according to workplace procedures.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.6 Work area is inspected and prepared according to workplace procedures.

Element 2: Demonstrate knowledge relating to the pipeline pigging process

Performance Criteria

- 2.1 The actions and conditions pertaining to a safe, healthy environment in the pipeline pigging process are described.
- 2.2 The importance of pipeline pigging is described in terms of achieving specified production requirements.
- 2.3 Hazards and associated risks are identified through relevant risk assessment procedures.
- 2.4 The principal components of the pipeline pigging system are identified and their functions described in terms of design and operational requirements.
- 2.5 The elementary principles of the pipeline pigging process are described.
- 2.6 The communication requirements pertaining to the pipeline pigging process are described.
- 2.7 Corrective actions, in case of sub-standard conditions and problems be encountered, are described.

Element 3: Launch and receive pig, and monitor progress

Performance Criteria

- 3.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 3.2 The launching and receiving of scraper barrels, and the intermediate site for launching and receiving operations, are prepared according to workplace procedures.
- 3.3 The pig is loaded into the scraper according to manufacturer's specifications.
- 3.4 Pig travel speed is calculated during the pig's progress.
- 3.5 Progress of the pig in the pipeline system is tracked and monitored according to workplace procedures.
- 3.6 Pig is received according to workplace procedures.

Element 4: Interpret pigging data

Performance Criteria

- 4.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 4.2 The received pig is inspected to determine wear and/or other required information according to workplace procedures.
- 4.3 Waste material gathered during pigging operations is inspected, measured and/or sampled according to workplace procedures.
- 4.4 If necessary, appropriate corrective and/or reporting actions are taken according to workplace procedures.
- 4.5 Data are recorded to assist with the assessment of pipeline condition.

Element 5: Complete duties pertaining to pigging operation

Performance Criteria

- 5.1 Waste material is disposed of according to environmental protection requirements and workplace procedure.
- 5.2 Good housekeeping practices are maintained according to workplace procedures.
- 5.3 Reporting and recording requirements are met according to workplace procedures.
- 5.4 Work related documents are completed according to job requirements and workplace procedures.

Registration Data

Subfield:	Metallurgy
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