

Unit ID: 1490

Domain

**METALLURGICAL PROCESSING - CORE**

Title:

**Isolate and lock-out plant and equipment**

Level: 3

Credits: 10

### Purpose

This unit standard is intended for those who carry out metallurgical processing operations. People holding credit for this unit standard are able to: Determine plant and equipment isolation and lock-out; isolate and lock-out plant and equipment; complete permit-to-work form; and return plant and equipment to service.

### 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. This unit standard may be assessed in a holistic way with other relevant technical unit standards selected from the metallurgical processing, mineral processing, hydrometallurgy, or pyrometallurgy domain.

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

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

6. Performance of all elements in this unit standard must comply with relevant regulatory, legislative, workplace requirements and/or manufacturers' specifications. Expected worksite targets are to be met.

7. 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](http://www.nta.com.na).

## **Elements and Performance Criteria**

### **Element 1: Determine plant and equipment isolation and lock-out**

#### **Range**

Hazards may include but are not limited to high voltage switchgear; dust and water; power lines; overhead service lines; obstructions; structures; other equipment or vehicles; and dangerous material.

Preventive strategies may include but are not limited to locks; tags; barriers; high voltage gloves; rubber mat or non-conductive platform; and other site prescribed clothing apparel.

#### **Performance Criteria**

- 1.1 Relevant documentation associated with the isolation and lock-out of plant and equipment are accessed, interpreted, and applied.
- 1.2 Item of plant and equipment and work to be carried out are identified, recorded, and confirmed.
- 1.3 Written or oral permit procedures are applied according to workplace procedures.
- 1.4 Hazards and risks to self, others, and the environment are identified and preventive strategies implemented.
- 1.5 Permit clearance is obtained prior to commencement of work according to workplace procedures.

### **Element 2: Isolate and lock-out plant and equipment**

#### **Performance Criteria**

- 2.1 Coordination requirements with others at the site are resolved prior to commencing and during isolation and lock-out activities.
- 2.2 Safe working area is established and maintained according to legislative requirements and workplace procedures.
- 2.3 Isolation of all required energy sources and immobilisation of potential energy sources are carried out in accordance with permit and/or workplace procedures.
- 2.4 Locks and tags are placed on isolation devices in accordance with permit and/or workplace procedures.

- 2.5 Breaches in permit procedure safety are identified and reported to authorized personnel according to workplace procedures.

### **Element 3: Complete permit-to-work form**

#### **Performance Criteria**

- 3.1 Statement of isolation and lock-out are prepared according to permit and/or workplace procedures.
- 3.2 Sign-on and sign-off requirements are completed according to workplace procedures.
- 3.3 Plant and equipment hand-over is carried according to workplace procedures.

### **Element 4: Return plant and equipment to service**

#### **Performance Criteria**

- 4.1 Coordination requirements with others at the site are resolved prior to commencing and during de-isolation and lock-out activities.
- 4.2 Confirmation that work has been completed and is ready for return to service is received.
- 4.3 Designated work area to be completed is checked according to permit and/or workplace procedures.
- 4.4 Locks and tags are removed from isolation devices according to permit and/or workplace procedures.
- 4.5 Energy sources are restored according to workplace procedures.
- 4.6 Situations, which may have endangered self, others, and/or the environment are identified and corrected, or reported.
- 4.7 Cancellation of all permits is confirmed before plant is brought back into operation.

### **Registration Data**

<b>Subfield:</b>	Metallurgy
<b>Date first registered:</b>	28 September 2016
<b>Date this version registered:</b>	28 September 2016
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<b>Body responsible for review:</b>	Namibia Training Authority