

**Domain****SOLAR INSTALLATION****Title:****Apply safety rules and regulations in a solar energy installation environment****Level: 1****Credits: 3****Purpose**

This unit standard specifies the competencies required to apply safety rules and regulations. It includes the following elements; Follow safety practices; Observe fall and trip safety prevention; Use ladder safety; Perform lifting safety procedures. This unit standard is intended for those who work in a solar energy installation environment.

**Special Notes**

1. This unit standard is to be delivered and assessed in the context of solar energy system operations and should be assessed in conjunction with other relevant technical unit standards selected from this domain.
2. To demonstrate competence, at a minimum, evidence is required of locating and interpreting safety signage, assessing risks in a simulated risk situation, selecting and correctly using fire-fighting equipment to extinguish a simulated mechanical fire and evacuating a workshop through simulated response to an emergency complying with workplace procedures.
3. Assessment evidence may be collected at a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which solar system operations are carried out.
4. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' and companies' guidelines and instructions.
5. 'Specifications' refers to any, or all of the following: manufacturers' specifications and recommendations, workplace specific requirements.
6. Regulations and legislation relevant to this unit standard include the following:
  - Labour Amendment Act, 2012 (Act No. 2 of 2012)
  - SANS 10142-1 and SANS 10142-2 electrical wiring codes
  - IEC 60061.
  - IEC 61360.

and all subsequent amendments to any of the above.

## **Quality Assurance Requirement**

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 on [www.namqa.org](http://www.namqa.org) and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na).

## **Elements and Performance Criteria**

### **Element 1: Follow safety practices**

#### **Range:**

The fundamental character of safety practices and their application includes knowledge of potential dangers and measures of protection.

#### **Performance criteria**

- 1.1 Personal protective equipment is selected, worn and stored according to job requirements and workplace procedures.
- 1.2 Safe work procedures are adhered to in line with workplace procedures.
- 1.3 Tasks are performed in a safe manner and in accordance with workplace requirements, policies and procedures.
- 1.4 Safety signs and symbols are identified and followed in line with workplace procedures.
- 1.5 Plant and equipment guards are identified and used in accordance with manufacturers' specifications.
- 1.6 Safe manual handling procedures are identified and implemented in line with workplace procedures.
- 1.7 Safety procedures for the use of chemicals are implemented in line with workplace procedures.

### **Element 2: Observe fall and trip safety prevention**

#### **Range:**

Fall and trip safety protection includes knowledge of hazards associated with working in elevated spaces and measures of accident prevention.

#### **Performance criteria**

- 1.1 Hazards associated with working on roofs and falling are explained.
- 1.2 The definitions of fall protection and the different fall-protection systems are performed.
- 1.3 Basic introduction to implementing fall-protection systems is performed.
- 1.4 Recovering from roof and fall-related accidents is explained.

### **Element 3: Use ladder safety**

#### **Range:**

Ladder safety use includes knowledge of ladder safe handling and storage.

#### **Performance criteria**

- 3.1 The hazards associated with ladder use are explained.
- 3.2 Selecting the proper ladder for the job is explained.
- 3.3 Inspection of ladders prior to use is performed.
- 3.4 Setup and securing the ladder properly is performed.
- 3.5 Recovering from ladder accidents is explained.

### **Element 4: Perform lifting safety procedures**

#### **Range:**

Lifting safety procedures includes knowledge about dangers associated with hoisting of items to elevated spaces.

#### **Performance Criteria**

- 4.1. The hazards associated with lifting are explained.
- 4.2. Effective lifting techniques are demonstrated.
- 4.3. Recovering from lifting-related accidents is explained.

#### **Registration Data**

<b>Subfield:</b>	Electrical Engineering
<b>Date first registered:</b>	28 March 2018
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<b>Anticipated review:</b>	2023

<b>Body responsible for review:</b>	Namibia Training Authority
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