

Unit ID: FM007

Domain

MAINTENANCE OPERATIONS

Unit Title:

Maintain solar thermal and photovoltaic system

Level: 1

Credits: 3

Purpose

This unit standard is intended for those who carry out facility maintenance operations. People holding credit for this unit standard are able to: Plan and prepare for work; Inspect solar panels and accessories; Clean solar panels; and Clean up work area.

Special Notes

1. Assessment evidence may be collected from a real workplace or a simulated workplace in which facility maintenance operations are carried out.
 - The candidate is required to adhere to safe working practices throughout all elements, which may include but are not limited to day-to-day observation of safety policies and procedures, compliance with emergency procedures, and fire fighting procedures.
2. Specifications refer to any, or all of the following: manufacturer's specifications and recommendations, and workplace specific requirements.
3. Performance of all elements in this unit standard must comply with relevant regulatory, legislative, and workplace requirements, manufacturers' specifications, and/or best industry practice.
4. 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;
 - 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 work

Range

Tools and equipment may include but are not limited to ladders; scaffolding; safety equipment; and water.

Performance Criteria

- 1.1 Work instructions, including specifications and operational details are obtained, explained, clarified and applied to the allocated task.
- 1.2 Potential hazards are identified, minimised or eliminated.
- 1.3 Safety and security requirements, including personal protective clothing and equipment are obtained and applied to the allocated task.
- 1.4 The correct tools and equipment are selected according to job requirements and workplace procedures.
- 1.5 Spot sheets are placed where required and adjoining surfaces and/or items are protected from spills and splashes.

Element 2: Inspect solar panels and accessories

Range

Solar panels include solar thermal and solar photovoltaic panels.

Signs of damage may include but are not limited to cracks or chips in the glass, discolouration or other obvious defects.

Accessories may include but are not limited to fittings; cables; inverters; and isolator switches.

Performance Criteria

- 2.1 Solar panels are visually inspected for signs of damage according to manufacturer's instructions.
- 2.2 The firm secured installation of solar panels and supporting frames is ensured in accordance with manufacturer's instructions.
- 2.3 Accessories are checked for tightness and function.

- 2.4 Shading of the solar panels is minimised or eliminated by cutting back trees or removing of structures in line with workplace procedures.

Element 3: Clean solar panels

Performance Criteria

- 3.1 Secure access to solar panels is established.
- 3.2 Solar panels are cleaned with water according to manufacturer’s instructions.
- 3.2 Safe working procedures are observed.

Element 4: Clean up work area

Performance Criteria

- 4.1 Tools and equipment are maintained and stored according to best industry practice and workplace procedures.
- 4.2 Waste are removed and disposed of in accordance with legal requirements and workplace procedures.
- 4.3 Workplace documents are completed.

Registration Data

Subfield:	Facility Maintenance
Date first registered:	
Date this version registered:	
Anticipated review:	
Body responsible for review:	Namibia Training Authority