

Domain	BROADCASTING	Unit ID:2260
Title:	Demonstrate an understanding of lightning arrestors	
Level: 3		Credits: 6

Purpose

This unit standard is intended for those who demonstrate an understanding of lightning arrestors. People credited with this unit standard are able to identify the types of lightning arrestors, identify and use different types of equipment for setting up lightning arrestors, demonstrate an understanding of lightning arrestor installations and maintain lightning arrestors.

This unit standard is intended for those who work in the broadcasting working environment.

Special Notes

1. Entry information:

Prerequisites:

- None

2. This unit standard is to be delivered and assessed in the context of information and communication technology.

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

4. Tools and equipment may include but are not limited to computer, external devices, storage devices and other and basic computer applications.

5. Performance of all elements in this unit standard must comply with industry standards.

6. Regulations and legislation relevant to this unit standard include the following:

- Labour Act 2007(Act No 11, 2007)
- Regulations relating to the health and & Safety of employees at work under Schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this sub-field 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 and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Identify the types of lightning arrestors

Performance Criteria

- 1.1 Road gap arrester is explained and described.
- 1.2 Sphere gap arrester is explained and described.
- 1.3 Horn gap arrester is explained and described.
- 1.4 Multiple-gap arrester is explained and described.
- 1.5 Impulse protective gap is explained and described.
- 1.6 Electrolytic arrester is explained and described.
- 1.7 Expulsion type lightning arrester is explained and described.
- 1.8 Valve type lightning arresters is explained and described.
- 1.9 Thyrite lightning arrester is explained and described.
- 1.10 Auto valve arrester is explained and described.
- 1.11 Oxide film arrester is explained and described.
- 1.12 Metal oxide lightning arresters is explained and described.

Element 2: Identify and use different types of equipment for setting up lightning arrestors

Range

Tools and materials may include but not limited to screwdriver, fasteners, wire strippers and drills

Performance Criteria

- 2.1 Tools and materials for setting up lightning arrestors are identified.
- 2.2 Water proofing to protect the wire is installed

Element 3: Demonstrate an understanding of lightning arrestor installations.

Performance Criteria

- 3.1 Light terminal installation is explained.
- 3.2 Lightning rod installation is explained.
- 3.3 Receiving antennas (TV, radio, telephone) installation is explained.
- 3.4 Cable installation and protection is explained.
- 3.5 Resistance measurement values are determined and described.
- 3.6 Use of quibacsol mineral compound is explained.
- 3.7 Testing of lightning arrestor is described and demonstrated.

Element 4: Maintain lightning arresters

Performance Criteria

- 4.1 Outside of the arrester housing is cleaned.
- 4.2 Lightning line is de-energized.
- 4.3 Earth connection maintenance is explained.
- 4.4 Surge counter readings are recorded.
- 4.5 Line lead maintenance is explained.
- 4.6 Ground lead maintenance is explained.

Registration Data

Subfield:	Information and Communication Technology
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