	Unit ID: 875
Domain	**ELECTROTECHNOLOGY**
Title:	**Demonstrate knowledge of emergency preparedness and response**
Level: 2	**Credits: 3**

Purpose

This unit standard specifies the competencies required to demonstrate knowledge of emergency preparedness and response in an electrotechnology environment. It includes identify and report dangerous situations, demonstrate knowledge of risk prevention and related control procedures, apply knowledge of emergency evacuation procedures, demonstrate knowledge of hazardous substances and associated procedures and employ the safety tag system. This unit standard is intended for those who work in electrotechnology work environment.

Special Notes

1. Entry information:

   Prerequisite

   - Unit 864 - *Apply safety rules and regulations in an electrotechnology environment* or demonstrated equivalent knowledge and skills.

2. This unit standard is to be assessed in the context of electrotechnological operations and should be assessed in conjunction with other relevant technical unit standards selected from this domain.

3. Assessment evidence may be collected at a real workplace or an appropriate simulated realistic environment in which electrotechnological operations are carried out.

4. This unit standard does not cover the special safety practices associated with high voltages or work on power lines.

2. Glossary of terms:

   - *'emergency preparedness and response'* refers to fire, fire prevention, motorized transport, moving machinery, working on heights, flooding, working in confined spaces, radiation, environmental damage and spillages, electrocution and related control and emergency procedures.
   - *'ISO'* refers to International Organization for Standards.

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

6. Regulations and legislation relevant to this unit standard include the following:
   - Labour Act, No. 11, 2007

- Occupational Health and Safety Regulations No. 18, 1997 and all subsequent amendments.
- ISO 14001

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 on www.nta.com.na.

Elements and Performance Criteria

Element 1: Identify and report dangerous situations.

Range

Dangerous situation may include but are not limited to damaged cords and cables, unguarded machines, broken equipment, tools and accessories, signs of overheating, corrosion, untidy conditions and cables, accumulated rubbish, oil spills, trailing cords hazardous substances, radioactive sources, fire, motorized transport, moving machinery, working on heights, handling of lifting equipment, flooding, working in confined spaces, radiation, electrocution risks as well as environmental spillages and damages.

Performance Criteria

1.1 Workplace security, safety, health and environmental policies and/or procedures are identified.

1.2 Dangerous situations are identified in accordance with relevant work procedures.

1.3 Dangerous situations are reported in accordance with company requirements.

1.4 Work situations in which at least two competent persons are required for safety reasons are identified in accordance with safe working practice.

Element 2: Demonstrate knowledge of risk prevention and control procedures.

Range

Possible causes of risk may include but not limited to wood, paper, or textiles; flammable liquids; live electrical equipment, motorized transport, moving machinery, working on heights, use of lifting equipment, working in confined spaces, working with or moving radioactive sources, oils and lubricants.

Fire extinguishing equipment may include fire truck, fire reel, fire extinguishers and manual fire fighting instruments.

Performance Criteria

2.1 Possible cause of fire and other risks in own workplace is identified.

2.2 Fire extinguishers suitable for different types of fire are identified and located in the work area.

2.3 Use of fire extinguishers is demonstrated according to manufacturer's operating instructions.

2.4 Company fire-fighting procedures are described, in terms of own responsibility.

Element 3: Apply knowledge of emergency evacuation procedures.

Range

Appropriate personnel to be contacted in case of an emergency, accident, incident, fire or to report a risk are designated safety officers, determined by the company, who have undertaken specific safety response training, supervisors, managers or other senior personnel.

Emergency procedures may include but are not limited to extinguishing fires, organisational first aid requirements, evacuation procedures and freeing affected person from live circuit.

Performance Criteria

3.1 Workplace security, safety, health and environmental policies and/or procedures are followed.

3.2 Exit points, escape routes, and assembly points are identified.

3.3 Appropriate evacuation procedures are identified and followed in accordance with company requirements.

3.4 Appropriate personnel are identified and notified in the event of an emergency in line with workplace procedures.

3.5 Safe work place procedures for dealing with accidents and incidents, fires and emergencies are followed within scope of responsibilities and workplace procedures.

3.6 Appropriate knowledge of emergency and evacuation procedures is applied.

Element 4: Demonstrate knowledge of hazardous substances and associated procedures.

Range

Hazardous substances may include but are not limited to sodium and mercury from metal vapour lamps, Ferro-Silicon (FeSi), Acids, Berrilium, Cs137(radiation sources), Cobalt (Radiation sources), X-ray’s, polychlorinated biphenyls (PCB) from older transformers and capacitors, any other hazardous substances present at own work site

Performance Criteria

4.1 Hazardous substances at the work site are identified.

4.2 Company requirements for reporting, removing, handling, storing, and disposing of hazardous substances are described.

4.3 Spills of hazardous substances are immediately dealt with in accordance with company requirements.

4.4 Symbols warning of the presence of radiation and lasers are identified.

4.5 The dangers and safeguards associated with working in the presence of radiation and lasers are explained.

Element 5: Employ the safety tag system.

Range

Tags used may include but are not limited to danger, warning, beware, caution tags; out-of-service tags; hold cards and in-house tags used for the same effects.

Performance Criteria

5.1 Different types of tags are identified in terms of purpose and use.

5.2 The safety tag system is employed in accordance with safe working practice.

5.3 The multiple-trade and multiple-tag systems are employed in accordance with safe working practice.

Registration Data

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