

Unit ID: 567

Domain

**AIR CONDITIONING AND
REFRIGERATION**

**Title: Apply health and safety routines in an air
conditioning and refrigeration workplace**

Level: 1

Credits: 2

Purpose

This unit standard specifies the competencies required to apply health and safety routines in an air conditioning and refrigeration workplace. It includes following safe working and emergency procedures, assessing risks, demonstrating and applying knowledge of lockout procedures, and using ladders. This unit standard is intended for those who work as an air conditioning and refrigeration mechanics.

Special Notes

1. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which air conditioning and refrigeration operations are carried out.
2. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' specifications and/or company's guidelines and instructions.
3. Glossary of terms:
 - '*specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, workplace specific requirements.
4. 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.
5. Performance of all elements in this unit standard must comply with industry standards.
6. This unit standard applies to single-phase and three-phase air conditioning and refrigeration systems.

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: Plan and prepare for work.

Performance Criteria

- 1.1 Work instructions, including job cards, specifications and operational details are obtained, confirmed and applied.
- 1.2 Workplace inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements is carried out.
- 1.3 Safety requirements are followed in line with safety plans and policies.
- 1.4 Equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults rectified or reported prior to commencement.
- 1.5 Material requirements are identified and obtained in line with job card and/or specifications.
- 1.6 Materials are safely handled and located ready for use in line with workplace procedures.
- 1.7 Technical and/or calibration requirements for tools and equipment are sourced and implemented in line with workplace procedures.
- 1.8 Environmental protection requirements are identified and applied in line with environmental plans and regulatory obligations.

Element 2: Follow safe work procedures.

Range

Personal protective equipment may include but are not limited to overalls, steel capped boots, jacket, gloves, safety glasses or goggles, cap, dust mask or respirator, ear muffs or plugs.

Signs may include but are not limited to hazard identification, facility or location signs, site safety, traffic and warning signs and symbols.

Performance Criteria

- 2.1 Tasks are performed in a safe manner and in line with legislative and workplace requirements and procedures.
- 2.2 Organisation of duties, tools, equipment and materials is performed in line with workplace procedures.
- 2.3 Workplace security policies and/or procedures are identified and followed.

- 2.4 Personal protective equipment and clothing is worn, used and stored in line with workplace procedures.
- 2.5 Tool and equipment guides are used in line with manufacturers' and workplace specifications and regulations.
- 2.6 Safety signs and symbols are identified and followed in line with workplace procedures.

Element 3: Assess risks.

Range

Hazards may include but are not limited to chemical spills, gases, liquids under pressure, moving machinery and equipment, hazardous materials, work in confined spaces, manual handling, high temperatures, noise, dust, vapours, fires, sharp equipment and traffic.

Performance Criteria

- 3.1 Hazards in the work area are identified, assessed and appropriate personnel notified in line with workplace procedures.
- 3.2 Safety issues and risks in the work area are identified, assessed and appropriate personnel notified in line with workplace procedures.
- 3.3 Safe workplace procedures and safe work instructions are followed for controlling risks.
- 3.4 Safety, hazard, accident or incident reports are contributed to in line with workplace and legislative requirements.

Element 4: Follow emergency procedures.

Range

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

Emergency procedures are to include but are not limited to, extinguishing fires, organisational first aid requirements and evacuation procedures.

Types of fire may include but are not limited to electrical, chemical, gas, mechanical, paper, wood or natural fire.

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

Performance Criteria

- 4.1 Appropriate personnel are identified in the event of an emergency in line with workplace procedures.
- 4.2 Safe work place procedures for dealing with accidents, fires and emergencies are followed within scope of responsibilities and workplace procedures.
- 4.3 Emergency and evacuation procedures are practiced and carried out when required.

Element 5: Demonstrate and apply knowledge of lockout procedures.

Range

Lockout procedures include legislative and workplace requirements.

Performance Criteria

- 5.1 Circuit breakers are switched off in line with workplace procedures.
- 5.2 Where applicable, fuses are pulled out in line with workplace procedures.
- 5.3 Lock with identification tag at power source is put on in line with workplace procedures.
- 5.4 Verification of no-start equipment is demonstrated.
- 5.5 Procedures for zero-voltage test are explained in line with workplace procedures.

Element 6: Demonstrate use of ladders.

Range

Ladders may include but are not limited to step ladder, single ladder, extension ladder and trestle ladder.

Ladder maintenance may include but is not limited to defect identification such as cracks, splinters, loose hinges, damage, missing parts, deterioration, operation of working parts and bending.

Performance Criteria

- 6.1 Ladder defects are identified in line with safe working practices.
- 6.2 Ladders are selected, erected and used to meet job requirements in line with workplace procedures.
- 6.3 Ladders are handled, maintained and stored in safe condition in line with workplace procedures.

Element 7: Complete work and clean up.

Range

Work completion details may include but is not limited to accident report forms.

Performance Criteria

- 7.1 Work is completed and appropriate personnel notified in line with work place procedures.
- 7.2 Work area is cleared of waste, cleaned, restored and secured in line with workplace procedures.
- 7.3 Reusable material is collected and stored in line with workplace procedures.
- 7.4 Tools and equipment are cleaned, checked and maintained in line with workplace procedures.
- 7.5 Work completion details are finalised in line with workplace procedures.

Registration Data

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| Subfield: | Mechanical Engineering |
| Date first registered: | 27 May 2010 |
| Date this version registered: | 27 May 2010 |
| Anticipated review: | 2014 |
| Body responsible for review: | Namibia Training Authority |