

# LANLEO1 - SQA Unit Code F9GJ 04

## Recognise and reduce hazards in the land-based engineering work area



### Overview

This standard covers the basic health, safety and environmental responsibilities in a land-based engineering context.

#### **Recognise and reduce hazards in the work place**

This standard includes being able to identify and deal correctly with hazards that may be encountered in the workplace and on site, which includes on employers' premises, on customers' premises and transport, e.g. employees' hours, fatigue, lone working, safe loading and hazardous materials/loads. Hazards include those arising from the use of tools, equipment and components and those arising from the immediate work area, e.g.

1. working on contaminated machinery
2. working with substances hazardous to health
3. removing and replacing guards
4. removing fire, slip and trip hazards
5. securing objects in danger of falling
6. removing fumes, dust, hazardous gases and vapours
7. releasing stored pressure
8. working in elevated and confined conditions
9. handling pressured gas cylinders and stored gases
10. working with electricity.

Hazard checking methods include sensory inspections (see glossary) and use of risk assessment sheets. Action taken in response to identified hazards could include isolation of hazards, stopping activities and reporting to the appropriate person. This standard also includes lifting and moving loads either manually or using equipment.

#### **Identify and deal with emergencies in the work area**

This standard covers how to respond appropriately to an emergency situation, for example, an accident, injury, fire or dangerous occurrence. It also includes near misses (for example when an accident or other emergency nearly happened).

#### **Contribute to the reduction of the environmental impact of work activities**

This standard covers awareness of environmental issues and how to reduce the impact of work activities. It includes applying work practices which will reduce the risk of environmental damage, e.g. recovery of refrigerant gases, cleaning of chemical application machinery, recovery of oils, and fuels, liquid ballast, selection of non-toxic substances.

It covers the handling and storage of environmentally sensitive materials, e.g. chemical cleaners, fuels, gases, lubricants, paints, thinners, battery acid, coolants. It also includes the disposal of different types of material including

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harmful substances and gases, non-toxic waste, recyclable materials and non-recyclable materials.

#### **Level and extent of responsibility**

This standard is for those with and without the supervision of a more competent member of staff and within a framework of health and safety and environmental policies and procedures devised and adopted by the employing organisation.

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### Performance criteria

*You must be able to:*

#### **Recognise and reduce hazards in the work area**

- P1 undertake your responsibilities as laid out in the organisation's health and safety policy
- P2 work safely, cleanly and tidily at all times, complying with health and safety and other relevant regulations and guidelines
- P3 recognise personal limitations, industrial processes, tools, equipment and materials that have the potential to cause harm
- P4 Select and use the appropriate personal protective equipment (PPE) required to complete a task
- P5 check for hazards in the work area in line with agreed and approved procedures
- P6 carry out environmental and health and safety risk assessments
- P7 take appropriate actions to minimise identified environmental and health and safety risks
- P8 report and record hazards identified and outline any actions you have taken using the appropriate methods laid down in the organisation's health and safety framework
- P9 communicate any health and safety precautions that are being applied in the work area to others entering the area
- P10 safely assess and move loads to include, lifting, jacking, supporting raised loads

*You must be able to:*

#### **Identify and deal with emergencies in the work area**

- P11 implement procedures safely, correctly and without delay in an emergency situation
- P12 take appropriate action to minimise risk of personal and third party injury
- P13 identify and use appropriate fire fighting equipment
- P14 take action to inform appropriate people
- P15 follow shutdown and evacuation procedures correctly
- P16 use warning systems and barriers as appropriate
- P17 take the appropriate actions to contain and clean up spillages with safety consequences

*You must be able to:*

#### **Contribute to the reduction of the environmental impact of work activities**

- P18 recognise harmful and toxic substances
- P19 apply work practices which will reduce the risk of environmental damage
- P20 handle and store environmentally sensitive materials
- P21 clearly label stored resources for further use
- P22 dispose of waste materials arising from work activities in accordance with

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company procedures, the current laws and regulations taking account of any recycling opportunities

P23 deal with spillages and leakages which may lead to pollution and contamination

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### Knowledge and understanding

*You need to know and understand:*

#### **Recognise and reduce hazards in the work area**

- K1 your personal and the organisation's responsibilities and rights under current health and safety legislation
- K2 how to recognise and interpret the meaning of international safety signs and warning symbols
- K3 the organisation's health and safety policy and procedures
- K4 how to carry out environmental and health and safety risk assessments in your work area
- K5 your personal and the organisational procedures for minimising the risks associated with these hazards
- K6 the organisation's safety reporting and recording procedures and requirements
- K7 the correct type of personal protective equipment (ppe)
- K8 safe methods of lifting, moving and supporting loads
- K9 the safe handling of gases and compressed gas cylinders and their storage
- K10 safe working with electricity

*You must be able to:*

#### **Identify and deal with emergencies in the work area**

- K11 the types of accidents or incidents which may occur and the correct actions to take
- K12 your organisation's procedures for first aid including location of first aider and first aid equipment both on and off site
- K13 the evacuation procedures for your work area
- K14 different types of fires and application of fire fighting equipment
- K15 your organisations procedures for reporting and recording accidents and incidents
- K16 action to take to minimise risk of personal and third party injury including use of warning systems and barriers
- K17 how to shutdown and isolate equipment
- K18 how to contain and clean up spillages

*You must be able to:*

#### **Contribute to the reduction of the environmental impact of work activities**

- K19 the laws and regulations in relation to minimising damage to the environment
- K20 how to reduce the damage that work activities may cause to the environment
- K21 methods and procedures of handling and storing hazardous materials
- K22 methods of reducing energy consumption relative to your work area

### Glossary

K23 waste disposal methods and procedures (including recycling)

#### **Hazard**

A 'hazard' is something that could cause harm to yourself or someone else.

#### **Risk**

A 'risk' is the likelihood of hazard actually causing harm.

#### **Sensory inspections**

'Sensory inspections', means visual checks, checking by touch where appropriate, noticing unusual noises or unusual smells (such as burning).

#### **Resources**

'Resources' refers to buildings, materials and equipment used as part of work activities.

#### **Equipment**

'Equipment' may be fixed or moveable.

#### **Equipment faults**

'Equipment faults' would include faults with tools and equipment being used to carry out work and faults with equipment being worked on.

#### **Hazards arising from the environment**

'Hazards arising from the environment' would include hazards encountered due to the location of surroundings where the work is being carried out or the nature of the equipment being worked on, e.g. bad lighting, fumes, spillages, chemicals and solids applied by land-based machinery etc.

#### **COSHH**

'COSHH' Control of Substances Hazardous to Health

#### **Appropriate people**

'Appropriate people' include emergency services, line managers, colleagues, doctor, and company health and safety officer.

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