

EUSDSG3.50

Carry out safe electrical working practices on electrical control (and supply) for mechanical building services systems



Overview

This unit is for people who are required to disconnect and/or dismantle systems and components with an electrical supply for,

1. Refrigeration
2. Air Conditioning
3. Heating
4. Ventilation
5. Hot and Cold water

This unit is about following the correct procedures when making safe mechanical building services systems/components/equipment for disconnection from an electrical supply, using methods and practices compliant with the relevant regulations, codes of practice and industry approved standards.

They need to show an understanding of safe isolation procedures, risk assessment and methods of determining the presence or not of an electrical supply.

By the very nature of the hazardous working environment and working conditions it is important to remember that the activities undertaken by the operative shall;

1. be approved in accordance with accepted industrial practice and standards
2. not involve the installation and connection of electrical equipment and components
3. not involve testing and commissioning of the complete installation and its constituent parts
4. have the authority to take decisions about the work they undertake such as the selection of suitable and safe access equipment, tools and equipment needed to complete the work they undertake
5. work on their own and have the responsibility for identifying, communicating and co-operating with, as necessary, technical and non-technical persons when appropriate

Note: This national occupational standard (Ref ID M33) belongs to SummitSkills – the Sector Skills Council for the Building Services Engineering Sector.

EUSDSG3.50

Carry out safe electrical working practices on electrical control (and supply) for mechanical building services systems

Performance criteria

- You must be able to:*
- P1 follow agreed procedures to ensure the co-ordination of site services and the activities of other trades as relevant
 - P2 identify and carry out isolation procedures to ensure the safe installation of system and components in accordance with electrical regulations and approved procedures as and when required
 - P3 undertake relevant risk assessments and record the outcome in keeping with organisational procedures
 - P4 identify and confirm fit for purpose instruments and equipment for determining the presence or not of an electrical supply
 - P5 confirm the presence or not of an electrical supply in accordance with electrical regulations and approved procedures
 - P6 interpret relevant technical data and specifications as appropriate

EUSDSG3.50

Carry out safe electrical working practices on electrical control (and supply) for mechanical building services systems

Knowledge and understanding

You need to know and understand:

- K1 IEE Wiring Regulations; Electricity at Work Regulations; Building Regulations as relevant
- K2 procedures of safe isolation in accordance with current standards and regulations
- K3 the types, application, strengths and limitations of circuits and electrical supply for identified electrical control systems
- K4 the types, application, strengths and limitations of equipment and instruments used for determining the presence or not of an electrical supply
- K5 methods and techniques of confirming the presence or not of an electrical supply in accordance with industry regulations, procedures and practices
- K6 types and application of electrical drawings, diagrams and specifications
- K7 the purpose and significance of relevant documentation in accordance with industry practices and procedures
- K8 the purpose and significance of following organisational and industry procedures when interpreting and providing relevant technical and functional information

You need to know and understand:

Health and Safety

- K9 the correct procedures for a safe isolation with regard to an assessment of safe working practice, the correct identification of circuits to be isolated, the correct test and proving instruments selected, the use of correct testing methods, and correct selection of devices for securing isolation
- K10 the implications for relevant parties of carrying out an isolation
- K11 the importance of using personal protective equipment and safe appropriate tools for specific jobs
- K12 the hazards associated with using electrical equipment and plant including their lifting, handling and fixing

You need to know and understand:

Principles and theory

- K13 IEE wiring regulations as specified in the latest British Standard for Electrical Installations relevant to types and uses of wiring systems, wiring enclosures and equipment
- K14 where to find out about the principles of electrical theory which allow for the safe installation of electrical wiring systems, wiring enclosures and equipment

EUSDSG3.50

Carry out safe electrical working practices on electrical control (and supply) for mechanical building services systems

Developed by Energy and Utility Skills

Version number 1

Date approved February 2010

Indicative review date February 2015

Validity Current

Status Imported

Originating organisation Summit Skills

Original URN DSG3.50

Relevant occupations Engineering; Science and Engineering Technicians

Suite Down Stream Gas

Key words safe, working practices, electrical, electricity, control, supply, mechanical, building services, systems