

Decommission air conditioning and heat pump systems

Overview

This standard is for people who decommission air conditioning and heat pump systems.

The person performing this work must be able to comply with the correct procedures and practices for decommissioning air conditioning & heat pump systems. This work must be in accordance with the current versions of the appropriate industry standards and regulations; the specification; industry recognised working practices; the working environment and the natural environment. They must know and understand the types, operation, operating principles and/or applications of:

- systems (unitary/package; split/multisplit; complex)
- heat pumps
- system components
- air handling units

Decommission air conditioning and heat pump systems

Performance criteria*You must be able to:*

1. verify that the job and system information and documentation are current and relevant and that the plant, instruments, access equipment and tools are fit for purpose
2. confirm before work starts that the work location and work area can be accessed safely
3. produce a risk assessment and method statement in accordance with organisational procedures for the work to be carried out, including the identification and use of personal protective equipment
4. interpret system information, diagrams and drawings to identify the location of the equipment, accessories and components that need decommissioning
5. decommission and remove the equipment components and accessories in accordance with
 - the working environment
 - manufacturer instructions
 - organisational procedures
6. complete safe-isolation to ensure the safe disconnection of,
7. electrical equipment and cables/wiring associated with the system
8. ensure that the system cannot be accidentally reactivated or become dangerous
9. confirm with the relevant people:
 - those necessary variations to the planned programme of work
 - the actions to be taken to ensure that any variations to the planned programme of work will minimise the potential for hazard and risk
10. implement organisational procedures for the safe transport and/or disposal of waste material, substances and liquids in accordance with suppliers' and manufacturers' instructions
11. complete relevant documentation in accordance with organisational procedures

Decommission air conditioning and heat pump systems

Knowledge and understanding

You need to know and understand:

1. the operation and operating principles of different systems and their associated equipment, components and accessories in relation to:
 - the system's design
 - the working environment
2. the appropriate industry standards and regulations relevant to decommissioning air conditioning and heat pump systems
3. how to verify that job and system information and documentation is current and relevant and that the plant, instruments, access equipment and tools are fit for purpose
4. how to produce a risk assessment and method statement for the work to be performed, including the identification and use of personal protective equipment, in accordance with:
 - the system's design
 - the conditions of the working environment
 - organisational procedures
 - activities of other personnel on site
5. how to interpret system information, diagrams and drawings to identify the location of the equipment, accessories and components that need decommissioning
6. the procedures for completing safe isolation of electrical equipment and cables/wiring associated with the equipment
7. the methods and techniques for decommissioning the system and its equipment, components and accessories without refrigerant loss in accordance with:
 - the system's design
 - the working environment
 - manufacturer instructions
 - organisational procedures
8. the methods and techniques to ensure the system and its equipment, components and accessories cannot be accidentally reactivated or become dangerous
9. the checks required to confirm that the equipment, components and accessories have been decommissioned in accordance with:
 - organisational procedures

Decommission air conditioning and heat pump systems

- the conditions of the working environment
 - manufacturer instructions
10. how to release pressure in the system prior to breaking a circuit
 11. the organisational procedures for:
 - confirming with relevant people those necessary variations to the planned programme of work that may have the potential to introduce a hazard and/or impact on the decommissioning work to be undertaken
 - confirming with relevant people the correct actions to be taken to ensure that any variations to the planned programme of work will not introduce a hazard and have minimum impact on the decommissioning work to be undertaken
 - obtaining customer/client acceptance of the decommissioned system and its associated equipment, accessories and components
 12. how to implement organisational procedures for the safe transport and/or
 - disposal of any waste material, substances and liquids in accordance
 - with suppliers' and manufacturers' instructions
 13. how to complete relevant documentation in accordance with organisational procedures

Decommission air conditioning and heat pump systems

Scope/range related to performance criteria **Working environments (internal and/or external)**

- domestic
- non-domestic
 - commercial
 - industrial
 - agricultural
 - horticultural
 - leisure and entertainment
 - residential medical and care facilities
 - public services establishments
 - pre-1919 traditional/historic buildings

Systems

- unitary or package
- split or multisplit
- complex

Equipment, components and accessories

- heat pumps
- condensers
- evaporators
- compressors
- expansion devices
- accumulators
- filters
- controls for pressure/temperature (including complex/smart)
- line and regulating valves
- sensors and gauges
- vacuum pumps
- condensate pumps
- grilles/diffusers/fans/filters
- heat exchangers
- air handling units
- liquid receivers

Organisational Procedures

- information management
- project management
- risk assessment management
- implementing and monitoring health & safety requirements and issues
- implementing and monitoring issues relating to the natural environment
- customer service

Decommission air conditioning and heat pump systems

- accident reporting
- emergencies
- communication with relevant people* *

Plant

- transformers for low voltage hand-tools
- lifting equipment
- access equipment
- hot work equipment

Relevant people

- customers/clients
- client representatives
- supervisors
- site/contract manager
- other contractors/trades

- members of the public

- work colleagues

Glossary

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