

## Overview

This national occupational standard defines the competence involved in Joining material by electrofusion processes, involving the use of non-automatic and automatic techniques. The Joining process is required to be carried out in all weather conditions and in accordance with industry standards and specifications.

This standard is for those responsible for operations during gas network construction activities. These activities will usually include the leadership and direction of the members of a team and decision making regarding the approach to take when undertaking the work.

This standard consists of three elements;

1. join materials using electrofusion Joining techniques
2. Shut down and carry out post-stop checks on jointing equipment
3. use and communicate data and information

## Performance criteria

*You must be able to:*     **Join materials using electrofusion techniques\*\***

1.        carry out site specific risk assessment, and review in accordance to company procedures
2.        apply control measures identified in risk assessments
3.        provide adequate weather protection during the entire jointing cycle
4.        select, check condition, use and store the appropriate personal protective equipment (PPE)
5.        work safely and ensure compliance with health, safety, environment and other regulations and guidelines
6.        follow the manufacturers' instructions and procedures accurately for preparing and making the joints
7.        check that jointing and related equipment and consumables are as specified and fit for purpose
8.        make the joints as specified using the correct electrofusion jointing technique
9.        check quality and confirm the joint complies with the specified standard for completed joints
10.      follow manufacturers instructions to shut down the equipment to a safe condition on completion of jointing activities
11.      follow approved and agreed procedures to manage excess and waste materials and temporary attachments
12.      carry out all work to approved procedures and practices and in compliance with statutory and regulatory requirements

### **Shut down and carry out post-stop checks on jointing equipment**

13. stop jointing equipment safely and carry out required post-stop checks in accordance with organisational and operational procedures

14. securely store jointing equipment

**Use and communicate data and information**

**15. follow all approved procedures and practices and statutory and regulatory requirements involved in the jointing activity**

16. check with designated personnel any circumstances where information appears incorrect

17. use organisational information systems to record and store data and information

18. report promptly to the designated person damage to supply apparatus or jointing equipment.

19. refer matters outside the responsibility of the job role to the designated people

follow approved emergency procedures immediately in the event of an emergency situation

## Knowledge and understanding

*You need to know and understand:*

### General

1. the main responsibilities of the employer and employee under the Health and Safety at Work Act and how to comply with them
2. the main responsibilities of the employer and employee under environmental legislation
3. how to carry out and review risk assessments
4. the company reporting lines, roles, responsibilities and levels of authority
5. the identification and application of safe procedures for handling hazardous and non-hazardous materials
6. organisational accident recording and reporting procedures
7. the range and use of personal protective equipment for the work activity and procedures for checking PPE is fit for purpose
8. statutory, organisational and emergency reporting procedures

### Joining Materials by Electrofusion

9. health, safety and environment legislation and environmental procedures relevant to the joining activities
10. the safety implications of the joining activity including proximity to other fittings and flow stopping equipment
11. how to interpret engineering specifications relevant to the joining activity
12. how to use joining equipment in line with manufacturers instructions
13. different types, sizes and densities of pipe materials and their

uses, jointing methods for each and potential hazards

14. the sequences to follow during the jointing process and the importance of allowing each phase to complete.
15. the need for pipe support, alignment and restraining whilst joining including the consequences of poor support and misalignment
16. cause and effect of defects and contamination on the pipe or fitting
17. the equipment maintenance and calibration requirements and consequences of poor maintenance
18. quality assurance procedures that must be applied during and following jointing
19. how to produce electrofusion performance reports

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<b>Developed by</b>	Energy & Utility Skills
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<b>Date Approved</b>	01 Dec 2017
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<b>Originating Organisation</b>	Energy & Utility Skills
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<b>Original URN</b>	EUS GNC010
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<b>Relevant Occupations</b>	Gas Team Leaders, Craftspersons and Technicians
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<b>Suite</b>	Gas Network Construction
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<b>Keywords</b>	gas, network, gas network, electrofusion, joining
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