

# EUSLDC10

## Establish the integrity of a discrete area on the distribution network



### Overview

This unit is designed for those who work on the water distribution network and are involved in proving metered areas and the associated isolating and re-commissioning of pipework which may be required during proving activities.

You will need to identify which section of the network is to be isolated and the valves and hydrants which will be used; you must make sure affected customers have been informed and that service levels will be maintained; you will also need to operate network fittings properly and make sure the section has been fully isolated. You must check that there is no contamination and record the details of the isolation activity.

You must check that the information and plans you have are in agreement with what you actually find in the distribution network. This will include making sure valves and meters are where they are expected to be and that boundary valves are accessible, working properly and that they are water tight. You will identify and report problems with valves and meters. You will need to establish the inflow and outflow meters for the area and record any changes that you have made to any of the equipment and to make sure that permanent boundary valves are marked correctly on site and network plans.

You will need to check which section of the network needs to be re-commissioned and identify the valves and hydrants to be used, as well as operating the network fittings properly and carrying out flushing operations on the re-commissioned section as required, making sure that samples have been taken. You must provide re-commissioning details to those who need them.

You must follow safe working and hygiene practices at all times.

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### Performance criteria

*You must be able to:*

#### **Isolate a section of the distribution network**

- P1 identify the section of the distribution network which needs to be isolated, according to work requirements
- P2 confirm that customers who will be affected are informed, and that service levels will be maintained, in accordance with organisational requirements
- P3 identify the network fittings from those on the ground and those on network plans which will be involved in the isolation activity and report any differences you find
- P4 confirm that there are no obvious sources of potential contamination on the network fittings within the isolated section
- P5 access and correctly operate the relevant network fittings in the required sequence
- P6 inform those who need to know that the section of the network has been isolated as required
- P7 record details of the isolation activity accurately and completely and inform those who need to know that the section has been isolated
- P8 follow safe working and hygiene practices according to relevant procedures, regulatory and statutory

*You must be able to:*

#### **Prove the integrity of the metered area**

- P9 obtain relevant information regarding the metered area being monitored
- P10 confirm the location of specified fittings against information provided
- P11 confirm the boundary valves are as specified and accessible and in working condition
- P12 identify network fittings and equipment requiring repair and maintenance and report the details to the relevant person according to organisational requirements
- P13 confirm that known leaks on network fittings have been repaired prior to proving
- P14 confirm the water tightness of boundary valves according to organisational procedures
- P15 where you find valves which are not in the expected state you identify the possible reasons and determine an appropriate course of action
- P16 confirm that system pressures are not adversely affected during valve operations
- P17 establish those meters which provide the total inflow and outflow to the metered area and confirm they are accessible and in working condition
- P18 accurately record changes made to fittings and equipment and provide this information to the relevant person

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P19 check that permanent boundary valves are accurately marked on site and network plans

P20 follow safe working and hygiene practices according to relevant procedures, regulatory and statutory requirements

*You must be able to:*

### **Re-commission a section of the distribution network**

P21 check that the section of the network is ready for re-commissioning, according to work requirements

P22 identify the network fittings to be used for re-commissioning

P23 identify the hygiene procedures used and any which need to be undertaken prior to re-commissioning and carry them out accordingly

P24 access and correctly operate the relevant network fittings in the required sequence

P25 carry out flushing operations and discharge water in accordance with organisational procedures

P26 confirm that mains water sampling is carried out as required, according to organisational procedures

P27 record re-commissioning details accurately and completely and you provide the time of re-commissioning to those who need to know

P28 follow safe working and hygiene practices according to relevant procedures, regulatory and statutory requirements

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### Knowledge and understanding

*You need to know and understand:*

#### **Isolate a section of the distribution network**

- K1 how to read network plans
- K2 the effect that isolating a section of the network may have on the wider distribution system, the immediate zone, water quality and customers
- K3 organisational requirements for informing customers
- K4 potential sources of contamination of network fittings
- K5 how to operate network fittings and the importance of doing it in the required sequence
- K6 how to check that isolation has been successful, the importance of doing this, and who to inform that it had been completed
- K7 recording requirements
- K8 safety and hygiene practices and related regulatory statutory requirements - including the Health and Safety at Work Act and the New Roads and Street Works Act

*You need to know and understand:*

#### **Prove the integrity of the metered area**

- K9 the information available regarding the metered area and where to obtain it from
- K10 how to interpret network plans
- K11 the importance of checking accessibility and working conditions of boundary valves
- K12 who to report repair and maintenance details to
- K13 the importance of checking repair of network fittings
- K14 procedures for water tightness of boundary valves
- K15 reasons why valves may not be in the expected status, and the implications of changing them
- K16 the consequences of making any changes or variations to water quality and supply, with regard to organisational limits
- K17 the importance of not affecting system pressures
- K18 how to interpret network flow information
- K19 recording requirements
- K20 the importance of checking site and network plans
- K21 safety and hygiene practices and related regulatory and statutory requirements - including the Health and Safety at Work Act and the New Roads and Street Works Act

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*You need to know and understand:*

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### **Re-commission a section of the distribution network**

- K22 work requirements for re-commissioning a section of the network
- K23 how to read network plans
- K24 when and how to carry out hygiene procedures
- K25 how to operate network fittings and the importance of doing it in the required sequence
- K26 flushing procedures
- K27 water disposal procedures and the potential damage which can be caused by incorrect disposal
- K28 the need for sampling
- K29 recording requirements and who needs to be informed about re-commissioning
- K30 safety and hygiene practices and related regulatory and statutory requirements - including the Health and Safety at Work Act and the New Roads and Street Works Act

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## Additional Information

### Glossary

#### Details

Date and time of isolation

#### Network Fittings

Isolation valves, air valves, hydrants

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**Relevant occupations** Engineering; Building and construction; Process Operatives

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**Suite** Leakage Detection & Control

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