



MCS Company Scheme Criteria for:

Water Regulations Criteria

DRAFT Consultation Document

This document shows the Competence Criteria required to be met by a company undertaking the type of work detailed above.



These competencies have been identified from the current Qualifications Credit Units (QCF) devolved from the National Occupational Standards (NOS) to cover the range of work in the scope identified on the front page.

Anybody holding:

1. An approved Water Regulations certificate of competence

Is likely to have met with all of the criteria presented within this document.

An Experienced Workers Route (EWR) will cover all the competencies outlined if taken in support of a EWR covering the same detail as titled on this document.

A full list of Qualifications that have been deemed to have met this criteria can be found at <http://www.microgenerationcertification.org/> along with access to EWR providers.

Please note anybody who has achieved the assessment without holding the correct mandatory Pre-requisites are likely to have to demonstrate further compliance against this company criteria.

Criteria Presentation

The criteria shown below in the following tables has been purposely presented in one of five categories:

1. Health and Safety – HS
2. Technical Skills – TS
3. Soft Skills – SS
4. Other – OT
5. Additional Information - AD

Where any box is blank these are intentionally blank.

By presenting the criteria within this format, it allows evidence to be collated for the Experienced Workers Route (EWR) options of evidencing compliance with the criteria.



Health and Safety Skills			
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Technical Skills			
No.	Objective	No.	Criteria
1	Understand the requirements of the Water Supply (Water Fittings) Regulations and Water Byelaws	1	Explain the requirements of the water regulations/byelaws (part 1)
		2	Within the domestic environment
		3	Within the commercial, industrial environment
		4	Explain the requirements of the water regulations/byelaws (part 2) in relation to
		5	The restriction on installation of water fittings
		6	The requirements for water fittings
		7	The notification requirements relating to any person who proposes to install a water fitting
		8	Approved contractors
		9	Explain the requirements of the water regulations/byelaws (part 3) in relation to
		10	Penalties for contravening the water regulations
		11	Relaxation of the water regulations
		12	Any dispute with a water undertaker
2	Understand terminology used to confirm requirements of the water regulations	1	Explain the meanings of the following key factors within the interpretations of the water regulations:
		2	Backflow
		3	Cistern
		4	Combined feed and expansion cistern
		5	Combined temperature and pressure relief,
		6	Contamination
		7	Distributing pipe
		8	Expansion cistern/vessel
		9	Expansion valve
		10	Flushing cistern
		11	Overflow pipe
		12	Pressure relief valve
		13	Primary circuit
		14	Secondary circuit
		15	Secondary system



		16	Servicing valve
		17	Stop valve
		18	Storage cistern
		19	Temperature relief valve
		20	Terminal fitting
		21	Vent pipe
		22	Identify the different types of water treatment apparatus available to dwellings
3	Know the suitability of materials and substances in contact with water	1	Describe the situations where the following materials or substances either alone or in combination are likely to cause contamination of water:
		2	Different classes of steel pipes
		3	Copper tubes and their connections above and below ground
		4	Unplasticised pvc
		5	Polyethylene pipes
		6	Stainless steel pipes
		7	Identify suitable fittings for use above and below ground
		8	Identify suitable jointing materials and compounds
4	Understand the requirements for water fittings	1	State the fitness for purpose of water fittings in relation to:
		2	British standards or equivalent
		3	Immunity and protection from galvanic action
		4	In relation to installed water fittings state the requirements for the following:
		5	Water tightness
		6	Prevention of ingress from contaminants
		7	Prevention from damage by freezing and other causes
		8	Prevention from deterioration by permeation
		9	The supporting pipework
		10	The fixings for water fittings
		11	Describe the requirement for pressure testing:
		12	Metallic pipework systems
		13	Plastic pipework systems
		14	Explain how surges within a pipework system can affect system performance in relation to:
		15	Water hammer
		16	Relief valve discharge
		17	Pneumatic accumulators
		18	State the connection requirements for the following in relation to the installation of a pump on a supply pipe:
		19	Permissible pump output capacity
		20	Permitted siting of a pump



		21	State the connection requirements for the following in relation to the installation of a pumped shower:
		22	Permissible pump output capacity
		23	Recommended siting of a pump
		24	State the installation requirements for pipes and operational fittings:
		25	Located in the cavity of a cavity wall
		26	Embedded in any wall or solid floor
		27	Located below a suspended floor
		28	Below a solid floor at ground level, location and accessibility to operational fittings
		29	State the following installation requirements for pipes entering a building:
		30	Depth of pipework
		31	Insulation requirements
		32	Protection of pipework
		33	State the installation requirements for underground pipework in relation to:
		34	Pipes laid underground
		35	Pipes laid over an underground obstruction
		36	Pipes under an underground obstruction
		37	Pipes supplying water to a building below street level
		38	Pipes beneath a stream
		39	Explain the terms 'concealed fitting' and 'dezincification resistant material'
5	Know the design and installation requirements for a water supply system	1	State factors to be taken into consideration in the design of a water supply system in relation to:
		2	Total daily consumption
		3	Maximum and average flows required
		4	Availability of mains supply
		5	Mains pressure variance
		6	Water storage capacity where needed
		7	Transient or surge pressures
		8	Environmental issues surrounding area and supply
		9	Describe types of distribution system available for the following within a dwelling:
		10	Direct fed system
		11	Indirect fed system
		12	Combination of direct and indirect fed systems
		13	Explain the methods of preventing the contamination of water fittings and the water contained within them when passing through contaminated environments.
		14	State the distribution temperature of cold water



		15	State the installation requirements relating to stop valves for the following:
		16	Individual properties
		17	Locations within premises supplied with water
		18	Blocks of flats supplied from a common supply pipe
		19	Blocks of flats with separate supply pipes to each flat
		20	State the installation requirements for the provision, operation and location of servicing valves in relation to the:
		21	Inlet to float operated valve (FOV)
		22	Outlet of storage cisterns
		23	Inlet to appliances
		24	Accessibility of servicing valves
		25	Methods of operation
		26	State the installation requirements for the provision of draining taps in relation to:
		27	Location
		28	Accessibility
		29	Types of draining taps
		30	State the requirements with respect to dead legs and redundant fittings
		31	State the requirements for pressure testing the following different systems:
		32	Systems that do not include any plastic
		33	Systems that include plastic pipes
		34	Explain the reason for the flushing of a system installation
		35	State when system disinfection is required
6	Know the requirements for the prevention of cross connection to unwholesome water	1	State the meaning of unwholesome water in relation to:
		2	Rainwater
		3	Recycled water
		4	Any fluid not supplied by a water undertaker
		5	State the requirements for identifying an unwholesome water system so that it is readily distinguishable from a wholesome system in relation to:
		6	Colour coding for pipes and fittings
		7	Labelling for pipes and terminal fittings
		8	Identify the correct arrangement for connecting a wholesome water supply to a re-use system
7	Know the backflow prevention fluid categories	1	Define the five fluid categories
8	Know the requirements for backflow prevention	1	State the requirements for the arrangements or devices to prevent the cross connection to unwholesome water
		2	Identify devices or arrangements used for backflow, back pressure and back siphonage prevention and their suitability



9	Understand the guidance clauses relating to backflow prevention	1	Describe the requirements whereby water can flow back into a supply or distributing pipe
		2	Explain the terms 'upstream' and 'downstream'
		3	Identify the method of protection against the backflow of water into a supply or distributing pipe without the need for a mechanical backflow prevention device
		4	Describe installation requirements for a mechanical backflow protection device relating to:
		5	Accessibility of the mechanical backflow protection device
		6	Location within the premises
		7	Requirement to not be buried in the ground
		8	Vented and verifiable
		9	Devices with relief outlets not being installed in chambers below ground or where liable to flooding
		10	The installation of line strainers
		11	The lowest point of discharge from the ground
		12	Termination with a type aa air gap
		13	State the requirements for appliances supplied through or incorporating a pump
		14	Explain the requirements for tap outlets in relation to:
		15	Single outlet taps
		16	Combination tap assembly outlets
		17	Fixed shower heads over basins, baths and bidets
		18	Explain the requirements for a sink in a non domestic environment
		19	State the requirements for the installation of hose pipes for:
		20	A house garden
		21	Commercial installations
		22	Explain when whole site and zone protection are required
		23	State the requirements for fire protection systems in relation to:
		24	Direct fed sprinkler systems with no additives
		25	Direct fed sprinkler systems with additives
		26	Elevated storage cisterns with or without additives by gravity
		27	Elevated storage cisterns with pumped outlet with or without additives
		28	Dual feed cisterns with water from the water undertaker and from another source
		29	State the requirements when applied to the following commercial and industrial applications:
		30	Pumped supply to laboratory fittings
		31	Separation of wholesome water from supplementary sources



		32	Separation of wholesome water from water that has been used
		33	Water supply taken directly from a supply pipe to a ship
		34	Water supply taken by gravity from storage on a quayside
		35	Water supply pumped from storage on a quayside
		36	Water taken from a hose union tap on a quayside
10	Know the installation requirements for cold water services	1	Describe the installation requirements and methods of connection for water fittings in relation to:
		2	Float operated valves
		3	Inlets to cisterns
		4	Outlets from cisterns
		5	Warning and overflow pipes
		6	Cold water storage cisterns
11	Know the installation requirements for hot water services	1	Describe the installation requirements and methods of connection for water fittings in relation to:
		2	Directly heated unvented hot water systems
		3	Indirectly heated unvented hot water systems
		4	Independent water heaters
		5	Methods of accommodating expanded water in a hot water system
		6	Maximum temperature within a hot water system
		7	Hot water distribution temperatures
		8	Temperature of hot water at terminal fittings and surfaces of hot water pipes.
		9	State the requirements for discharge pipes from safety devices
		10	State the requirements for discharge pipes from expansion valves
		11	State the requirements for vent pipes from a primary circuit
		12	State the requirements for vent pipes from a secondary hot water storage system
		13	State the requirements for vented systems requiring dedicated storage cisterns or mechanical safety devices
		14	State the methods of filling closed circuits
13	Know the types of bath, sink, showers and taps and their location and installation requirements	1	State the requirements for drinking water points in premises
		2	State the requirements for drinking water supplies in relation to:
		3	Water supplied from a supply pipe
		4	Water supplied from a pumped supply pipe
		5	Water supplied from a storage cistern
		6	Water that has been softened and used for drinking purposes
		7	State the requirements for waste outlets from appliances



14	Know the consumption limitations for washing machines, dishwashers and other appliances	1	State the upper limits of water consumption for domestic:
		2	Horizontal axis washing machines
		3	Washer – driers
		4	Dish washers
15	Know the requirements for water supplied for outside use	1	State the installation requirements for animal drinking troughs or bowls in relation to:
		2	Methods of controlling the inflow to a trough or bowl
		3	The siting of servicing valves
		4	Backflow protection
		5	State the installation requirements for ponds, fountains and pools in relation to:
		6	Impervious liners and water tightness
		7	Temporary connections to ponds, pools and fountains

Soft Skills

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Other

No.	Objective	No.	Criteria
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Additional Guidance

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