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How to tackle the work

The way in which you learn is largely up to you, but the following notes will give some guidance to those of you who feel they need it.

You should first look at the video which will take about half an hour and provide an overview of the Regulations.

Don't try to do too much at once. It is quite a deep subject, and it's probably best that you take it in easy stages, one step at a time and one module at a time.

BPEC Training and Assessment Centres will send you the Training Package at least two weeks before the Training and Assessment Course if you have chosen this route.

1. *Read the requirements of the Regulations and try to understand what they say. These are given at the start of each learning module, or in the case of Module 2 at intervals as you go through. In places the meanings will be quite plain, whilst other parts will take more consideration and thought.*
2. *Read the explanations given within the modules which should be easier to understand than the actual Regulations. This is because there are examples given of how the Regulations are applied.*
3. *Go through it more than once if you need to. The more times you look at it, the better it will stick in your memory.*
4. *Use the self-assessment questions to confirm whether you have taken it all in. These are spaced out in the modules and also serve to break the reading and give you something to stimulate your thinking. Write your answers in pencil not ink so any errors can be easily put right.*
5. *Check your answers against the model answers at the back of each learning module.*

Repeat this procedure throughout the package, and good luck in your endeavours.

Water Industry Act 1991:

Water Supply (Water Fittings) Regulations 1999

An Open Learning Course

Module 1

Introduction, background and legislation

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Introduction and background to the Regulations

The control of water supply installations in England and Wales has been radically revised by the introduction of the **Water Supply (Water Fitting) Regulations 1999**.

Following a period of deliberation and consultation, the **Secretary of State for the Department of the Environment, Transport and the Regions (DETR)** used his powers under **Sections 73, 74, 75, 84 and 213(2) of the Water Industry Act 1991 (a)** to make **Water Regulations** to control the installation and use of water fittings. This resulted in the making of the **Water Supply (Water Fitting) Regulations 1999 which came into force on 1 July 1999**.

It should be noted that these **Regulations apply only in England and Wales**. Similar provisions have been implemented by the Scottish Office and are being implemented by the Northern Ireland Office in their areas of jurisdiction.

We have in this country, a long history of Water Byelaws, administered and enforced by local water suppliers. As long ago as 1823 the Manchester and Salford Act was brought about to '*prevent the wilful and negligent use of water*', a practice in water wastage control which spread to other private and municipal water companies throughout the country.

The Water Act of 1945 formalised this arrangement by placing an obligation on water undertakers to enforce water byelaws '*for preventing waste, undue consumption, misuse or contamination of water*'. From 1945, Water Byelaws were required to be based on the Government's 'model' and needed the approval of the Government Minister with responsibility for water supply before they could be implemented. Generally, Byelaws were made to expire after a life of 10 years, after which time they were renewed and updated as became necessary.

This constant renewal of Water Byelaws continued until the latest Byelaws, based on the 1986 'model', were replaced by new Water Regulations on **1 July 1999**.

So! How do regulations differ from Byelaws?

Quite simply, **Byelaws were made locally** and applied only in the area in which they were made. For instance, Byelaws made by Thames Water applied only within the Thames Water area of supply. Thames Water were held responsible for enforcement of their own Water Byelaws.

Water Regulations on the other hand, **are National Regulations**, made by the Department of the Environment, Food and Rural Affairs (DEFRA) **and they apply to every installation in England and Wales that is supplied from a public main by a Water Undertaker**.

The responsibility for enforcement of the Regulations is placed on the Water Undertakers.

The new Regulations have similar aims to previous Byelaws, but a new way of implementing them. They are made '*as a means of preventing waste, undue consumption, misuse, contamination, and the erroneous measurement of water*'.

Whilst the aims are similar, as you go through this package you will find that there are quite a number changes in the way water fittings have to be installed and used.

What legislation is in place to control water installations in this country?

The main legislation governing the making of **Water Regulations is the Water Industry Act 1991** and **Sections 73, 74, 75, 84, and 213(2)** in particular are relevant.

- **Section 73** Offences of contaminating, wasting and misusing water etc, (legal action)
- **Section 74** Regulations for preventing contamination, waste etc and with respect to water fittings
- **Section 75** Power to prevent damage and to take steps to prevent contamination, waste etc
- **Section 84** Local authority rights of entry etc
- **Section 213(2)** Powers to make regulations.

Extracts from Section 74 are quoted below and main points highlighted:

74-(1) *The Secretary of State may by regulations make such provision as he considers appropriate for any of the following purposes, that is to say:*

(a) *for securing:*

- (ii) **that water in a water main or other pipe of a water undertaker is not contaminated, and**
- (iii) **that its quality and suitability for particular purpose is not prejudiced, by the return of any substance from any premises to that main or pipe;**

(b) *for securing that water which in any pipe connected with any such main or other pipe or which has been supplied to any premises by a water undertaker is not contaminated, and that its quality and suitability for particular purposes is not prejudiced, before it is used;*

(c) *for preventing the waste, undue consumption, and misuse of any water at any time after it has left the pipes of a water undertaker for the purpose of being supplied by that undertaker to any premises; and*

(d) *for securing that water fittings installed and used by persons to whom water is or is to be supplied by a water undertaker are safe and do not cause or contribute to the erroneous measurement of any water or the reverberation of any pipes.*

So! By briefly looking at the wording of Section 74, we can see that the Water Regulations made under the Act have been made for the following purposes:

- to make sure that **water is not contaminated, and its quality and suitability for purpose is not prejudiced,**
- to **prevent waste, undue consumption, and misuse of water** supplied by the undertaker, and
- to make sure that **water fittings installed and used are safe and do not cause or lead to erroneous measurement, or reverberation** (vibration/noise) in pipes.

In other words, the Regulations have been written to protect the water supply and to protect users against their own actions.

European Law

Under the terms of a Directive of the European Commission (EEC), Britain is obliged to consult with the EEC and through them, the other European countries, and must obtain EEC approval before any technical regulations are made. The purpose of this consultation is firstly to ensure that the introduction of any regulation does not cause any barriers to trade, and secondly to allow any comment by European countries to be taken into account in the making of the regulations.

This process has inevitably led to changes in the way water is being used and how some of our water installations are arranged. Perhaps the most obvious examples being (a) the permitted use of pressure flushing valves for WCs and urinals, and the use of valve type WC cisterns, which is quite a departure from previous practices. (See Module 11)

The Water Supply (Water Fittings) Regulations 1999

These are made in a similar format to Building Regulations and over the years prior to the Water Regulations being made, there was considerable discussion as to whether they should actually be included within Building Regulations and whether they should be enforced by Building Control Officers. After much consideration it was decided that the Water Regulations should remain separate from Building Regulations and continue to be administered and enforced by the water undertakers (suppliers).

What is in the Regulations that I should know about?

Well! You should know, or at least be aware of, pretty well everything that is in the Regulations. However, before getting into detail, let's start with a brief overview which is as follows.

The Water Supply (Water Fittings) Regulations 1999 consists of 14 Regulations which are divided into three parts and supported by three schedules.

Part I 'Preliminary' gives the date at which the Regulations came into force, it gives some interpretations to support and help us to understand the Regulations. Part I also makes statements as to how the Regulations should be applied. **Regulation 1** is supported by **Schedule 1** which describes the **five fluid categories**. (See Module 8)

Part II 'Requirements' sets out what is expected of persons installing water fittings, how water fittings should be installed and used to prevent waste or contamination and places conditions on the materials and fittings that may be used. Part II also requires **contractors to notify water suppliers of certain installations** and encourages the introduction of Approved Contractors Schemes.

Also in Part II, **Regulation 4(3)** is supported by **Schedule 2 'Requirements for Water Fittings'** which deals with the more practical aspects of the Regulations.

Part III Enforcement, as the title suggests, **deals with** aspects of **enforcement, penalties** for contravention of the Regulations, and **dispute procedures**.

Schedule 1 to the Regulations sets out fluid risk categories related to the backflow requirements of Schedule 2.

Schedule 2 to Regulation 4(3) 'Requirements for Water Fittings' consists of 31 separate requirements and really contains the 'meat' of the document, looking at the use of water fittings in all its many aspects. In fact with the exception of the first two modules, the whole of this training package deals with the requirements set out in the Schedule. In Modules 3 to 11 we will be looking at requirements for:

- **Materials** (in Module 3)
- **Requirements for water fittings** (in Module 4)
- **Design and installation** (in Module 5)
- **Commissioning** (in Module 6)
- **Prevention of cross connections** (in Module 7)

- **Backflow** (in Module 8)
- **Cold water services** (in Module 9)
- **Hot water services** (in Module 10)
- **WCs, flushing devices and urinals** (in Module 11) and
- **Sanitary appliances and water for outside use** (in Module 12)

Schedule 3 'Byelaws Revoked' supports Regulation 14 and simply lists the byelaws of the various water undertakings in England and Wales which have been taken off the Statute book and replaced with the Water Industry (Water Fittings) Regulations 1999.

Approved (Guidance) Document

Water Regulations, compared to previous byelaws are less prescriptive, and contain little in the way of technical detail other than that given in Schedule 2 'Requirements to Regulation 4(3)' mentioned above.

The Department of the Environment, Food and Rural Affairs (DEFRA) has produced a **Guidance Document** to accompany the Regulations that can be used in a similar way to that of the approved documents that go with Building Regulations.

In addition to the DETR Guidance, the Water Regulations Advisory Scheme (WRAS) have produced a '**Water Regulations Guide**'. Written in straightforward technical terms with illustrations, the WRAS Guide **provides practical guidance as to how compliance with the Regulations** and the requirements under Regulations 4(3) can be achieved.

The WRAS Guide includes:

- (a) the Regulations
- (b) the DETR Formal guidance
- (c) further commentary and guidance to the Regulations.

The use of the approved document is not mandatory and failure to comply with its recommendations cannot in itself lead to any liability under Regulations. However, where an installer can show that his installation is in compliance with the recommendations of the approved document, his installation can be deemed to satisfy the requirements of the Regulations.

It should be remembered also that in law **the burden of proof is with the installer**.

This means it is up to you, the installer, to show proof that your installation complies with the requirements of the Regulations.

In turn, this means you are expected to be competent in what you do. You need to have the qualifications, knowledge, and practical experience to carry out your work in a proper and '**workmanlike manner**'. (Regulation 4(5))

It is the aim of this package to help you to gain a good knowledge of Water Regulations and thus improve your competence in the installation work that you do.

So! Now some work for you. Please turn to the next page for your first set of self-assessment questions.

Self-assessment questions

1. The Secretary of State for the Department of the Environment, Transport and the Regions (DETR) used his powers under Sections 73, 74, 75, and 84 of the Water Industry Act 1991 to make the Water Industry (Water Fittings) Regulations 1999.

Give the date on which the Regulations came into force

2. Name the TWO United Kingdom countries that are directly affected by these Regulations.

_____ and _____

3. In the past we have been used to water byelaws. State briefly how the Regulations differ in status from byelaws.

Byelaws _____

Water Regulations _____

4. State who is responsible for enforcing the new Water Regulations.

5. In addition to the Water Regulations document the DEFRA have also produced an Approved (or guidance) Document. We are obliged by law to comply with the Water Regulations. Explain briefly the status of the Approved Document.

Check your answers on page 8.

Summary of main points

Background and legislation

The Secretary of State for the Department of the Environment, Food and Rural Affairs (DEFRA) used his powers under **Sections 73, 74, 75, 84 and 213(2) of the Water Industry Act 1991 to make the Water Supply (Water Fittings) Regulations 1999.**

The Regulations came into force on **1 July 1999 and apply only in England and Wales.**

It is expected that the new Regulations for Northern Ireland will be approved in the near future.

Similar provisions, based on the Regulations for England and Wales, are made for Scotland. In Scotland Revised Water Byelaws are retained, and Northern Ireland continue with their own Regulations

Our previous history of water byelaws in England and Wales has come to an end. **Byelaws** which were made locally and applied only in the area in which they were made **are now revoked and replaced by the Water Supply (Water Fittings) Regulations 1999.**

The Water Regulations are National Regulations, and apply to every installation in England and Wales that is supplied from a public main by a Water Undertaker.

The Regulations are made **for securing that water in any water main or pipe** supplied by the water undertaker **is not contaminated and that its quality and suitability for purpose is not prejudiced.** They are made for **preventing the waste, undue consumption and misuse of water supplied by the undertaker, and for securing that water supplied by the undertaker is safe and does not contribute to the erroneous measurement of water or reverberation in pipes.**

The responsibility for enforcement of the Regulations is placed on the Water Undertakers.

The (WRAS) '**Water Regulations Guide**' provides practical guidance as to how compliance with the **Regulations**, and the requirements under Regulations 4(3) **can be achieved.** The WRAS Guide includes:

- (a) the Regulations
- (b) the DEFRA Formal guidance
- (c) further commentary and guidance to the Regulations.

Water Industry Act 1991:

Water Supply (Water Fittings) Regulations 1999

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Module 12

Sanitary appliances and water for outside use

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Introduction

This module looks at Paragraphs 26 to 31 of Schedule 2 to the Regulations which deal with the prevention of contamination and waste of water in a variety of topics relating to the supply of water to sanitary appliances and water for outside use.

Topics included are:

- the supply of drinking water for domestic purposes
- waste outlet and plugs for baths, sinks showers and taps, and
- quantities of water used in washing machines/driers and dishwashers
- water to animal drinking vessels
- ponds, fountains and pools

The requirements are generally quite clear and straightforward. There is little that is new in Paragraphs 26 to 31 as much of what is contained in them has been required by water byelaws for many years.

One new provision however, is seen in Paragraph 29 which introduces further economy measures by requiring washing machines and dishwashers to use less water than was previously permitted.