

Water Regulations

How they affect your business



Safe, high quality
and reliable drinking
water at all times.

What are the Regulations?

The Water Supply (Water Fittings) Regulations 1999 (the Regulations) apply to premises which are supplied with wholesome water by Welsh Water.

They are the national requirements for the design, installation and maintenance of plumbing systems, water fittings and appliances across Wales and England.

The main purpose of the Regulations is to protect public health by preventing the waste, misuse, undue consumption, erroneous measurement and, most importantly, contamination of the water that we supply to our customers.

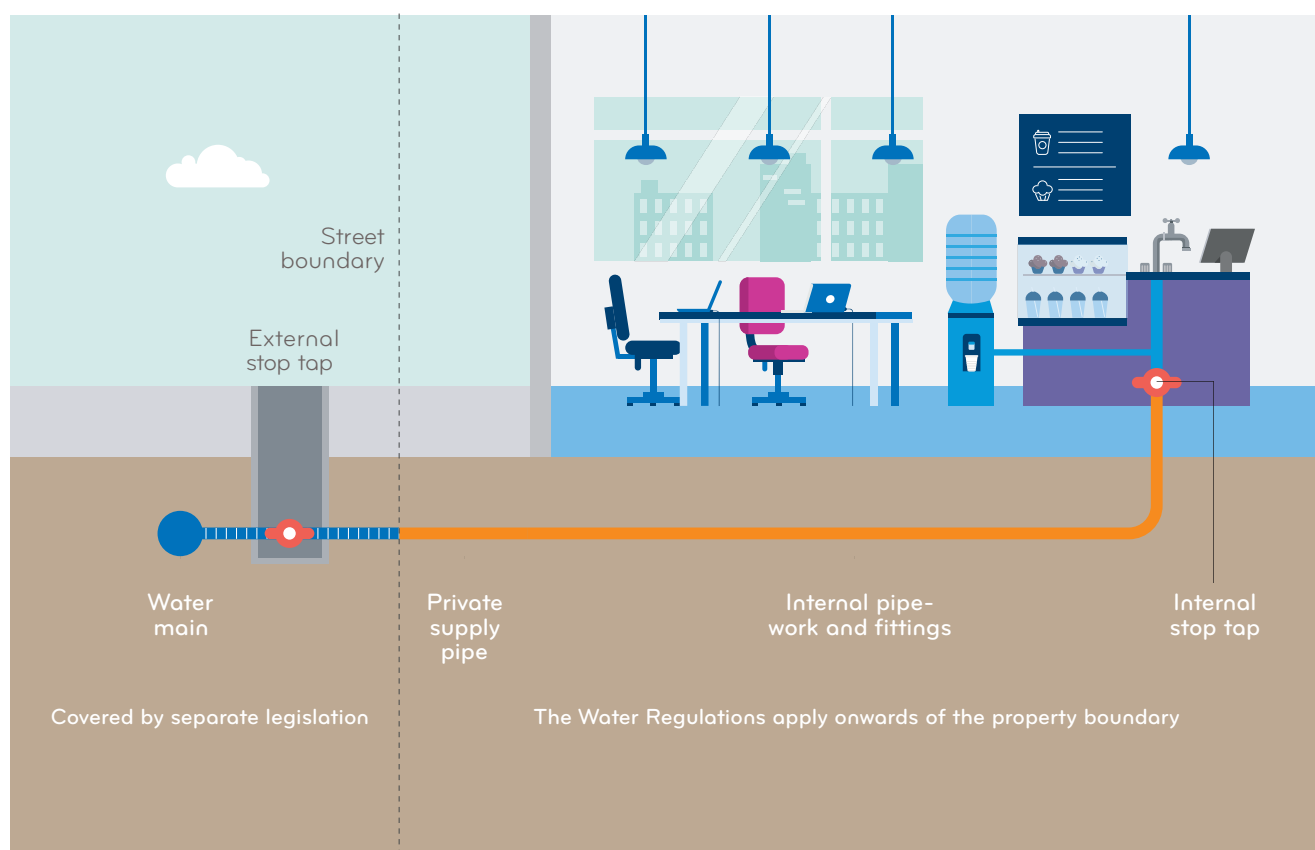
Where do the Regulations apply?

The Regulations typically apply from the point where our supply enters the supply pipe to our customers' premises, and up until it is used in taps, valves and appliances.

Who must comply with the Regulations?

Our customers, as the owners or occupants of premises which we supply, must comply with this legislation.

The Regulations also talk about the persons installing the water fittings; meaning that anyone who installs or maintains water fittings must ensure their work satisfies the requirements.



Welsh Water's role

As your water supplier, Welsh Water is duty bound to enforce the requirements of the Regulations in your premises.

Our Regulators audit us on how we operate in this role to ensure that the approach to our customers is consistent, fair and in-line with the requirements of the Regulations.

We undertake planned and reactive inspections that are prioritised towards premises where the potential risk of contamination to the consumer and our water supply network are felt to be highest. Should your premises be due for an inspection, we'll contact you to arrange this before attending.

At Welsh Water we are proud to put our customers first. Where we do find something that doesn't meet the requirements of the Regulations, we'll do everything we can to work with our customers to help put things right.

We also support our customers by engaging with them on plumbing work that they may be planning. Letting us know before works start mean that we can offer guidance and be sure that the work complies.

Welsh Water publishes an enforcement policy on our website where you can learn more about how we work with our customers to encourage compliance across our supply area.

Enforcement Policy: www.dwrcymru.com/WaterRegulationAdvice

What can you do to comply?

We don't expect all our customers to know the requirements of the Regulations, but you can do your part.

Compliant products

When looking to purchase plumbing fittings and appliances, it's always best to make sure the product you are choosing is of an appropriate quality and standard. You should also consider whether what you want to install, is suitable for the circumstances in which it will be used.

The Regulations detail the requirements for water fittings and provides a list of ways that a fitting or product can prove that it complies. This is known as Regulation 4 compliance.

Approved contractors

WaterSafe is the national register for approved contractors, such as plumbers and water supply pipe installers. Members will have recognised qualifications and insurance, meaning you can have confidence that the work will be done correctly with the right safeguards in place.

Plumbers who are members of these schemes, are audited regularly by Welsh Water to ensure their work complies.

WaterSafe members are exempt from having to notify us in advance on some types of work that they carry out. We would otherwise require notification of work and give prior consent. An approved contractor will also provide you with a certificate which states that their work complies with the Regulations.

You can find your local approved contractor by heading to our website at dwrcymru.com and using the handy WaterSafe search toolbar on our homepage.

Notification

It is a requirement for many types of plumbing work be notified to us before the work can start. This is to ensure that the drinking water supply is always safe. We review notifications sent to us and we may specify conditions on any installation where appropriate.

The table below includes a list of work that requires prior notification, as set out in the Regulations.

Table of notifiable work

1. The erection of a building or other structure, not being a pond or swimming pool.
- 2. The extension or alteration of a water system on any other premises other than a house.**
3. A material change of use on any premises.
4. The installation of:
 - a) A bath having a capacity, as measured to the centre line of overflow, of more than 230 litres;
 - b) A bidet with an ascending spray or flexible hose;**
 - c) A single shower unit (which may consist of one or more shower heads within a single unit), not being a drench shower installed for reasons of safety or health, connected directly or indirectly to a supply pipe which is of a type specified by the regulator;
 - d) A pump or booster drawing more than 12 litres per minute, connected directly or indirectly to a supply pipe;
 - e) A unit which incorporates reverse osmosis;
 - f) A water treatment unit which produces a waste-water discharge, or which requires the use of water for regeneration or cleaning;
 - g) A reduced pressure zone valve assembly or other mechanical device for protection against a fluid which is in fluid category 4 or 5;
 - h) A garden watering system unless designed to be operated by hand; or
 - i) Any water system laid outside a building and either less than 750mm or more than 1350mm below ground level.
5. The construction of a pond or swimming pool with a capacity greater than 10,000 litres which is designed to be replenished by automatic means and is to be filled with water supplied by a water undertaker.

Remember, some types of work are exempt from the requirement to notify if you use an approved contractor, like a plumber listed by WaterSafe.



The failure to notify any of the above work is a criminal offence under the Regulations.

You can learn more about notification and how to notify us by heading to dwrcymru.com/notification.

Fluid Categories – know the risk

Water fittings and known contaminants are given a Fluid Category risk rating. The Fluid Category indicates the level of risk to the drinking water supply and the wider network in a contamination event.

As you'd expect, the higher the category, the higher the level of risk. Fluid Category 1 is the category given to wholesome water which we supply, whilst Fluid Category 5 risks include things like animal waste or highly toxic substances which might be used in process water.

Each of these categories are assigned specific backflow protection arrangements or devices which are required to protect the water supply from potential contamination.

We have been given guidance by our Regulator to help us consistently determine the level of risk posed by types of processes or installations. A selection of these have been included below:



Fluid Category 1

Wholesome water, as supplied directly from a water undertaker's main. This must comply with the requirements of regulations made under section 67 of the Water Industry Act 1991.



Fluid Category 2

- Mixing of hot and cold water supplies
- Fire sprinkler systems (without anti-freeze)
- Drink vending machines in which no ingredients or carbon dioxide are injected into the supply or distributing inlet pipe
- Ice making machines



Fluid Category 3

- Drinks vending machines in which ingredients or carbon dioxide are injected
- Commercial softening plant (common salt regeneration only)



Fluid Category 4

- Fire sprinkler systems using anti-freeze solutions
- Refrigerating equipment
- Brewery and distillation plant
- Industrial disinfection equipment
- Commercial clothes washing plants



Fluid Category 5

- Grey water recycling systems
- Sinks, urinals, WC pans and bidets
- Laboratories
- Industrial and chemical plant etc..
- Commercial clothes washing plant in health care premises
- Dishwashing machines in health care premises
- Water storage for firefighting purposes

Things to note in your plumbing system

To help you think about the risks that are present in most plumbing systems, we've highlighted some of the key areas which we find don't comply in our customers premises.



1. Zonal Backflow Protection

Backflow protection is required not only to protect our mains water supply coming into the premises, but also to protect the water within a plumbing system so that it remains suitable for drinking and sanitary purposes by the consumer.

One way of ensuring this is by installing zonal backflow protection on the supply to any process areas at a premises or on the feeds to areas where water is used for purposes that don't require it to be wholesome. An example of this would be to install a dedicated storage cistern with an appropriate air gap to feed any washdown plant.

2. Hose Union Taps

The potential risk posed by a hose union tap varies based on the fluid category of any fluids it may come into contact with. For example, a hose union tap used to wash down bins or refuse areas would be considered a fluid category 5 risk.

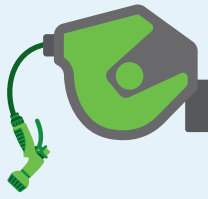
The image below details what the Fluid Category of risk means for the types of backflow protection required.

Risk

Fluid Category 3 Double check valve	Fluid Category 4 RPZ Valve	Fluid Category 5 Supply from storage with Type AB air gap
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Tip Use retaining clips or a self-retracting hose reel to secure a hose in place and to prevent it from being submerged or contaminated by anything nearby.



Hoses should never be submerged in buckets, sinks, drains or laying on the ground.

3. Appliances

Much like hose union taps, the level of risk posed by appliances, such as dishwashers and washing machines can vary greatly depending on the end use.

Some commercial appliances will have the necessary backflow protection built in as part of their design. Remember, the installation of a new appliance would require notification, so we would be able to advise you on what level of protection is required. Even if you are replacing an appliance it's important that you check with your supplier that it has the necessary backflow protection for its use in your premises.

If in doubt, contact us. We'll consider any evidence of compliance provided about a specific product and advise on whether it's suitable.

4. Closed Circuit Systems

Closed circuit systems, such as central heating systems in non-domestic premises are deemed to be a Fluid Category 4 risk. These systems can be supplied using pressurisation units, which are typically an effective solution that offer the right level of backflow protection.

We also tend to see Reduced Pressure Zone (RPZ) valves used as fittings to provide an in-line top-up solution. RPZ valves are a mechanical device which can provide adequate backflow protection up to a Fluid Category 4 risk. These devices must be installed, commissioned and tested no less than once annually in accordance with Water Undertakers RPZ AIM.

The costs and responsibility for the ongoing maintenance of these fittings should be considered when deciding to install an RPZ valve.

For more info on RPZ valves, please visit:

<https://www.dwrcymru.com/en/help-advice/water-regulations/reduced-pressure-zone-rpz-valves>

5. Dead Legs

Dead legs are one of the most common faults we find in existing plumbing systems. This happens when lengths of pipework are no longer used or capped off rather than removed.

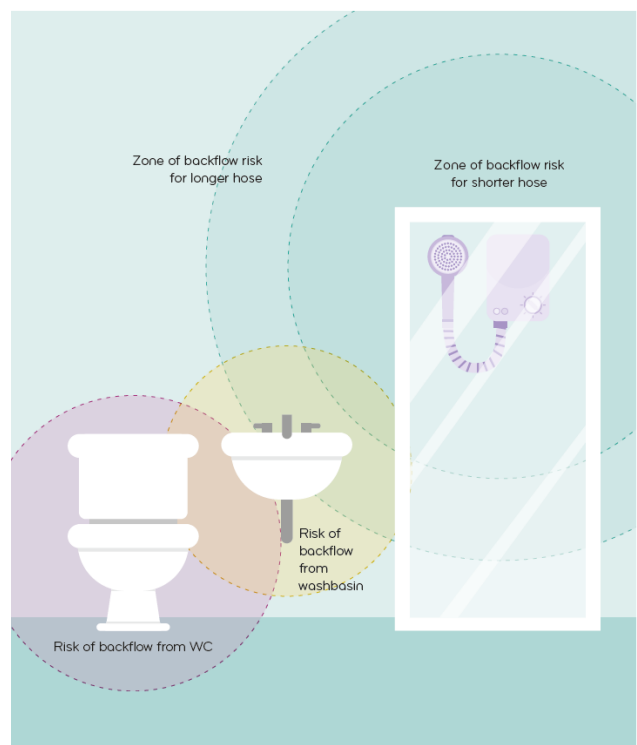
The water that sits in a dead leg can stagnate, enabling the growth of harmful micro-organisms which can then be drawn back into your plumbing system when the pressure levels drop.

Avoiding dead legs in pipework is easy. If the pipework and fittings are not being used, remove them and trace back to the branch where it comes from. If you have sections of pipework that are needed but are not used regularly, make it so that these can be isolated in drained through periods where they won't be used.

6. Showers

If you have showers in your business, it's important that the outlets cannot be left submerged in water or on any shower trays.

Where practicable, we recommend the use of fixed head showers that don't have a flexible hose. If a hose is needed, this should be shortened or permanently restrained so that it isn't possible to leave it in areas where there is a risk of backsiphonage.



Where can I get more information?

Water Regs UK is a company that provides published guidance and advice on the requirements of the Regulations.

Their website contains a number of useful documents that are freely available to try and answer any questions that you may have.

You can find these by heading to www.waterregsuk.co.uk

Contact us

If you have questions relating to a specific installation or something to do with our enforcement of the Regulations, it's probably best to contact us directly.

We include some information about the Regulations on our website, which you can find by scanning the QR code below or by heading to:
www.dwrcymru.com/waterregulations

You can also get in touch with our Water Regulations team by emailing waterregulations@dwrcymru.com or by calling us on 01792 841 572.

