

northern ireland
water



Delivering what matters

Trade Effluent Explained

A guide to discharging trade effluent in Northern Ireland



What is Trade Effluent?

Trade effluent includes any liquid produced in the operation of any trade or industrial process that is discharged to the public foul sewer or NI Water Waste water Treatment Works. It includes water used in production, washing, or cooling facilities and covers both large and small businesses.

However, food service establishments (hotels, pubs, restaurants and cafes etc.) currently do not need a trade effluent consent. Domestic sewage is also excluded - for example used water from hand-washing and flushing of toilets.

Trade effluent is produced from the manufacturing processes associated with many everyday items and also through activities that many of us enjoy.

These include:

- **food and drink production**
- **chemical manufacture**
- **engineering**
- **backwashing of swimming pool filters**
- **laundries**
- **vehicle washing**

Many essential services, such as hospitals and local authorities, may also produce trade effluent. Water used by industry and the discharge of trade effluent to the foul sewer forms an important part of human interaction with the water cycle and therefore nature.



How does my business fit into the water cycle

The water you use is abstracted from Loughs, rivers, reservoirs and groundwater sources before being treated and put into the network of pipes which deliver wholesome water to your door.

Most uses of water will result in the generation of effluent. This effluent is usually disposed of into the foul sewer. It then travels through the foul sewers to the local Waste water Treatment Works where it is cleaned by various physical, chemical and biological processes before being discharged safely back into the environment. This may be to a lough or river or it may also be discharged into a coastal estuary, sea lough or directly to the sea.

Our sewers and Waste water Treatment Works form part of a complex, regulated used water management system. They are there for everyone's benefit and play a vital role in protecting public health and maintaining a clean, healthy environment. If the system is misused it can have serious consequences for both people and the environment. We all need to play our part in ensuring that sewerage systems are only used for the purpose for which they have been designed. For all of us, whether at home or at work, it means preventing fats, oils, food waste and sanitary items being flushed into the sewer. These can cause blockages within our sewers and pumping stations which may result in the flooding of properties or the pollution of watercourses.

You can find out more about keeping our sewers clear on our website.





Why does NI Water need to control trade effluent?

One of our strategic priorities is Nature – Protecting and enhancing the natural environment.

However, we also need to prevent health, safety and pollution hazards, and to safeguard people, infrastructure and treatment processes. We do this to make sure that public health, including that of our staff and contractors, our operations and the environment are fully protected. This includes complying with Environmental Permits issued to NI Water by the Northern Ireland Environment Agency (NIEA) for our own discharges from Waste water Treatment Works into loughs, rivers and other watercourses. We control trade effluent to ensure that all of this happens.

Trade effluent discharges range in size from just a few litres to hundreds of thousands of litres entering our sewers every day. As well as the volume, the composition of trade effluent discharges can vary considerably. Effluent from a small launderette will usually be a low volume and will contain detergents and residues from the washing of clothes. This is very different to effluent produced during an electroplating process which may be a large flow and may contain potentially toxic substances such as some metals. Trade effluent from a food processor will be different again in that the effluent may contain a significant organic load. It's this variability, together with varying capacity in our sewers, treatment works and the watercourses into which they discharge, which means that we need to carefully assess and regulate all discharges of trade effluent made into our sewerage systems.

NI Water has a dedicated trade effluent sampling team, in many cases they will visit your premises on a pre-determined frequency to take samples of your trade effluent for laboratory analysis. The results will be used to assess the quality of the discharge and to determine the strength of the effluent for charging purposes. Trade effluent discharges which are comparatively low strength will be sampled less frequently than those that represent a higher potential risk. Sample results will also be monitored to ensure parameters specified in your discharge consent are not being exceeded.

What is a consent?

A consent is a legal document issued by NI Water in our role as regulator and under powers set out in The Water and Sewerage Services (Northern Ireland) Order 2006.

The consent will contain a number of conditions including those that control the quantity and quality of the discharge. Most consents will contain numeric limits for one or more of the parameters listed below.

Volume

Volume and flow rate are controlled to prevent flooding and to make sure our sewers, pumping stations and Waste water Treatment Works are not overloaded.

pH

pH, which is a measure of acidity or alkalinity, is controlled to ensure that our sewers, pumping stations and Waste water Treatment Works, including their processes, are protected.

Temperature

Temperature is controlled in order to protect our staff working in our sewers and to ensure that odours are minimised.

Chemical Oxygen Demand

Chemical oxygen demand is a measure of the capacity of an effluent to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals. We control this to ensure that there is no detrimental impact on our Waste water Treatment Works biological processes.

Suspended Solids

Suspended solids is a measure of the particles in the trade effluent. We control suspended solids to ensure that there are no blockages in the sewers due to settlement.

Fat, oil and grease

Fats, oils and grease, also known as FOG (or Hexane Extractable Material - HEM), is controlled to prevent blockages in our sewers, pumping stations and to protect Waste water Treatment Works processes.

Ammonia

Ammonia & Sulphates are controlled to prevent the corrosion of concrete sewers, pumping and waste water treatment assets and the production of odours.



In addition the consent may also include conditions which limit or require the elimination of any persistent or potentially harmful substances – for example metals and flammable materials such as solvents. To ensure that we set consent conditions consistently and scientifically, we use limit setting methodologies that are applied throughout Northern Ireland. Our approach comprises fixed industry strengths for some sectors, statistical assessment, modelling and consultation both within NI Water and externally with the NIEA where required. NIEA may apply additional conditions to your consent because of substances contained in the discharge or the process giving rise to the discharge. These additional conditions are focused on protection of the environment by the control of Special Category Effluents, Priority Substances and Priority Pollutants. As a result of this process we also ensure that headroom (the difference between the actual discharge and the consent limit) is managed in a way that maximises available capacity for further economic growth which is also a strategic priority for NI Water.



Do I need a consent?

If you are a business operating within Northern Ireland and/or are proposing to discharge trade effluent to the public foul sewer or a NI Water Waste water Treatment Works you will need the prior written consent of NI Water.

If you require a consent, or think that you might, we suggest that you contact us with your proposals and commence the application process. We may be able to advise you in advance of any specific discharge requirements or restrictions that might be put in place. If your application is approved, you will receive a Consent to Discharge, this is a legal document and contains the conditions relating to the effluent to be discharged. Occasionally, applications cannot be accepted due to risk to the environment, people, assets and capacity limitations. If this happens we will work with you to come to an amicable agreement to resolve any issues.

It's a criminal offence under article 175 of The Water and Sewerage Services (Northern Ireland) Order 2006 to discharge trade effluent without consent, therefore it's important that you obtain one prior to making a discharge. Failure to obtain a consent may lead to enforcement action being taken by NI Water and this may result in prosecution and fines as well as reputational damage. If you're currently discharging trade effluent without a consent you must contact NI Water immediately.

It is the legal responsibility of a company which discharges or plans to discharge trade effluent, to the public foul sewer or a NI Water Waste water Treatment Works, to have or to apply for a consent.

A trade effluent consent is specific to you, your premises and the process from which the trade effluent is discharged. If you wish to alter a consent or no longer need it you must contact NI Water. You are responsible for ensuring the consent is up to date and reflects the legal entity making the discharge, the process producing the trade effluent together with flow and composition of the effluent.





Further Information

For more information please contact NI Water at
www.niwater.com/contact-us

For more information on Trade Effluent please visit
www.niwater.com/trade-effluent

For information on billing and our charges please visit
www.niwater.com/our-charges-and-fees

For general information please visit
www.niwater.com