# Guidance: Water companies: environmental permits for storm overflows and emergency overflows

*Updated:* Updated the section on ‘Shellfish waters: environmental quality design standards’ to include the new geomean standards.

This guide is to help water companies submit appropriate permit applications for storm overflows and emergency overflows.

Discharges of storm sewage and sewage in an emergency must be authorised by an environmental permit.

This guide explains:

- how to classify storm overflows
- water quality, aesthetic control and design standards for storm overflows
- monitoring and reporting requirements for storm overflows
- requirements for new or improved emergency overflows
- what to include in your permit application
- when the Environment Agency will issue a permit

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# Guidance: Water companies: control of chemicals used for dosing at waste water treatment works

This guide is for water companies who want to carry out chemical dosing at waste water treatment works (WWTW).

The Environment Agency regulates WWTW by assessing the quality of the waste water they discharge against set compliance limits. This guide explains how we set limits and control the substances used for chemical dosing.

This guide covers dosing:

- with iron and aluminium salts
- with polyelectrolytes
- for pH adjustment

## Guidance: Water companies: water treatment works discharge limits for environmental permits

This guide is for operators of water treatment works (WTW).

The Environment Agency regulates WTW by assessing the quality of the effluent they discharge against set compliance limits.

This guide explains how we control and set limits at WTW for:

- chlorine
- aluminium
- polyelectrolytes
- suspended solids – including granulated activated carbon fines
- iron

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## Guidance: Domestic sewage: discharges to surface water and groundwater

This guide is for applicants for environmental permits and operators of septic tanks or small sewage treatment plants that meet the general binding rules.

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## News story: Design and trial smart energy systems: apply for funding

Innovate UK has up to £41.5 million to invest in both the design and practical demonstration of new business models that intelligently link supply, storage and demand in heating, power and transport.

There are 2 parts to this competition. Up to £40 million is available for 3 smart energy system demonstrators, while up to £1.5 million is available for studies into new, smarter approaches to local energy.

## Supporting the smart energy revolution

The funding is part of the Industrial Strategy Challenge Fund programme, prospering from the energy revolution.

Demand to meet carbon reduction targets and the emergence of new technologies including artificial intelligence, internet of things and sensing and machine learning are creating new opportunities for smart energy systems.

This competition will help businesses to develop local energy approaches at scale that will create better outcomes for consumers and promote economic growth for the UK. By the early 2020s, it aims to prove that smarter local energy systems can deliver cleaner and cheaper energy services.

Successful projects will be supported by an energy integration network including the Energy Systems Catapult leading researchers and government and independent regulatory bodies.

## Demonstrator projects

Demonstration projects must be based in a large UK location such as a medium-sized town. They should:

- optimise energy across a range of supplies, infrastructure and demands
- deliver lower costs, lower emissions and economic benefit
- intelligently link energy supply and demand
- develop processes and skills for designing, financing, building and operating smart local energy systems
- encourage private investment to replicate these impacts across the UK

### Competition information

- the competition is open, and the deadline for applications is at midday on 25 July 2018
- projects can be led by a business, university, public sector organisation or a research and technology organisation working with others. They must include at least one SME, one academic organisation and a local authority or equivalent organisation
- you must carry out at least 90% of your project work in the UK and exploit the results here
- grant funding for each project is expected to be £13 million or higher, with total project costs between £26 million and £160 million. We expect them to last between 24 and 26 months
- business could attract up to 45% of their project costs
- a briefing event will be held on 15 May 2018

## Concepts and design

Studies into new smart, energy systems should show how they could improve future energy services in a UK location at least the size of a medium-sized town.

They should show how implementation by the early 2020s could:

- reduce energy bills by at least 25% and reduce carbon emissions in line with targets
- produce high-value local jobs and local and export business opportunities
- improve energy security and make the UK more resilient to environmental, technological, social and economic change
- improve energy efficiency and infrastructure productivity
- meet air quality targets
- create ways to test and scale new technologies and business, consumer and regulatory models to speed up industry growth

The best projects will be invited to develop their ideas further in a future competition.

## Competition information

- the competition is open, and the deadline for applications is at midday on 25 July 2018
- projects can be led by a business, academic organisation, charity, public sector organisation or local authority, research council institute or a research and technology organisation. At least one SME must be included
- you must carry out at least 90% of your project work in the UK and exploit the results here
- we expect total project costs to be between £100,000 and £200,000 and for projects to last up to 6 months
- businesses could attract up to 70% of their project costs
- a briefing event will be held on 15 May 2018