Permitting Decisions - Variation

We have decided to grant the variation for Roundhill Sewage Treatment Works operated by Severn Trent Water Limited.

The variation number is EPR/KB3701FK/V002

The permit was issued on 11/09/2026.

The variation is for the replacement of the existing, permitted CHP engine (2.6 MWth) with a new, larger CHP engine (3.5 MWth) in the same location. Also, it is for the extension of the permit boundary to the centre West to include new sampling point S4, and to correct the error within Table S1.1 of the permit so that it reads “combustion of biogas or gas oil” rather than “combustion of biogas or natural gas”.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It summarises the decision-making process to show how the main relevant factors have been taken into account. We have assessed the aspects that are changing as part of this variation, we have not revisited any other sections of the permit.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 ‘Understanding the meaning of regulated facility’, Appendix 2 of RGN2 ‘Defining the scope of the installation’ and Appendix 1 of RGN 2 ‘Interpretation of Schedule 1’.

The operator has provided the grid reference for the emission points from the medium combustion plants

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The site

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility.

The plans show the location of the part of the installation to which this permit applies on that site.

The plan is included in the permit.

Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. Assessment during determination concluded that the proposals would not result in a likely significant effect. The decision was taken in accordance with our guidance on site condition reports.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process. Assessment during determination concluded that the proposals would not result in a likely significant effect.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator’s risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Operating techniques for emissions that screen out as insignificant

Emissions of NO_X, PM_{10}, CO, SO_2 and VOCs have been screened out as insignificant through a thorough assessment of the Air Quality Impact Assessment, and so we agree that the applicant’s proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme in the form of improvement condition 9 (a) (IC9a) and 9 (b) (IC9b). These conditions relate specifically to the new sampling point S4.

IC9a requires the operator to submit a report including a summary of the sample results, a completed H1 risk Assessment and modelling outputs.

IC9b requires the operator to implement any improvements identified within the report submitted under IC9a.

Emission limits

Emission Limit Values (ELVs) have been amended for the following substances:

- Sulphur dioxide for the new CHP engine (emission point A9) to 107 mg/m^3.
- Oxides of Nitrogen (NO and NO_2 expressed as NO_2) for boiler 1 stack (emission point A2a) to 200 mg/m^3.
- Oxides of Nitrogen (NO and NO_2 expressed as NO_2) for boiler 2 stack (emission point A2b) to 200 mg/m^3.

We have amended these ELVs to be in accordance with the Medium Combustion Plant Directive emissions limits for a new CHP engine and boilers burning gas oil between 1 and 5 MWth.

Monitoring

We have decided that monitoring should be added for the new CHP using the methods detailed and to the frequencies specified in the permit.

We made these decisions in accordance with the medium combustion plant guidance Medium Combustion Plant guidance: https://www.gov.uk//guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply

We have decided that monitoring for the new sampling point (S4) for liquors from sludge thickening should be added for the following parameters, using the methods detailed and to the frequencies specified:

- Oil and grease monitoring on a weekly basis through visual assessment.
- Benzene, toluene, ethylbenzene, xylene (BTEX) once every month in accordance with EN ISO 15680.
- Hydrocarbon oil index at 10 mg/l once every day in accordance with EN ISO 9377-2.
- Free cyanide (CN-) at 0.1 mg/l once every day in accordance with EN ISO14403-1 or EN ISO 14403-2.
- Absorbable organically bound halogens (AOX) once every day at 1 mg/l in accordance with EN ISO 9562.
- Arsenic (As) at 0.1 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.

- Cadmium (Cd) at 0.1 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Chromium (Cr) at 0.3 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Copper (Cu) at 0.5 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Lead (Pb) at 0.3 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Nickel (Ni) at 1 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Zinc (Zn) at 2 mg/l once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Mercury (Hg) at 10 µg/l once every day in accordance with EN ISO 17852 or EN ISO 12846.
- Manganese (Mn) once every day in accordance with EN ISO 11885, EN ISO 17294-2 or EN ISO 15586.
- Hexavalent chromium (Cr(VI)) at 0.1 mg/l once every day in accordance with EN ISO 10304-3 or EN ISO 23913.

These monitoring requirements have been included in response to the proposal for a new sampling point (S4) as part of this variation (V002). The sampling point will be located within the extension of the permit boundary to the centre West and is for return liquors to the works inlet added to the permit, to reflect site infrastructure changes (secondary containment design relating to IC1.

These monitoring requirements have been set out by the operator within Application Support Document (Version 3, dated June 2026).

We made these decisions in accordance with the following guidance:

- Biological waste treatment: appropriate measures for permitted facilities - Guidance - GOV.UK
- Control and monitor emissions for your environmental permit - GOV.UK
- Monitoring discharges to water: environmental permits - GOV.UK
- Monitoring emissions to air, land and water (MCERTS) - GOV.UK
- Risk assessments for specific activities: environmental permits - GOV.UK

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have amended reporting in the permit to include the new CHP engine for the following parameters:

- Oxides of Nitrogen (NO and NO_2 expressed as NO_2)
- Sulphur dioxide
- Carbon monoxide
- Total VOCs

We made these decisions in accordance with Medium Combustion Plant guidance: https://www.gov.uk//guidance/medium-combustion-plant-and-specified-generator-permits-how-to-comply and Biological waste treatment: appropriate measures for permitted facilities.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.