Review of an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2010 ("EPR")

Decision document recording our decision-making process

We have decided to vary the Permit for Strongford Sewage Treatment Works (STW) operated by Severn Trent Water Limited, as a result of an application made by the Operator.

The Permit number is EPR/MP3097FY.

The Variation notice number is EPR/MP3097FY/V002.

What this document is about

This is a decision document, which accompanies a variation notice.

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Preliminary information and use of terms

We refer to the Permit (both existing and as varied) as "the **Permit**" in this document; and to the variation of the Permit as "the **Variation**".

In this document, we refer to Severn Trent Water Limited as "the **Operator**" and their Strongford STW AD Plant "the **Installation**".

The Application was duly made on 30 September 2014.

How this document is structured

- Our decision
- The legal framework
- How we took our decision
- Key issues in the determination
- Annex 1 – the decision checklist

1 Our decision

We have issued a Variation, which will allow the Operator to operate their facility as an Installation, subject to the conditions in the varied Permit.

This Variation does several different things:

- **First**, it gives effect to our decisions following the identification of the Operator as undertaking a "newly prescribed activity" (NPA) under the Industrial Emissions Directive (IED);

- **Second**, it takes the opportunity to bring earlier variations into an up-to-date, consolidated Permit. The consolidated Permit should be easier to understand and use; and

- **Third**, it modernises the entire Permit to reflect our current template. The template reflects our modern regulatory permitting philosophy and was introduced because of a change in the governing legislation. This took place when the Pollution Prevention and Control (England and Wales) Regulations 2000 ("PPC") were replaced in 2008 by a new statutory regime under the Environmental Permitting Regulations 2007 (now the 2010 version).

The introduction of new template conditions makes the Permit consistent with our current general approach and philosophy. Although the wording of some conditions has changed, while others have disappeared because of the new regulatory approach, it does not affect the level of environmental protection achieved by the Permit in any way.

We consider that, in reaching our decision, we have taken into account all relevant considerations and legal requirements and that the Permit will continue to ensure that a high level of protection is provided for the environment and human health.

The original Permit, issued on 23/09/96, ensured that the facility, would be operated in a manner which would ensure the protection of the environment specified in the existing Guidance at the time. To the extent that we have substantively altered the Permit as a result of this variation, the new requirements will deliver a higher level of protection to that which was previously achieved.

As we explained above, we do not address changes to the Permit in this document, to the extent that they give effect to either the consolidation of earlier variations, or introduce new template conditions.

2 The legal framework

The original Permit was granted on 23/09/96 under the Environmental Protection Act 1990 and regulated under the Waste Management Licensing Regulations 1994.

The Installation will be subject to the requirements of the Industrial Emissions Directive (IED) 2010/75/EU and regulated under the Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No 675). The IED was transposed in England and Wales by the Environmental Permitting (England and Wales)(Amendment) Regulations 2013 on 27 February 2013.

The IED seeks to achieve a high level of protection for the environment taken as a whole from harmful effects of industrial activities. It does so by requiring each of the industrial installations to have a permit from the competent authority (in England, the Environment Agency, or for smaller Installations, the relevant Local Authority). The IED has increased the number of activities that require an Installations permit. These are predominantly regulated as “waste operations” and include (when exceeding specific thresholds described in IED):

- hazardous waste treatment for recovery;
- hazardous waste storage;
- biowaste treatment – recovery and/or disposal;
- treatment of slags and ashes
- metals shredding;
- pre-treatment of waste for incineration/co-incineration;
- biological production of chemicals; and
- independently operated wastewater treatment works serving only industrial activities subject to the Directive

Article 11 of the IED requires the relevant authority (the Environment Agency in this case) to ensure that the Installation is operated in such a way that all the appropriate preventative measures are taken against pollution, in particular through the application of Best Available Techniques (BAT). Under Article 15(2), the Permit must contain emission limit values (ELVs) (or equivalent parameters or technical measures) for any pollutants likely to be emitted from the Installation in significant quantities. These ELVs are to be based on BAT, but also on local factors and EU Environmental Quality Standards. The overarching requirement is to ensure a high level of protection for the environment and human health.

We are required by Article 13 of the IED to keep abreast of developments in BAT. In addition, Article 13 requires us to carry out a periodic review of the permit’s conditions, and to update them if necessary.

The IED also requires the European Commission to organise an exchange of information between EU Member States so that what are known as BAT reference documents (or BREF notes) can be published, creating a level playing field across the EU, providing a consistent set of standards for new plant, to which regulatory authorities in the Member States can then have reference. These BREF notes are the basis for our own national sector technical guidance. The Commission is also required to update BREF notes on a regular basis. The waste treatment BREF notes are currently being reviewed and a final issue date is not presently known.. Under the IED, all permits will be subject to review within four years of the publication of revised

BREF notes. This means that we will need to do a further review against any new standards in the BREF notes at some time in the future.

The IED is to be implemented over several years commencing from 7 January 2013. For existing installations operating “newly prescribed activities”, the relevant date for implementation is 7 July 2015.

3 How we reached our decision

It is the Operators responsibility to ensure they are correctly regulated for the activities they are carrying out. Following adoption of the IED, the Environment Agency has engaged in a range of briefings and communications with the waste industry sector to raise awareness of the implications of the Directive and the need to ensure their facilities are correctly regulated (particularly after the implementation date of 7 July 2015 for newly prescribed activities).

Early in 2014, the Environment Agency provided further briefings to industry trade bodies and wrote to operators we believed may be implicated by these changes. We provided detailed information sheets that described the implications and the process operators should follow if they decided to have their activities permitted as Installations.

We confirmed that most facilities fell into one of two groups:

- Facilities permitted from April 2007
  When these facilities were permitted, a thorough assessment would have been carried out to confirm whether the proposed activities were using “appropriate measures” as a standard to protect the environment.

  This standard of protection is the same standards that would have been assessed against had the facilities applied as an Installation activity (i.e. BAT). The permit would have also been issued with modern conditions that ensured protection of the environment.

  We consider that these facilities are effectively ‘IED-compliant’ in terms of the technical standard of the facility with the exception of the “newly prescribed activity”. For these facilities, we consider that, in general, no further technical assessment is required, so administrative variations are an appropriate mechanism to show the activities as Installation activities. The administrative variation is a necessary route for the Operator to formally ask for this activity to be included in their permit and for us to advertise that request on our Public Register.

  It is understood that the Environment Agency granted permits for new waste activities under the Waste Management Licensing Regulations 1994 beyond April 2007. Where a facility falls into this group, the Environment Agency shall

determine whether or not the application was assessed using “appropriate measures”. Where it is determined that the application was assessed using “appropriate measures”, the application will be designated as an “administrative variation”.

- Facilities permitted before April 2007
  For these facilities, a “normal” or “substantial” variation is appropriate because a detailed technical assessment is required on aspects of the Application in addition to the administrative changes.
  Substantial variations will only be relevant where the newly prescribed activity is being added to an existing installation permit.

This Variation
The original Permit was granted on 23/09/96 and subsequently varied on 20/07/98, 18/06/02, 04/12/03 and 14/10/10. We have reviewed the documentation submitted in support of the original permit and subsequent variation application(s) in this determination. We are not satisfied that the standard of protection was assessed using appropriate measures. We have determined this Application as a normal variation. As the Variation will not have any negative effects on the environment, it is not a substantial variation and so does not require consulting on.

4 Key issues in the determination

Background
This application is one of eight submitted by the operator to update their permits in line with the changes brought about by IED. The operator has applied for all eight sites to increase their permitted quantities and a list of EWC codes they wish to accept. This will allow for greater business flexibility, allowing the operator to divert imported tankered waste to the most appropriate site for treatment.

The issued permit is a result of ongoing discussions between the operator and the Environment Agency, aspects of which have changed from the information contained in the original applications submitted. In July 2016, the Environment Agency and the operator met to discuss waste types and waste acceptance procedures.

The operator proposed to categorise EWC codes into three groups which they deemed to be reflective of the risk of the waste stream. They grouped them up into lower, medium and higher risk (the three categories of EWC codes are discussed in more detail below). The Environment Agency agreed this would be a pragmatic way of addressing the large number of EWC codes and would reflect the variation in the waste streams.

The operator discussed waste acceptance procedures and various testing methods which are used to ensure that the waste streams are suitable to be added to the anaerobic digestion treatment process. Only when the operator is confident that the

imported wastes will not have a detrimental impact on the biological treatment process will they be added to the digesters.

The operator also highlighted their wider duty as a sewage undertaker. They explained their responsibility to manage the sewage from customers through to sewage treatment and discharge of treated effluent from the UWWTD process. Accepting unsuitable wastes would risk interrupting various stages of the treatment processes, jeopardise their responsibilities as a sewage undertaker and potentially lead to breaches of discharge consents and enforcement proceedings from the Environment Agency and Water Services Regulation Authority (Ofwat).

The Environment Agency recognises the responsibilities of the operator and has taken them into account during the determination of the eight applications. The waste acceptance procedures submitted as part of the application lacks the detail that was discussed at the meeting. The Environment Agency has therefore asked for these procedures to be updated to reflect the three categories of EWC codes and the level assessment required before they are introduced to the anaerobic digestion treatment process. This update will be made through an improvement condition.

This permit

The AD plant is co-located at Strongford STW, where the operator also carries out treatment of effluent received via the sewerage network under the Urban Waste Water Treatment Directive (UWWTD). UWWTD-derived sludge from the STW is also treated in the AD plant. This is known as co-digestion.

The anaerobic digestion of indigenous (from Strongford STW) UWWTD-derived sludge is regulated by different legislation and does not form part of this permit. This permit only relates to the treatment of imported tankered waste including UWWTD derived sludge from other STW, whether owned by the operator or from third party plants.

The permits also includes 2 waste operations

- The import of digested sludge for dewatering;
- the import of waste into the STW for treatment via the UWWTD route. This permit only covers the import of the waste not the subsequent treatment.

Waste types and acceptance procedure for anaerobic digestion

The operator has applied for a range of waste streams which are deemed non-standard or ‘bespoke’ wastes. To ensure these wastes are appropriately managed and treated, the operator in consultation with the Environment Agency, has divided the EWC codes into three groups – Groups A, B and C.

- **Group A** consists of wastes listed in the Anaerobic Digestion Quality Protocol, standard rules permits and the T21 exemption. These wastes are known to be suitable for biological treatment. For the purposes of this permit these are deemed “low risk”.

- **Group B** consists of ‘bespoke’ wastes where the variance in waste streams is understood by the operator. These have been deemed “medium risk” by the operator.
- **Group C** consists of ‘bespoke’ wastes where the variance in waste streams is larger and therefore have been identified as “high risk” wastes by the operator. These wastes will be subject to more rigorous criteria under the waste acceptance procedures.

The three groups of waste streams have differing acceptance procedures based on risk. Group A, being of lower risk, has standard requirements and Groups B and C have more rigorous procedures for acceptance, testing and ensuring compatibility. The compatibility of the waste is assessed following the operators waste acceptance procedures which outlines the techniques and procedures for each grouping. The waste acceptance procedures (WAP) provided during determination have been linked to the permit as operating techniques. The operator will be required, through an improvement condition, to revise the WAP in line with the relevant guidance and with reference to the three groups of wastes to include more detail on the types of testing that are carried out.

Improvement conditions

The site does not currently have an odour management plan (OMP). The Environment Agency requires all anaerobic digestion plant operators to produce an OMP. An improvement condition has been added to the permit for one to be submitted in line with the appropriate guidance.

An improvement condition has been added to the permit requiring the operator to review their current waste acceptance procedures in line with the appropriate technical standards and make reference to the three groups of waste streams, as detailed above.

No drainage plan currently exists for the site. An improvement condition has been added to obtain one. The completion date has been set so that the operator has time to coordinate drainage plan reviews across the eight sites.

Annex 1 – decision checklist

Aspect considered	Justification / Detail	Criteria met Yes
Consultation		
Responses to web publicising	There were no responses to the web publication.	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.	✓
The facility		
The regulated facility	The extent/nature of the facilities taking place at the site required clarification. The regulated facility comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following directly associated activities: **Installations** • S5.3 A(1) (a) (iii) - Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving blending or mixing prior to submission to any of the other activities listed in S5.3 A(1). • S5.3 A(1) (a) (i) - Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving biological treatment. **DAAs** • Combustion of biogas in engines and auxiliary boilers • Auxiliary flare operation • Raw material storage • Biogas storage (prior to combustion) • Digestate storage (prior to despatch off-site) • Collection of uncontaminated site surface water (rainwater) **Waste operations** • Direct import of tankered waste to Strongford STW • Import of digested sludge for dewatering	✓
European Directives		
Applicable Directives	All applicable European Directives have been considered in the determination of the application.	✓

Aspect considered	Justification / Detail	Criteria met Yes
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.	✓
Operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes – • IPPC S5.06 – Guidance for the Treatment of Hazardous and Non-Hazardous Waste; • How to comply with your environmental permit, Additional Guidance for: Anaerobic Digestion – Reference LIT8737 – Report Version 1.0, November 2013. The proposed techniques/emission levels for priorities for control are in line with the benchmark levels contained in the above technical guidance notes and we consider them to represent appropriate techniques for the facility. We consider that some of the operating techniques do not meet the technical standards specified. We consider that there are omissions in the supporting documents. We have therefore included improvement conditions in the notice which requires a review of the site's operating techniques (see key issues).	✓
The permit conditions		
Updating permit conditions during consolidation	We have updated previous permit conditions to those in the new generic permit template as part of permit consolidation. The new conditions have the same meaning as those in the previous permit(s).	✓
Raw materials	We have specified limits and controls on the use of raw materials and fuels.	✓
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. We are satisfied that the operator can accept these wastes because they have the necessary infrastructure, operating systems and technical capability to manage these wastes in an appropriate manner. We made these decisions with respect to waste types in accordance with our Technical Guidance Note – *Framework for assessing suitability of wastes going to anaerobic digestion, composting and biological treatment*.	✓

Aspect considered	Justification / Detail	Criteria met Yes
	The operator has not explicitly used this guidance, however they have followed the general principles set out within the guidance. See in key issues.	
Improvement conditions	Based on the information on the application, we consider that we need to impose improvement conditions. See Key Issues section of the decision document.	✓
Incorporating the application	We have specified that the operator must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process. These descriptions are specified in the Operating Techniques table in the permit.	✓
Emission limits	We have decided that emission limits should be set for the parameters listed in the permit. The following substances (Nitrogen oxides, Sulphur dioxide, Carbon monoxide, Total Volatile Organic Compounds) are being emitted from the facility. ELVs based on BAT have been set for these substances and others.	✓
Monitoring	We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified. These monitoring requirements have been imposed in order to demonstrate compliance with the conditions of the permit for operations requiring the management of air emissions. We made these decisions in accordance with *LFTGN 08: Guidance for monitoring landfill gas engine emissions* and *Guidance for monitoring enclosed landfill gas flares* (LFTGN 05) which are considered the most appropriate TGN for this activity.	✓
Reporting	We have specified reporting in the permit. As the monitoring of point source emissions to air is only required annually, reporting is also required annually. Reporting forms have been prepared to facilitate reporting of data in a consistent format. These reporting requirements are deemed sufficient and proportional for the Installation.	✓
Operator Competence		
Environment Management System	There is no known reason to consider that the operator will not have the management systems 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..	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.	✓