



Determination of an application for variation to an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2016

Decision document recording our decision-making process

The Permit number is: EPR/YP3536JE
The Operator is: Portals De La Rue Limited
The Installation is: Overton Paper Mill
This Variation Notice number is: EPR/YP3536JE/V002

What this document is about

This application for a variation has been made to request a derogation for a time-limited delay in meeting the new Industrial Emissions Directive (IED) BAT Associated Emission Levels (BAT-AELs) for a direct discharge to water of chemical oxygen demand (COD), total nitrogen and total phosphorus.

EPR/BJ7310IZ/V005 – the paper and pulp sector permit review

The sector review variation was issued on 13/07/2016 following a review of conditions in the permit to deliver compliance with BAT conclusions.

Article 21(3) of the Industrial Emissions Directive (IED) requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on BAT conclusions.

We reviewed the permit for this installation by comparing the information received in response to a Regulation 60 notice with the revised BAT conclusions for the production of pulp, paper and board (2014/687/EU). These were published on 30/09/2014.

We issued the variation to deliver compliance with the BAT standards and the BAT AELs by 30/09/2018, with an accompanying decision document explaining the reasoning for the consolidated variation notice that we issued.

Variation EPR/YP3536JE/V002 – purpose of this application for a derogation

An application to transfer the permit in full from De La Rue PLC to Portals De La Rue Limited was granted on 09/03/2018 with a new permit number EPR/YP3536JE.

This variation application (EPR/YP3536JE/V002) has been made to make changes to the variation issued under the sector review (EPR/BJ7310IZ/V005), to include a derogation supporting a time-limited delay (to 30/09/2020) in meeting the new IED BAT-AELs for chemical oxygen demand (COD), total nitrogen and total phosphorus emission levels for the direct waste water discharge to receiving waters from a non-integrated speciality paper mill.

This decision document explains how we have reviewed and considered the application and why we have included the specific conditions in the permit we are issuing. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position.

Throughout this document we will use a number of expressions. These are as referred to in the glossary and have the same meaning as described in “Schedule 6 Interpretation” of the permit.

How this document is structured

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Glossary of acronyms used in this document

(Not all of these acronyms are necessarily used in this document.)

BAT	Best Available Technique(s)
BAT-AEL	BAT Associated Emission Level
BATc	BAT conclusion
BREF	Best available techniques reference document
CBA	Cost Benefit Analysis
CHP	Combined heat and power
COD	Chemical oxygen demand
DAA	Directly associated activity – Additional activities necessary to be carried out to allow the principal activity to be carried out
DD	Decision document
Derogation	from BAT AELs stated in BAT Conclusions under specific circumstances as detailed under Article 15(4) of IED where an assessment shows that the achievement of emission levels associated with the best available techniques as described in BAT conclusions would lead to disproportionately higher costs
EAL	Environmental assessment level
ELV	Emission limit value derived under BAT or an emission limit value set out in IED
EMS	Environmental Management System
EPR	Environmental Permitting (England and Wales) Regulations 2016 (SI 2010 No. 1154)
EQS	Environmental quality standard
ETP	Effluent treatment plant
EU-EQS	European Union Environmental Quality Standard
IED	Industrial Emissions Directive (2010/75/EU)
NPV	Net Present Value
P	Phosphorus
PC	Process Contribution
PEC	Predicted Environmental Concentration
SAC	Special Area of Conservation
SGN	Sector guidance note
SHPI(s)	Site(s) of High Public Interest
SSSI(s)	Site(s) of Special Scientific Interest
TGN	Technical guidance note
WFD	Water Framework Directive (2000/60/EC)

1 Our decision

We have decided to issue the variation notice to the operator. This will allow them to continue to operate the Installation, subject to the conditions in the consolidated variation notice.

As part of our decision we have decided to grant the operator's time-limited request for a derogation from the requirements of BAT Conclusion 50, Table 21 as identified in the Production of Pulp, Paper and Board BAT Conclusions document. The way we assessed the operator's request for a derogation and how we subsequently arrived at our conclusion is recorded in Annex 1 of this document.

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

The consolidated variation notice contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the notice, we have considered the techniques identified by the operator for the operation of their installation, and have accepted that the details are sufficient and satisfactory to make those standard conditions appropriate.

2 How we reached our decision

2.1 Receipt of application

The application was submitted on 03/01/2018 and duly made on 19/04/2018. This means we considered it was in the correct form and contained sufficient information for us to begin our determination but not that it necessarily contained all the information we would need to complete that determination; see section 2.2.

The operator claimed that certain information was commercially confidential and should be withheld from the public register. We considered this request and determined that: The request is considered to be reasonable as the information is of a commercial nature and includes information that could be used by competitors to determine processing capacity, performance, timing of upgrade schedules and economic data relating to improvement costs. The application for commercial confidentiality is justified in relation to the Cost Benefit Analysis (CBA) tool and Appendix 5 to the application (or sections of any documents containing costs breakdown from the CBA tool) and should be excluded from the Public Register.

We are satisfied that the information on costs is not information relating to emissions, so there is not an overriding interest in making the information publicly available. We are required to re-assess all confidentiality claims if we are minded to grant a derogation, before we go to public consultation. We decided that sufficient information on the cost benefit assessment was available for our decision to be understood by the public and that the detailed costings and the CBA tool, for which we previously granted confidentiality, should remain confidential.

Apart from the issues and information just described, we have not received any information in relation to the application that appears to be confidential in relation to any party. The application is available on our public register.

2.2 Requests for Further Information

Although we were able to consider the application duly made, we needed more information in order to complete our determination, and issued a further information request on 01/06/2018. A copy of the further information request was placed on our public register together with the responses received, except for any updates to the CBA assessment as we had already determined that this aspect of the application was confidential.

The initial queries were regarding differences between information in the CBA tool and the 'BAT Review and Derogation Application Support' document, as well as to request an update on progress with the project (Option A) and evidence that the proposed time-limited derogation until 30/09/2020 is realistic and achievable.

This prompted a series of emails to ensure that the information we were basing our determination on was consistent and definitive. The following files were provided to address this:

- Document - Response to Schedule 5 questions (OVT_BNP_ENV_REP10) 17/07/2018
- Document - BAT Review and Derogation Application Support v7 19/07/2018
- Spreadsheet - CBA Tool_v7 03/08/2018 (commercially confidential)

In addition to the responses to our further information request, we received additional information during the determination by email:

- A spreadsheet of effluent data, received 31/07/18.

We made a copy of this information available to the public in the same way as the responses to our information request.

2.3 Summary of how we considered the responses from public consultation.

The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.

We consulted on our draft decision from 01/02/2019 to 01/03/2019. A summary of the consultation responses and how we have taken into account all relevant representations is shown in Annex 3. The responses to the consultation did not lead to any amendments to the draft permit on which we consulted.

3 The legal framework

The Consolidated Variation Notice will be issued under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of other relevant legislation which also have to be addressed.

We consider that, in issuing the variation, it will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements relating to the derogation application more fully in the rest of this document (Annex 1).

We have set the ELVs in line with the BAT Conclusions other than for those parameters for which a derogation was sought as detailed in Section 5 and Annex 1 of this document. If a tighter limit was previously imposed these limits have been carried forward on the basis of no backsliding. The emission limits and monitoring tables have been incorporated into Schedule 3 of the permit.

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 this decision document. 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.

4 Overview of the site and installation

Overton Paper Mill is located to the north of the large village of Overton which has a population of less than 5,000. The mill is surrounded on three sides by agricultural land and, whilst close to residential properties, it is largely separated from the local population by the railway line. There are no complaints about the permitted activities from the local or wider population. Paper making is a historic activity associated with the village. The Paper Mill manufactures banknote papers and other high security papers, primarily from cotton fibre. They are a non-integrated speciality paper mill.

Paper is produced on any of four machines and at this stage security features may be introduced. Paper is dried, treated with surface sizing agents, re-dried and calendered before being wound onto reels.

The basic raw material, mainly cotton wastes, is treated with sodium hydroxide and hydrogen peroxide. It is mechanically cut and fibrillated.

Materials recycled from within the papermaking process (broke) are also reprocessed as a raw material. Pigments, sizes and other materials are made up into aqueous solutions or dispersions for use in the papermaking process and effluent treatment. Raw materials are stored in locations as close to the point of use as practicable.

Power and heat are provided by 1x 20.2MWth gas-fired combined heat and power (CHP) plant plus 1x 21.45MWth waste heat boiler (supplementary fired) and 2 x 13MWth standby boilers. Natural gas is used as the main fuel with gas oil as backup.

Emissions to atmosphere are derived from the combustion plant onsite and to controlled waters from the discharge of treated wastewater.

During papermaking, water is recycled as much as possible. However, small batch processing and the presence of security features has historically limited the extent of recovery.

There is an effluent treatment plant that comprises initial screening and primary treatment (sludge settlement) followed by biological treatment (activated sludge treatment) to remove solid material and active components, before passing through settlement beds and lagoons prior to discharge into the River Test. Dewatered sludge is beneficially used when applied to land (land-spread) or composted. Spare capacity is available to hold effluent requiring further treatment or effluent resulting from an emergency.

The installation is in close proximity to a Site of Special Scientific Interest (SSSI), discharging into the River Test. No European sites are present in the area.

5 Key Issues

In addition to the assessment of the time-limited derogation from the BAT-AELs (Annex 1), we have carried out further assessment on the impact of phosphorus from the discharge.

The following section should be read in conjunction with Annex 1.

Phosphorus Emission Limit Values

We requested effluent monitoring data from the applicant in order to support our own modelling, which will be more detailed and reliable than that submitted in the application because we have a more complex catchment model. The effluent data was received on 31/07/2018.

The site's improvement project is ongoing, so the effluent data is evolving over time. Substitutions and reductions have been made at source to phosphorus-containing chemicals and we understand that the majority of the Total P load is now from dosing at the ETP for the biological treatment process. The operator is working on automating some of this process, so that the dosing is more reactive to the quality of the effluent being received at the ETP. This will ensure the addition of P is minimised.

The ongoing improvements make it difficult to carry out a definitive assessment. As such, we decided to obtain one further effluent data set following on from a compliance assessment site visit in September 2018. This data has enabled us to check on performance up until 31/10/2018, which ties in with the timescales for our progression of the internal review of the derogation proposal and with work we have been doing with Natural England to set interim targets on the River Test SSSI (see Section 10 of Annex 1).

We are conscious that while we complete our assessment, the permit continues to be in force with the absence of any concentration emission limit value (ELV) for Total P. It is important that an ELV is in place at the earliest opportunity to ensure that there is no significant deterioration from the existing situation.

Prior to the 2016 sector review, the permit included a limit of 2 mg/l phosphate as an annual mean value. This limit was removed because it was too high to provide meaningful environmental protection but due to concerns over the operation of the ETP and high water use we did not have representative monitoring data to set a more appropriate value. We knew that the operator would be required to monitor the effluent and work towards compliance with the BAT-AELs.

We have now used the available data to carry out modelling on the existing impact and the predicted worst-case impact for the duration of the derogation. The derogation requests a temporary BAT-AEL of 0.1 kg/t of total P until 30/09/2020. The site is working on reducing their discharge volume from 12,500 m³/day down to 7,000 m³/day. With production at 43 tonnes per day (tpd), the higher volume at a load of 0.1 kg/t equates to 0.35 mg/l and the lowest volume would be 0.61 mg/l (see Table 1). We have included these scenarios in our modelling and the downstream impact results are comparable with the existing situation. For the purposes of our assessment, we have assumed that all phosphate species are orthophosphate, so Total P equals orthophosphate. This may overestimate the impact of orthophosphate, so is a conservative assessment.

Table 1: Simcat modelling results for annual average orthophosphate concentrations in µg/l for the proposed derogation

Location on River Test	'Existing': Portals discharge at 12,500 m ³ /d and current effluent quality	Derogation max flow: Portals discharge at 12,500 m ³ /d and mean concentrations of 0.35 mg/l P	Derogation low flow: Portals discharge at 7,000 m ³ /d and mean concentrations of 0.61 mg/l P
Immediately downstream of Portals industrial discharge	169	150	181
Overton WFD Sample point G0003943 (400 metres downstream of Portals point)	156	139	164

The permit will include the temporary BAT-AEL as a limit but we consider it important to have concentration limits too, which can be assessed more frequently than the BAT-AEL annual load. Due to the time-limited duration of the derogation, there is no benefit in setting an annual average figure for compliance purposes, as there would only be one response required to this. An absolute limit will ensure that a frequent check is carried out on the final effluent, which will ensure the operator maintains control of the residual concentrations of Total P in their effluent. We are setting this at 1 mg/l of Total P, to be assessed on a weekly basis.

In order to meet this absolute limit and allow for any variability in the quality of the effluent due to the realities of operating a biological effluent treatment process, the mean value achieved by the ETP will need to be much lower. To address this, we are also setting a target annual average of 0.5 mg/l Total P,

as well as using this concentration as a trigger limit for investigations if exceeded on a single sample.

These limits will be in combination with a reduction in the maximum permitted effluent volume from 15,000 m³/d to 12,500 m³/d.

From 2018 effluent monitoring data, we are satisfied that the operator can comply with the absolute limit (1 mg/l Total P) and that the trigger limit (0.5 mg/l Total P) is proportionate to the improvements that they have already made and should be working to maintain. We are also satisfied that these concentrations will ensure that the downstream impacts are no worse than from the discharge over recent years and that no significant deterioration will occur.

It must be recognised that this is a temporary worst-case scenario, which is an improvement on what was previously permitted, and that we are working to drive the most sustainable improvements possible from the site as a whole by addressing both the volume and the concentration of the effluent.

The limits discussed above will be time-limited to the same timescales as the derogation request. In order to meet the BAT-AELs, the operator will have had to make further improvements to the volume and/or concentration of their effluent in order to reduce their load of Total P before 30/09/2020. Their application proposes that under their preferred option, Option A, they will reduce the effluent volume to 7,000 m³/d. Using mass balance calculations, in order to meet the BAT-AEL of 0.04 kg/t of Total P at a production of 43 tpd, this equates to a concentration of 0.25 mg/l of Total P as an annual average (see Table 2).

We have used iterations of these figures in our modelling to assess the impact of the discharge under future scenarios, Options A, B and C (see Section 6 of Annex 1 for a table of the 'options'). As the volume of effluent decreases, the concentration of Total P can increase whilst still meeting the BAT-AEL. This is because the BAT-AEL is based on the load of Total P. If the tonnage of paper production increases, then the discharged load of Total P could increase too. This does not provide sufficient protection to the River Test, where we need to ensure that any improvements to effluent quality that the site has made are maintained. As such, the variation will include limits of 7,000 m³/d and 0.25 mg/l Total P as an annual average, which will be in force after 30/09/2020. In addition, an absolute limit of 0.5 mg/l Total P will apply as an upper tier limit, as derived from the model outputs.

We have chosen these figures because in addition to them equating to the BAT-AEL at current tonnages, our modelling shows that these figures predict that the WFD 'good' status of 77 µg/l will be met downstream of the discharge, which is also the interim target for the River Test SSSI (Unit 84), to be achieved by 2021. This is a significant improvement on the existing permitted situation.

Table 2: Simcat modelling results for annual average orthophosphate concentrations in µg/l for the proposed improvement options

Location on River Test	Option A at 7,000 m ³ /d and mean 0.25 mg/l P	Option B at 4,000 m ³ /d and mean 0.43 mg/l P	Option C at 1,300 m ³ /d and mean 1.32 mg/l P
Immediately downstream of Portals industrial discharge	83	94	109
Overton WFD Sample point G0003943 (400 metres downstream of Portals point)	77	86	97

We recognise that further reductions in effluent volume could be favourable, providing the concentration of Total P does not increase disproportionately. We have included improvement conditions to allow for periodic reviews of the improvement project including volume reductions and the operator's control over the dosing of the ETP, with resulting concentration of Total P in the effluent. This is with the aim of driving further improvements and ultimately working towards meeting WFD 'high' status of 42 µg/l and the long-term River Test SSSI target of 30 µg/l (see Section 10 of Annex 1). If tertiary treatment has not been installed by 30/09/2020, then consideration of this will be required under an improvement condition.

Whilst these emission limit values and improvement conditions are in place and under way, there will be an ongoing requirement for the operator to monitor and report their effluent data to the Environment Agency. Along with river monitoring data, this will enable us to update our catchment model and refine our assessment of the impact from the site. This will help to inform our discussions on progress towards WFD 'high' status and the long-term SSSI target and what future limits the paper mill must meet. If further improvements are still necessary, a cost benefit assessment may be required.

We have advised the operator that they may wish to monitor the River Test upstream and downstream of their discharge in order to gather information for their own consideration. We would also value this monitoring data and are aware that more than one river interest group is planning on organising riverine monitoring. We have made the operator aware of this and offered our involvement in discussions with the operator and interested parties. The operator has confirmed that they are willing to engage with this and we have advised them that we consider this to be within scope of work contributing towards them meeting the requirements of IC11, whereby 'work shall include discussions with the Environment Agency to understand what improvements are necessary to contribute towards long-term water quality targets for the River Test.' If all parties are able to pool resources, it could save any duplication of effort and ensure that the correct monitoring standards are met and the data is representative.

Our modelling is currently showing that emission limits on Total P would need to be extremely tight in order to meet the long-term term SSSI target of 30 µg/l

and that a further reduction in effluent volume would be likely to be required (see Section 10 of Annex 1).

Table 3: Simcat modelling results for annual average orthophosphate concentrations in µg/l for further improvements to meet the long-term SSSI target

Location on River Test	Option A at 7,000 m ³ /d and mean 0.1 mg/l P	Option B at 4,000 m ³ /d and mean 0.1 mg/l P	Option C at 1,300 m ³ /d and mean 0.1 mg/l P
Immediately downstream of Portals industrial discharge	42	35	26
Overton WFD Sample point G0003943 (400 metres downstream of Portals point)	41	34	26

Overall, we recognise that the derogation application itself is not about the operator increasing their discharge volume or pollutant load. It is regarding the BAT-AELs, which do not relate to the River Test specifically, but which the operator is required to meet by addressing the operations of their site as a whole.

During the process changes to achieve reductions in water use and effluent emissions, the ETP operations will need to adapt in response to changing pollutant loads, requiring some flexibility through the permit. The operator's work to achieve the BAT-AELs will result in improvements, including to their effluent quality and abstraction and discharge volumes. This is already in progress but the operator needs more time to complete the project in such a way as to produce the best overall outcome. We are applying a time limit to this and introducing additional measures to ensure that the needs of the River Test are addressed.

Table 4: New emission limit values for Total phosphorus

Parameter	Limit (incl. unit)	Notes
Total phosphorus (annual mean value)	0.5 mg/l	Applies as a trigger limit
	0.25 mg/l	Applies from 01/10/2020
Total phosphorus (maximum)	1 mg/l	-
	0.5 mg/l	Applies from 01/10/2020

Annex 1: Review and assessment of derogation request made by the operator in relation to BAT Conclusions which include an associated emission level (AEL) value.

1) Article 15(4)

The IED enables a competent authority to allow derogations from BAT AELs stated in BAT Conclusions under specific circumstances as detailed under Article 15(4):

By way of derogation from paragraph 3, and without prejudice to Article 18, the competent authority may, in specific cases, set less strict emission limit values. Such a derogation may apply only where an assessment shows that the achievement of emission levels associated with the best available techniques as described in BAT conclusions would lead to disproportionately higher costs compared to the environmental benefits due to:

(a) the geographical location or the local environmental conditions of the installation concerned; or

(b) the technical characteristics of the installation concerned.

Where a derogation is to be granted, the decision and the reasons for granting a derogation and justification for the conditions imposed must be clearly stated. This information must also be included in an Annex to the permit itself, as required by IED Article 15(4).

2) Cost Benefit Analysis

If a derogation is applicable under Article 15(4) of the IED, then Cost Benefit Analysis (CBA) is undertaken. The CBA allows calculation to indicate whether the costs of compliance are greater or less than the environmental benefits.

It essentially groups all the costs on one side, with all the benefits, as far as possible, on the other side. It then includes the effect of time on the value of those costs and benefits in order to produce a Net Present Value (NPV).

This gives an indication of whether those costs are disproportionate or not, but there are many sensitivities in the analysis and many aspects of the environment that cannot yet be monetised so the actual decision on disproportionality rests with the Environment Agency.

Where the NPV is positive, this indicates that the cost of compliance with the BAT AEL(s) does not outweigh the environmental benefits.

Where the NPV is negative, this indicates that the costs of compliance with the BAT AEL(s) outweigh the environmental benefits.

3) Derogation requests

The operator has requested a derogation from compliance with the AEL values included in the following BAT Conclusion as detailed below.

BAT 50, Table 21 lists the BAT-associated emission levels for the direct waste water discharge to receiving waters from a non-integrated speciality paper mill:

Parameter	Yearly average kg/t ⁽¹⁾
Chemical oxygen demand (COD)	0,3 – 5 ⁽²⁾
Total suspended solids (TSS)	0,10 – 1
Total nitrogen	0,015 – 0,4
Total phosphorus	0,002 – 0,04
Adsorbable organically bound halogens (AOX)	0,05 for decor and wet strength paper

⁽¹⁾ Mills having special characteristics, such as a high number of grade changes (e.g. of ≥ 5 per day as a yearly average) or producing very light-weight speciality papers (≤ 30 g/m² as yearly average) might have higher emissions than the upper end of the range.

⁽²⁾ The upper end of the BAT-AEL range refers to mills producing highly comminuted paper which requires intensive refining and to mills with frequent changes of paper grades (e.g. $\geq 1 - 2$ changes/day as yearly average).

The operator has proposed the following mass emission limits, based upon their existing emissions:

- COD 6.0 kg/t
- Total nitrogen 1.5 kg/t
- Total phosphorus 0.1 kg/t
- (They are already compliant with TSS and AOX)

They propose to develop improvements both to the papermaking process (water efficiency, minimisation of wastewater loading) and to the ETP, to achieve BAT through a holistic review of the site, rather than just installing a very large tertiary treatment plant. This will now take more time to implement and deliver than the original plan and so the operator is requesting a time-limited derogation until 30/09/2020.

The basis for the request is due to the technical characteristics of the installation.

On review and assessment of this information we have decided to grant the derogation requested by the operator in respect to the AEL values described in BAT Conclusion 50, Table 21, but have included other ELVs in the variation that will ensure suitable protection of the environment.

The way in which we have considered, assessed and determined the derogation request is detailed in the sections below.

4) Description of BAT

The BAT-AELs relevant to this derogation application are found in Table 21 under BAT 50. The requirement of BAT 50 is:

In order to prevent and reduce the pollution load of waste water into receiving waters from the whole mill, BAT is to use a suitable combination of the techniques specified in BAT 13, BAT 14, BAT 15, BAT 47, BAT 48 and BAT 49.

In summary, the techniques specified for the BAT listed under BAT 50 are:

- BAT 13 – reduce nutrient emissions into receiving waters by substituting chemical additives for those with low nitrogen and phosphorus contents.
- BAT 14 – reduce emissions of pollutants into receiving waters by using primary treatment and secondary treatment. *(Already achieved)*
- BAT 15 - when further removal of organic substances, nitrogen or phosphorus is needed, BAT is to use tertiary treatment.
- BAT 47 – reduce the generation of waste water using a combination of suitable techniques.
- BAT 48 - reduce fresh water use and emissions to water using a combination of suitable techniques.
- BAT 49 - reduce emission loads which can disturb the biological waste water treatment plant using suitable techniques.

The 2016 permit review variation was issued on the basis that all BAT conclusions and BAT-AELs would be met by 30/09/2018 and improvement conditions were included to ensure this. In working through these, the operator has developed a programme of activities (including water use minimisation, recycling/recirculation, fibre recovery and minimisation/replacement of chemical additives) with the collective aim of delivering the BREF requirements. They have already implemented some of these but have subsequently identified that the load reduction and flow rates to the ETP (hence sizing of any improvements at the ETP) can only be reviewed once all measures have been trialled and assessed. The minimum time required to complete the project to comply with the BAT-AEL is greater than the remainder of the 4 years available since the BAT conclusions were published, so a time-limited derogation is required.

After 30/09/2020 the operator asserts that this approach will afford compliance with the BAT hierarchy for water efficiency and achieve compliance with the BAT-AELs. Therefore, the time-limited derogation will not extend beyond the next BREF cycle, which is preferable as the next sector review may tighten the requirements further.

5) Derogation criteria - technical characteristics

The derogation is sought in relation to technical constraints at the installation, namely:

- There are aspects of the customer product requirement that can only be met by using a high quantity of N-containing wet strength agent to achieve the required banknote paper quality;
- The customer-led, very exacting product quality requirements and security measures applied to the various grades of paper that limits recycling opportunities; and
- The subsequent significant effluent volumes processed through the existing ETP.

The operator explains that other uses of paper-based products such as paper for print, tissue, and cardboard are not as constrained to deliver authenticity within the product itself; some substances could more easily be replaced and contaminants more acceptably tolerated.

The operator proposes the following approach to achieve compliance with the BAT-AELs:

- Reductions at source are achieved through substitution of phosphate-containing additives working in conjunction with the multiple customers, and contributions from the annually derived crop (cotton) are reviewed;
- Optimisation of dosing of wet strength agent to reduce the N content of process effluent;
- Improvements to the paper manufacturing process are implemented, by installing closed loop recycling on individual paper machines and associated plant, so as to increase the reuse of process water within core processes and minimise the generation of effluent to the ETP (this is currently hampered by the presence of various security features in the waste water (silks) that could contaminate other papers); and
- Following a review of the improvements on the manufacturing process, an assessment is made on the need for tertiary treatment plant after the existing ETP, in order to reduce emissions to the River Test from the installation, in line with the BAT-AELs.

The operator also notes that the local environmental conditions should be considered as part of the time-limited derogation, as it is anticipated that compliance with the BAT-AELs (as loads), at reduced effluent flows, may actually lead to increased concentrations within the discharge and that they will need to work with us to ensure water quality is protected throughout the improvement works (see Section 8 of Annex 1). An assessment of the impact on the River Test is included with the application. We carried out our own modelling to complete our assessment (see Section 5 Key Issues).

As such, the relevant technical characteristics given in the Defra Part A guidance are:

- The configuration of the plant on the site, making it more technically difficult and costly to comply.
- The effect of reducing the excess emission(s) upon other pollutant emissions, the energy efficiency, water use or waste arisings from the installation as a whole.

6) Options

The operator has presented options that combine various techniques specified in the BAT conclusions. None meet the BAT-AELs by 30 September 2018, so the timescales for completion depend on the different works proposed. To avoid shutting down the mill, the operator would have to tanker a proportion of the effluent off-site to comply with the BAT-AELs by the deadline. This is not a method mentioned in the BAT conclusions but has been considered in the assessment as a means of avoiding a derogation.

Option name	Short description of the option	Emission limit that would be achieved	Timescales for completion	Option taken forward to the CBA
Business As Usual (BAU)	Current Operations – the baseline.	Cannot meet the BAT-AELs	N/A	Yes
Option A	Recycling within the process, reduction of flows and loads plus the addition of tertiary treatment on the ETP ¹ . (Operator's Preferred Option – the proposed derogation)	BAT-AELs	September 2020	Yes
Option B	Addition of a tertiary wastewater treatment plant directly to the ETP.	BAT-AELs	2019 (February at the earliest)	Yes
Option C	Enhanced treatment at source, recycling and recovery (to a greater extent than Option A) plus some tertiary treatment.	BAT-AELs	October 2021	Yes
Option D	Techniques as for Option A with tankering of excess effluent off-site until the measures are in place. ('BAT-AEL' option)	BAT-AELs	Within compliance timeframe (September 2018) – no derogation required	Yes

Note 1: The cost of tertiary treatment is included within Option A as a conservative assessment of cost.

BAT 50 requires that a 'suitable combination' of techniques are employed in order to prevent and reduce the pollution load of waste water into receiving waters from the whole mill. We are satisfied that Option A, the operator's preferred option (proposed derogation), best meets this requirement through water use minimisation, recycling/recirculation, fibre recovery and

minimisation/replacement of chemical additives prior to reviewing the options for tertiary treatment.

The operator has referred to the BAT Conclusions and addressed all reasonable options for achieving the BAT-AELs.

We have challenged the operator regarding their timescales for compliance with the BAT-AELs under Option A and they have confirmed that the project will deliver by 30 September 2020.

7) Costs and benefits consideration

We have reviewed the Cost Benefit Analysis (CBA) and consider it to support the derogation request. Section 2 explains the principles of CBA and the key points from the CBA results are summarised below.

The CBA considers all of the Options in the table above. The operator has included upfront investment costs, which are consistent with the cost breakdowns given in the supporting information for the application. These are drawn from quotations received from a number of contractors plus an in-house estimation and we are satisfied with the figures.

There are also operating costs for sludge removal, running the ETP and tankering, as relevant to each option. Option D (tankering) is the BAT-AEL option.

Within the CBA, the net present value (NPV) for the proposed derogation (Option A) is set as zero and the analyses look at whether the environmental benefits of meeting the BAT-AELs (or other options) are higher than the costs of doing so in comparison to the proposed derogation. If the benefits outweighed the costs for any of the other options, the NPVs would be positive values. The summary results are:

		Proposed derogation		BAT-AEL		Option C		Option B
Central	£millions	0.00	⊗	-51.68	⊗	-1.97	⊗	-5.62
Sensitivity Analysis								
Lowest NPV for BAT-AEL is caused by: High energy price	£millions	0.00	⊗	-52.54	⊗	-2.55	⊗	-7.92
Highest NPV for BAT-AEL is caused by: Low energy price	£millions	0.00	⊗	-50.97	⊗	-1.40	⊗	-3.32
Scenario Analysis								
Lowest NPV for each option using highest costs and lowest benefits	£millions	0.00	⊗	-50.74	⊗	-3.45	⊗	-2.94
Highest NPV for each option using lowest costs and highest benefits	£millions	0.00	⊗	-57.15	⊗	-5.65	⊗	-10.31

The NPV is negative for all options, including under the sensitivity and scenario analyses. This means that in comparison with the proposed derogation, the cost of compliance with the BAT-AELs (additional cost of around £52 million as NPV) is disproportionate compared to the environmental benefit achieved, as are the costs of the other options considered.

We have explored a number of variations in the inputs to the CBA tool by running sensitivity analyses. These have considered the lifetime of the plant, uncertainties around upfront investment costs, the weighted average cost of capital (WACC) and the value of improvements to the River Test. We have also looked at different options for tankering, with reduced duration as well as reduced volumes of effluent for disposal and reduced costs for labour and road diesel. Under all conditions, the outcome of the assessment remains unchanged, with the BAT-AEL, Option B and Option C still resulting in negative NPVs. In particular, due to the high volume of effluent for tankering, the use of this method to meet the BAT-AELs will always produce higher costs for the operator than those gained from the benefit to the environment, in comparison to the proposed derogation.

The operator has provided a credible argument that the increased costs linked to the technical characteristics are disproportionate for achieving the BAT-AELs by 30/09/2018 compared to the environmental benefits. The costs associated with tankering mean that compliance with the BAT-AELs is disproportionate compared to the environmental benefit achieved. The outcome of the CBA supports the choice of Option A for the proposed time-limited derogation.

8) Environmental consequences of allowing a derogation and other considerations

The BAT-AELs are yearly average limits for the kg of pollutant per tonne of product produced. To enable comparison against environmental standards in our modelling work, these have been converted to concentrations in mg/l using effluent flows and product production (circa 15,000 tonnes/year). Actual emissions from the paper making activity over recent years have been reviewed. Target concentrations for COD, total N and total P have been calculated for each scenario.

Determinand	2017 monitoring data	Option A	Option B	Option C	Interim current flows	Interim reduced flows
Discharge flow (m3/d)	Mean 9,321 Max 13,759	7,000	4,000	1,300	12,500	7,000
COD (mg/l)	31.12	30.7	53.8	165.4	20.8	36.8
Total N (mg/l)	4.97	2.5	4.3	13.2	5.2	9.2
Total P (mg/l)	0.42	0.25	0.43	1.32	0.35	0.61
COD BAT-AEL (kg/t)	6.7 ⁽¹⁾	5.0	5.0	5.0	6.0	6.0
Total N BAT-AEL (kg/t)	1.08 ⁽¹⁾	0.4	0.4	0.4	1.5	1.5
Total P BAT-AEL (kg/t)	0.09 ⁽¹⁾	0.04	0.04	0.04	0.1	0.1

Note 1: These are the calculated loads that were achieved in 2017.

Where we can see that any option has both a lower discharge flow than from the 2017 monitoring data and lower concentrations of the pollutants, we can be satisfied that there will be an improvement in the water quality of the River Test. This is clearly the case for Option A, the proposed derogation option.

Under Option A, prior to the development of new treatment techniques, the improvement programme proposed by the operator will reduce the volume of water being discharged. The same programme will also reduce the nitrogen, phosphorous and COD load in the effluent. If the load of pollutants is not reduced in line with the flow reductions, concentrations of pollutants (i.e. mg/l) will increase. So in the interim period between granting the derogation and implementing new treatment techniques we may see concentrations of pollutants increase.

At low flows in the River Test, when less dilution is available to the discharge, this could cause a deterioration in the water quality downstream of the discharge point. This has been addressed by examining the target concentrations resulting from the relaxed BAT- AELs at the 'interim' current flow and reduced flow. These are presented in the table above, where it can be seen that the concentrations increase as the flow decreases.

The 'interim reduced flow' scenario is a worst-case theoretical situation that would only ever be temporary. Also, it is a potential risk at whatever point in time the improvements are being made, so is not due to the need for a time-limited derogation. In terms of the impact this could have on the River Test, the figures are all of a similar order to the 2017 monitoring data and due to the uncertainties and the conservative assumptions that would be built in to any modelling we are satisfied that both the concentrations of the interim positions and the requested temporary BAT-AELs are comparable with those resulting from the existing situation. It is important to recognise the overall load on the environment will not increase, indeed the overall load will reduce as recycling/recovery improvements are made and phosphate and nitrogen-containing additives are substituted or reduced.

In addition, the discharge is not direct to the River Test but via settlement ponds and lagoons. Although these are not relied on for treatment, they will provide some buffering of the impacts from any temporary increase to concentrations in the discharge. Also, as the mill's abstraction reduces, the River Test will receive greater baseflows from groundwater levels recovering, providing greater dilution to the discharge. As such, we consider it unlikely that the discharge will cause a significant deterioration in the water quality of the River Test as a result of the time-limited derogation.

Overall, we are satisfied that the operator's proposal (Option A) will mean that improvements to the River Test will be realised along with significant reductions in water and raw material usage. It is important that both the pollutant concentration and the discharge flow are addressed in order to achieve compliance with annual load based limits, as well as other BAT relevant to the site. The BAT-AELs will be achieved, albeit at a later date than required by the BREF, with no significant impact on the environment. Allowing

the proposed derogation would not cause any significant pollution or prevent a high level of protection of the environment as a whole to be achieved.

9) Summary of the predicted impact of derogating from the BAT-AEL on any long term or short Environmental Quality Standards / Environmental Assessment Levels.

The River Test (Upper) is expected to meet an overall 'good' classification under the Water Framework Directive (WFD). Phosphate is one of the physico-chemical quality elements assessed for this classification.

Our detailed modelling has shown that Overton Paper Mill is a significant contributor to levels of P in the River Test and predicts that 'good' status is not currently met at the WFD point downstream of the discharge. The discharge is longstanding and was permitted prior to the requirements of the WFD. Despite this, the River Test (Upper) achieved an overall 'good' WFD classification in 2016.

The WFD class boundaries below the Overton Paper Mill discharge are 77 µg/l for 'good' and 42 µg/l for 'high', both as annual means. The time-limited derogation may delay any improvements to the WFD status but it is important to recognise that there will be no significant deterioration caused by the derogation and the operator's proposals will result in an overall improvement to the impact from the site.

10) Other potential environmental impacts.

The River Test is a site of special scientific interest (SSSI). Targets have been set by the conservation agencies to enable the conservation objectives of the SSSI to be met.

The River Test is a classic chalk stream and one of the most species-rich lowland rivers in England. Shallows with gravel bottoms are a major habitat in the upper river. The water is naturally base-rich and of great clarity, but like many lowland rivers shows evidence of nutrient enrichment. It has been modified over the centuries by the construction of sluice systems and creation of channels for water meadows, water mills and navigation. The River Test has developed a very important recreational game fishery. Areas of riparian vegetation including reed fen and wet woodland are a frequent feature in the upper half of the Test Valley.

The 2021 interim target for phosphate has been set at 77 µg/l, with the long-term target set at 30 µg/l, both as an annual mean across the River Test SSSI unit. Our detailed modelling has shown that improvements to the water quality must be made to meet the SSSI targets.

Improvements to the discharge from Overton Paper Mill will improve water quality, with modelling predicting that the interim target can be met by achieving the BAT-AEL. However, it is unlikely that the long-term SSSI target will be met by achieving the BAT-AEL and possibly not even through reductions from this discharge in isolation. As with the WFD standard, it is important to recognise that the discharge is longstanding and the operator's

proposals will result in an improvement both to the River Test and the installation's overall environmental impact. Further work will be required beyond the timescales and remit of the time-limited derogation in order to address the long-term standard, which is currently agreed locally between the Environment Agency and Natural England and is unlikely to be assessed as a regulatory target before 2027.

Further information on our assessment is included in Section 5 Key Issues, with details of the emission limit values and Improvement Conditions that we are setting to protect the water quality of the River Test. Although the statutory drivers for this are the BAT-conclusions and the WFD, it does have the benefit of supporting achievement of the new interim target for orthophosphate for the River Test SSSI and working towards the long-term target.

With regard to the proposals of this application, we have completed an assessment of activities likely to damage the SSSI and concluded that the permission is not likely to damage the interest features. We are satisfied that this is also applicable to the protected habitats and species identified in our screening: chalk rivers, European eel and water vole. We have consulted with Natural England on our assessment and they were included as a consultee in our minded to consultation.

11) Permit conditions

The permit variation will include time-limited BAT-AELs as requested in the derogation. Due to the timescales involved in the determination of the application, we are conscious that these are not in place before the 30/09/2018 deadline for the BAT-AELs from the BREF. Nevertheless, the operator is already required to monitor and report their effluent quality, which means we will be able to assess for compliance against the temporary BAT-AELs that they have requested.

The BAT-AEL for total P is an annual load, which does not fully address the 'river needs' requirements for the River Test. Section 5 (Key Issues) explains how we will reinstate emission limit values (ELV) for P to limit the concentration (mg/l) in the discharge.

We are satisfied that the operator has been working through the improvement conditions currently included in their permit and have been refining their work programme to meet the BAT conclusion and BAT-AELs. Some stages have already been completed and improvements are in place. However, certain actions have highlighted that the complete project would not be finished in time to meet the deadline for the BAT-AELs. For example, the effluent load and flow reduction improvements need to be progressed further before analysing the new effluent to enable detailed design and implementation of any additional effluent treatment. In addition, the precise details of the measures contributing towards meeting the BAT-AELs are evolving as the operator learns more about the impact and interrelations of different aspects of their operations. This includes the need to improve the dosing on the ETP

through automating some of this process, so that it is more reactive to the quality of the effluent being received, ensuring the addition of P is minimised.

We have reviewed the application proposals and are satisfied that the approach under Option A is appropriate. Broadly speaking, this involves water use minimisation, recycling/recirculation, fibre recovery and minimisation/replacement of chemical additives. Whilst the variation will not include restrictions around the specifics of these measures, it will include improvement conditions to require periodic updates on progress with the improvements.

Further improvement conditions will be included to review the effluent quality following the site's improvements upstream of the ETP and require the consideration of tertiary treatment. This is necessary to drive the best possible effluent quality (within reason and with the WFD and SSSI targets in mind), even if the BAT-AELs are achieved without it, and to maximise the benefit from tertiary treatment.

The permit will incorporate the relevant operating techniques to reflect the programme of works proposed under the derogation application.

12) Conclusion

The derogation request meets the technical characteristic criteria of IED Article 15(4) with an appropriate range of options reviewed and taken forward for CBA. The operator has demonstrated that the costs of achieving the BAT-AEL by 30 September 2018 are disproportionate to the environmental benefits. This is mainly due to the high costs associated with tankering.

Option A, has been identified as the preferred option for the proposed derogation. We are satisfied with this conclusion from the options appraisal, which is based on a detailed work programme, with a number of work streams aimed at delivering compliance for the site as a whole. The appropriate techniques are being implemented, with improvement work already underway, but this will require a time-limited derogation of two years until 30/09/2020. The CBA supports this request, as well as the choice of Option A.

The environmental impacts of the derogation were assessed and considered not significant and are acceptable. Improvement conditions will be included to require periodic updates on progress with the improvements and to review the effluent quality following these improvements.

Annex 2: Improvement Conditions

Based on our assessment of the proposals in the derogation application, we consider that we need to set improvement conditions so that the desired outcomes are achieved by the installation. These additional improvement conditions are set out below - justification for them is provided at the relevant section of the decision document (Section 11 of Annex 1).

In addition, we have set new deadlines for IC5 and IC7 because we have not finalised the outcomes of these conditions with the operator and still consider the requirements to be of relevance.

Reference	Improvement Condition	Completion date
IC8	<p><u>BAT Conclusion 48</u></p> <p>The operator shall undertake a review of the measures necessary to comply with BAT 48c during the planned changes under the water and fibre recovery projects proposed to meet the BAT-AELs, which will affect the flow and composition of effluent for treatment.</p> <p>The review shall include, but not be limited to:</p> <ul style="list-style-type: none"> • consideration of extant proposals for automation of the effluent treatment plant (ETP); • the nutrient dosing regime; • site responsibilities and lines of communication between process and ETP operations; • proposals of measures to support compliance with BAT 48c; and • procedures for the maintenance of records of process adjustments relevant to the ETP (to contribute to the review required under IC10 in this table). <p>A summary report on the scope of the review, its conclusions and proposed measures to address the points raised in this Improvement Condition, including timescales for implementation, shall be submitted to the Environment Agency for approval.</p>	<p>Summary report by 01/06/19</p>
IC9	<p><u>BAT Conclusion 50, Table 21</u></p> <p>The operator shall submit, for approval by the Environment Agency, reports setting out progress to achieving the BAT Conclusion AELs where a derogation has been applied for and granted. The reports shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> 1) Current performance against the BAT Conclusion AEL (including all effluent treatment plant monitoring data from the last three years to date). 	<p>Progress reports by:</p> <p>01/06/19 01/12/19 01/06/20</p>

	<p>2) Methodology for reaching the AELs.</p> <p>3) Associated targets/timelines for reaching compliance by 30/09/20 for emissions from the effluent treatment plant.</p> <p>4) Any alterations to the initial plan (including whether tertiary treatment will be installed).</p>	
IC10	<p>The operator shall review the performance of the effluent treatment plant against the conditions of this permit and verify that they have control over their effluent quality following the improvements at the installation under IC8 and IC9 in this table.</p> <p>The review shall include an assessment of compliance with BAT conclusions 15, 16 and 48c by persons or organisations with suitable experience in the techniques detailed in these BAT Conclusions. Details of the assessor's qualification shall be agreed with the Environment Agency in advance of the assessment being undertaken.</p> <p>The operator shall submit a report on the findings of the review, with details of procedures developed during the improvements for achieving and demonstrating satisfactory process control and timescales to implement any remedial actions to maintain compliance with BAT conclusions 15, 16 and 48c.</p> <p>The operator shall implement the actions as approved in writing and from the date approved by the Environment Agency.</p>	<p>Within 12 months of the achievement of the BAT-AELs and no later than 30/09/2021</p>
IC11	<p>The operator shall undertake a review of phosphorous emissions from the effluent treatment plant (ETP) against the standards set in Table S3.2 of this permit, following completion of improvements to achieve the BAT-AELs and the reduction of phosphorous to residual levels (from dosing at the ETP).</p> <p>The operator shall identify available measures for further reduction of phosphorous emissions to the River Test (both in terms of effluent quality and volume reduction) and complete an appraisal of the options. This work shall include discussions with the Environment Agency to understand what improvements are necessary to contribute towards long-term water quality targets for the River Test.</p> <p>A report on the review and the options appraisal shall be submitted to the Environment Agency, along with ETP monitoring data from the last three years to date.</p>	<p>31/12/2021</p>

Annex 3: Advertising and Consultation on the draft decision

This section reports on the outcome of the public consultation on our draft decision carried out between 01/02/2019 and 01/03/2019. The draft decision record and associated draft Consolidated Variation Notice was published and made available to view on gov.uk website between the dates detailed above.

Summary of responses to consultation and the way in which we have taken these into account in the determination process.

Response received from
Natural England (04/03/2019)
Brief summary of issues raised
<p>We acknowledge that you are working to achieve the orthophosphate concentration target for WFD 'good' status downstream of the discharge (77 µg/l) in determining this application. This may not be adequate to deliver the conservation enhancement necessary for the River Test SSSI channel unit 84 to achieve the target for favourable condition (30 µg/l).</p> <p>I look forward to continuing to work with the Environment Agency to improve the quality of the habitat in the upper reaches of the River Test SSSI. The SSSI in this location includes not just the river channel but also the riverside land alongside the settlement lagoons, and this area has not been assessed in some time by Natural England. To address this I would appreciate the opportunity to accompany Agency staff involved in this permit work should a future visit be organised.</p>
Summary of actions taken or show how this has been covered
<p>We have included the interim target of 77 µg/l for the River Test SSSI in our assessment and are satisfied that the improvements to the discharge will help towards achieving this by 2021. We acknowledge that further work and improvements will be necessary to meet the long-term target of 30 µg/l by 2027. Although this is not yet a statutory target, we have included an improvement condition (IC11) to address this as more evidence becomes available.</p> <p>Natural England will be included in ongoing Area-led work between the Environment Agency, the operator and other interested parties where relevant and appropriate. The operator has confirmed in writing their willingness to engage with the Environment Agency on the following matters:</p> <ul style="list-style-type: none">• Monitoring upstream and downstream of their discharge to the River Test• Maintenance of settlement ponds and lagoons• Monitoring at outfall to river (potential to reinstate this)• Site visit for interested parties <p>We have advised the operator that we would consider this to be within the scope of work contributing to their achievement of IC11 of the permit's Improvement Programme, whereby 'work shall include discussions with the Environment Agency to understand what improvements are necessary to contribute towards long-term water quality targets for the River Test.'</p> <p>(See Section 5 Key Issues and from item 8 onwards of Annex 1 for the full detail of our considerations relevant to this response.)</p>

Response received from
Salmon & Trout Conservation (04/03/2019)
Brief summary of issues raised
<p>Salmon & Trout Conservation are concerned about this derogation. The river Test, from our Riverfly Census evidence is currently suffering from excess phosphates, and is not functioning as a healthy chalkstream should be.</p> <p>We understand that these changes are part of the BAT process, but we believe Portals should undergo further in-river monitoring above and below the plant to better understand their impact on the river Test. We also remain concerned that the settlement ponds below the discharge permit point may be releasing legacy phosphates, chemicals and sediment into the river.</p> <p>We hope if this derogation were to go ahead, Portals would undertake this additional monitoring and investigations to help protect the river Test.</p>
Summary of actions taken or show how this has been covered
<p>We acknowledge that improvements to the water quality of the River Test are desirable and are satisfied that the new emission limit values in the permit variation are an appropriate starting point. Further work and improvements are required by the permit and the operator will need to participate with the Environment Agency on this.</p> <p>Salmon & Trout Conservation will be included in ongoing Area-led work between the Environment Agency, the operator and other interested parties where relevant and appropriate. The operator has confirmed in writing their willingness to engage with the Environment Agency on the following matters:</p> <ul style="list-style-type: none"> • Monitoring upstream and downstream of their discharge to the River Test • Maintenance of settlement ponds and lagoons • Monitoring at outfall to river (potential to reinstate this) • Site visit for interested parties <p>We have advised the operator that we would consider this to be within the scope of work contributing to their achievement of IC11 of the permit's Improvement Programme, whereby 'work shall include discussions with the Environment Agency to understand what improvements are necessary to contribute towards long-term water quality targets for the River Test.'</p> <p>(See Section 5 Key Issues and from item 8 onwards of Annex 1 for the full detail of our considerations relevant to this response.)</p>