Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Kimberly-Clark Limited

Northfleet Paper Mill
Crete Hall Road
Northfleet
Kent
DA11 9AD

Variation application number

EPR/BJ7379IZ/V007

Permit number

EPR/BJ7379IZ

Northfleet Paper Mill
Permit number EPR/BJ7379IZ

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The schedules specify the changes made to the permit.

Changes introduced by this variation notice

The BAT conclusions for production of pulp, paper and board were published on 30 September 2014 in the Official Journal of the European Union (L284) following a European Union wide review of Best Available Techniques (BAT), implementing decision 2014/687/EU of 26 September 2014. A variation was issued on 16 June 2016 to address compliance with the relevant BAT conclusions, with improvement conditions to track progress against future compliance by 30 September 2018. In carrying out the improvement conditions, the operator has established that the installation will not meet the new Industrial Emissions Directive (IED) BAT Associated Emission Level (AEL) in BAT conclusion 50, Table 20 for the total nitrogen emission level for the direct waste water discharge to receiving waters.

This variation permits a time-limited delay to 31 December 2021 in meeting this BAT-AEL through the introduction of a temporary BAT-AEL (Table S3.3 of this permit), with improvement conditions (IC5 and IC6 in Table S1.3 of this permit, plus IC7 to address continuing improvements). These will allow the installation to continue a programme of activities (including closure/upgrade of the paper machines to deliver water use minimisation and recycling/recirculation, along with the removal of chemical additives from the process) with the collective aim of delivering the BREF requirements. A brief explanation of the derogation is included in the Annex to the conditions of this permit.

Brief description of the process

The installation produces soft tissue paper under the following IED Schedule 1 listed activities:
Section 6.1 Part A(1)(b) Producing, in an industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.
Section 5.4 Part A(1)(a)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment.
Section 1.1 Part A(1)(a) Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts.

It is located on the Thames Estuary at TQ 62640 74189. The immediate area is predominantly industrial although housing is located along the southern boundary. There are designated habitat sites within the relevant screening criteria of the installation.

The main raw material used on site is raw Environmentally Certified Fibre (ECF) pulp that is delivered by sea. Storage immediately after unloading is not within the installation boundary as the store also supplies other mills.

The pulp is mixed with large amounts of water (and dyes and conditioning chemicals) to supply the paper machines with a suspension of the correct density. The paper machines form the fibres into a web and remove most of the water to leave tissue paper. Most of the water is recycled back to the start of the process. The paper is creped by sticking it to a large drum and scraping it off again as a continuous process. There are three paper machines with a total capacity of approximately 90,000 tonnes per annum.

Two rolls of paper are combined to form a 2 ply-sheet. This is then split down into small rolls. The small rolls are packaged for sale.

As much waste as possible is recycled back into production. Some of the waste paper (broke) may need to be decolourised before re-use. Production runs are kept as long as possible to avoid this and to allow coloured broke to be recycled to the same product where possible. A feature of the creping process is that the temperature of the broke needs to be kept below 28^{o}C to avoid residual adhesive becoming tacky and causing damage to the web with the consequent increase in broke production.

Wastewater is treated in a biological secondary effluent treatment plant before being recovered back to the production process or discharged to the River Thames.

The installation generates steam for use as a heat source in drying the finished paper. There are four boilers, each with a rated thermal input of 12 MWth, supplying, in total, 26 tonnes of steam per hour. The boilers are fuelled by natural gas on an uninterruptible gas supply. There are also three Yankee hood combustion units bringing the sites maximum thermal input up to 61.5 MWth.

The principal emissions are oxides of nitrogen from the boiler and process heaters and treated aqueous effluent containing suspended solid matter and matter with a biochemical oxygen demand.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	**Date**	**Comments**
Application BJ7379 (EPR/BJ7379IZ/A001)	14/02/2001	Duly made Application for paper mill.
Permit EPR/BJ7379IZ determined	25/04/2002	Permit issued to Kimberly-Clark Limited
Variation application EPR/BJ7379IZ/V002 received	21/07/2008	Duly made
Request for additional information made on 19/09/2008	15/10/2008	
Variation EPR/BJ7379IZ/V002 determined	08/01/2010	Variation issued
Environment Agency Paper and Pulp Sector Review 2011 Variation determined EPR/BJ7379IZ/V003	15/02/2012	Varied and consolidated permit issued in modern condition format
Variation application EPR/BJ7379IZ/V004	10/11/2011	Duly made Variation to add new Effluent Treatment Plant, water treatment plant and to extend site boundary
Variation determined EPR/BJ7379IZ/V004	08/05/2012	
Variation application EPR/BJ7379IZ/V005	12/07/2013	Duly made Variation to include combustion units and refurbishment / upgrade of paper machine 3
Variation determined EPR/BJ7379IZ/V005	13/09/2013	

Status log of the permit		
Description	**Date**	**Comments**
Regulation 60 Notice dated 21/11/14 (Notice requiring information for statutory review of permit)	21/11/2014	Technical standards detailed in response to the information notice. Information to demonstrate that relevant BAT conclusions are met for the production of pulp, paper and board as detailed in document reference L284.
Regulation 60 response received	31/03/2015	
Request for further information sent and received	07/10/2015	
Variation and consolidation determined EPR/BJ7379IZ/V006	16/06/2016	Statutory review of permit - BAT Conclusions published 30 September 2014 Varied and consolidated permit issued
Application EPR/BJ7379IZ/V007 (variation and consolidation)	01/11/2019	Duly made Application for a time-limited derogation from the BAT-AEL for emissions to water of Total N
Additional information received	11/08/2020	Further details on total nitrogen and volume of discharge, relevant BAT conclusion, project timescales and future review of raw materials
Draft decision EPR/BJ7379IZ/V007	16/09/2020	Varied and consolidated permit. Consultation 06/10/2020 to 03/11/2020.
Final decision Variation determined EPR/BJ7379IZ/V007 (Billing ref: LP3608PF)	10/11/2020	Varied and consolidated permit issued.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/BJ7379IZ

Issued to

Kimberly-Clark Limited ("the operator")

whose registered office is

1 Tower View
Kings Hill
West Malling
Kent
ME19 4HA

company registration number **00308676**

to operate a regulated facility at

Northfleet Paper Mill
Crete Hall Road
Northfleet
Kent
DA11 9AD

to the extent set out in the schedules.

The notice shall take effect from 10/11/2020

Name	Date
Philip Lamb	**10/11/2020**

Authorised on behalf of the Environment Agency

Schedule 1

Only the following conditions have been varied by the consolidated permit EPR/BJ7379IZ

The following conditions were varied as a result of an Environment Agency initiated variation:

Condition 2.3.3 is added to reference Table S2.1

Condition 4.3.3 is added

Table S1.1 as referred to in condition 2.1.1 is updated to amend the activity references and rearrange some text

Tables S4.2 and S4.3 as referred to in condition 4.2.2 are amended to include monitoring and reporting of energy usage

The following conditions were varied as a result of the application made by the operator:

Table S1.2 as referred to in condition 2.3.1 is updated to introduce new operating techniques

Table S1.3 as referred to in condition 2.4.1 is updated to reflect new improvement conditions and completed and amended improvement conditions

Table S3.2 as referred to in condition 3.1.1 is updated with a reduction to the maximum daily flow

Table S3.3 as referred to in condition 3.1.3 is amended to include a time-limited derogation from the BAT-AEL

Annex to conditions is added to explain the derogation under the IED

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BJ7379IZ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BJ7379IZ/V007 authorising,

Kimberly-Clark Limited ("the operator"),

whose registered office is

1 Tower View
Kings Hill
West Malling
Kent
ME19 4HA

company registration number **00308676**

to operate an installation at

Northfleet Paper Mill
Crete Hall Road
Northfleet
Kent
DA11 9AD

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Philip Lamb	**10/11/2020**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 table S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.

3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1 and S3.2;

(b) annual limits specified in table S3.3; and

(c) process monitoring specified in table S3.4.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the performance parameters set out in schedule 4 table S4.2 using the forms specified in table S4.3 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.3 ; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
AR1	Section 6.1 Part A(1)(b) Producing, in an industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.	Production of tissue paper products on three paper machines: PM1, PM2 and TM3	From receipt, handling and storage of pulp and other raw materials associated with the production of tissue paper to storage and despatch of final product produced at the site.
AR3	Section 5.4 Part A(1)(a)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment.	Treatment by aerobic biological treatment.	From the treatment of aqueous effluent by activated aerobic sludge digestion to the final processing stages and the discharge of treated effluent to the Thames Estuary.
AR4	Section 1.1 Part A(1)(a) Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts.	Four natural gas fuel fired boilers each with a rated thermal input of 12 MWth. Three Yankee hood combustion units with gas fired burners rated at: Paper machine 1: 5 MWth Paper machine 2: 4.4 MWth Paper machine 3: 4.1 MWth	From the combustion of gas to the release of exhaust gases to atmosphere. Maximum thermal input of up to 61.5 MWth.
	Directly Associated Activity		
AR6	Conversion	Conversion of sheet paper to soft paper rolls and manipulation of rolls.	Paper produced at the site.
AR7	Treatment of Water	Treatment of water abstracted from boreholes for use in the papermaking process and boiler house.	Water treated for use in the specified process and/or associated activities, including use in the papermaking process and boiler house.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application EPR/BJ7379IZ/A001	Response to Question 2.3 given in section 2.3 of the application	15/02/2001
Variation application EPR/BJ7379IZ/V002	Response to Part C of the application form	16/07/2008
Additional information	Response to questions 1 (oil storage arrangements) and 2 (impact of emissions to air of particulates from oil combustion)	17/08/2008
Variation application EPR/BJ7379IZ/V004	Response to section C3 question 3	10/11/2011
Response to request for further information	Email outlining techniques for disposal of sump contents.	21/02/2012
Variation application EPR/BJ7379IZ/V005	Response to Question 3, Operating techniques, which includes Table 3 (Technical Standards), given in Part C3 of the application form. Document 02 for Changes to existing activities.	12/07/2013
Response to Regulation 60 Notice dated 21/11/14	Technical standards detailed in response to BAT conclusions 1, 2, 5 to 8, 10, 12 to 18, 47, 50, 52, and 53 of the notice provided under Regulation 60 of Environmental Permitting Regulations. Best available techniques as described in BAT conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for production of pulp, paper and board.	31/03/2015
Response to Request for Further Information	Further information demonstrating compliance with BAT conclusions 1, 5, 13, 15, 17, 47 and 50.	07/10/2015
Variation application EPR/BJ7379IZ/V007	BAT Review and Derogation Application document (01 November 2019).	01/11/2019
Annex to conditions in variation EPR/BJ7379IZ/V007	Operating techniques for BAT Conclusion 50.	-

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the BAT conclusion AELs where BAT is currently not achieved, but will be achieved before 30 September 2018. The report shall include, but not be limited to, the following: 1) Current performance against the BATc AEL. 2) Methodology for reaching the AELs. 3) Associated targets / timelines for reaching compliance by 01 October 2018 4) Any alterations to the initial plan The report shall address BATc: 50. The operator shall submit reports on progress with the approved compliance plan on a six monthly frequency specified by this condition.	Complete
IC2	The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 30 September 2018. The report shall include, but not be limited to, the following: 1) Methodology for achieving BAT. 2) Associated targets / timelines for reaching compliance by 30 September 2018 3) Any alterations to the initial plan The report shall address BATc: 5 and in particular proposals to move towards operating within the BAT AEPL range for waste water flow of 3-20m^3/t. The operator shall submit reports on progress with the approved compliance plan on a six monthly frequency specified by this condition.	Complete
IC3	The operator shall submit for approval by Environment Agency, a report setting out detailed proposals for further techniques to reduce noise emissions (a) from steam release vents, and; (b) the installation as a whole. Proposals shall be based on the findings of the mill wide noise survey referred to in the operator`s response (to our Request for Further Information) dated September 2015 (received 7 October 2015) and shall demonstrate how compliance with BATc 17 is maintained.	31/03/2021
IC4	The operator shall submit to the Environment Agency for approval, a report detailing the process monitoring required under Table S3.4 of this permit, for particulate emissions from air emission points A3, A5, A7, A9, A10, A13 listed in table S3.1 of this permit. The submission shall make reference to techniques used to minimise and manage the release of particulate matter including; the source of particulate matter; available abatement/control measures; monitoring techniques/methods and inspection frequencies.	31/03/2021

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC5	BAT Conclusion 50, Table 20 The operator shall submit, for approval by the Environment Agency, reports setting out progress to achieving the BAT Conclusion AEL where a derogation has been applied for and granted. The reports shall include, but not necessarily be limited to, the following: 1) Current performance against the BAT Conclusion AEL (including all effluent treatment plant monitoring data from the last year to date). 2) Methodology for reaching the AELs. 3) Associated targets/timelines for reaching compliance by 31/12/2021 for emissions from the effluent treatment plant. 4) Any alterations to the initial plan.	Progress reports by: 31/03/2021 30/09/2021
IC6	BAT Conclusion 5 The operator shall submit, for approval by the Environment Agency, reports setting out progress to achieving the BAT-associated waste water flow for a non-integrated paper mill. The reports shall include, but not necessarily be limited to, the following: 1) Current performance against the BAT-associated waste water flow. 2) Methodology for reaching the BAT-associated waste water flow. 3) Associated targets/timelines for reaching compliance by 31/12/2021. 4) Any alterations to the initial plan.	Progress reports by: 31/03/2021 30/09/2021
IC7	The operator shall undertake a review of total nitrogen emissions from the effluent treatment plant (ETP) against the standard set in Table S3.3 of this permit, following completion of improvements to achieve the BAT-AEL. The operator's review shall investigate measures for the further reduction of total nitrogen emissions to the River Thames (both in terms of effluent quality and volume reduction), including a reduction/substitution of the biocide used in the production process. A report on the review including timescales for any proposed changes shall be submitted to the Environment Agency for approval, along with ETP monitoring data from the last two years to date.	31/03/2024

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
-	-

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 on site plan in Schedule 7 of this permit	Boiler Plant Boilers 1 to 4 fired on natural gas	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	250 mg/m^3	As per extractive method	Annual	BS EN 14792
		Carbon monoxide	50 mg/m^3	As per extractive method	Annual	BS EN 15058
A2 on site plan in Schedule 7 of this permit	PM1 Burner exhaust	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	No limit set	-	-	-
		Carbon monoxide	No limit set	-	-	-
A3 on site plan in Schedule 7 of this permit	PM1 Dust extractor vent	Particulate matter	No limit set	-	-	-
A4 on site plan in Schedule 7 of this permit	PM2 Burner exhaust	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	No limit set	-	-	-
		Carbon monoxide	No limit set	-	-	-
A5 on site plan in Schedule 7 of this permit	PM2 Dust extractor vent	Particulate matter	No limit set	-	-	-
A6 on site plan in Schedule 7 of this permit	PM3 Burner exhaust	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	No limit set	-	-	-
		Carbon monoxide	No limit set	-	-	-
A7 on site plan in Schedule 7 of this permit	PM3 Dust extractor vent	Particulate matter	No limit set	-	-	-
A9 on site plan in Schedule	Perini 15 dust plant exhaust	Particulate matter	No limit set	-	-	-

7 of this permit						
A10 on site plan in Schedule 7 of this permit	Perini 17 dust plant exhaust	Particulate matter	No limit set	-	-	-
A11 on site plan in Schedule 7 of this permit	PM3 mist extraction system	No parameters set	-	-	-	-
A12 on site plan in Schedule 7 of this permit	PM3 steam exhaust system	No parameters set	-	-	-	-
A13 on site plan in schedule 7 of this permit	Perini 16 dust plant exhaust	Particulate Matter	No limit set	-	-	-

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W1 on site plan in Schedule 7 Emission to the Thames Estuary at NGR TQ 62652 74678	Effluent treatment plant and surface water drainage	Maximum daily flow	11,000 m^3/day 5,000 m^3/day note 5	24 hours	Daily	MCERTS self-monitoring of effluent flow scheme
		Mean daily flow	-	24 hours	Daily	MCERTS self-monitoring of effluent flow scheme
		pH (units)	6 (min) 9 (max)	Instantaneous	Continuous	MCERTS approved instrumentation
		Temperature	30 °C	Instantaneous	Continuous	Standard temperature sensor
		Chemical oxygen demand (COD) or Total organic carbon (TOC) note 1	-	24-hour flow proportional sample	Daily note 2	BS ISO 15705
		Chemical oxygen demand (COD)	200 mg/l	Spot Sample	Daily note 2	BS ISO 15705
		Biochemical oxygen demand (BOD_5)	40 mg/l	24-hour flow proportional sample	Weekly note 4 (once a week)	BS EN 1899-1
		Total suspended solids (TSS)	40 mg/l	24-hour flow proportional sample	Daily note 2	BS EN 872
		Total suspended solids (TSS)	60 mg/l	Spot sample	Weekly note 4 (once a week)	BS EN 872
		Total nitrogen	No limit set	24-hour flow proportional sample	Weekly notes 2,4 (once a week)	BS EN 12260
		Total phosphorus	No limit set	24-hour flow proportional sample	Weekly notes 2,4 (once a week)	BS EN ISO 6878 followed by BS EN ISO 15681- 1 Or BS EN ISO 15681- 2
		Metals total (Zn, Cu, Cd, Pb, Ni, Hg)	-	Spot sample	Twice per annum	BS EN ISO 15586 BS EN ISO 17852 for Hg only
		Metals dissolved	-	Spot sample	Twice per annum	BS EN ISO 15586

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
		(Zn, Cu, Cd, Pb, Ni, Hg)				BS EN ISO 17852 for Hg only
		Hazardous Pollutants screen note 3	-	Spot sample	Twice per annum	GCMS analysis at UKAS accredited laboratory

Note 1: If TOC is already monitored as a key process parameter, there is no need to measure COD, however the correlation between the two parameters must established and checked regularly.

Note 2: If internal rapid test methods are used, they must be cross referenced by external tests to EN or ISO standards monthly.

Note 3: Hazardous pollutants screen substances are: Chlorpyriphos, Cypermethrin, Endosulphan (A & B), 4-nonylphenols & Nonylphenol ethoxylates, PCP, TBT.

Note 4: Weekly samples shall be collected by following a randomised sampling program as far as is practicable.

Note 5: Limit applicable from 01/01/2022.

Table S3.3 Annual limits			
Substance	**Medium note 1**	**Limit (including unit) applicable from 01/10/2018**	**Limit (including unit) applicable from 01/01/2022**
Chemical oxygen demand (COD)	Water	0.15 – 1.50 kg/tonne	0.15 – 1.50 kg/tonne
Total suspended solids (TSS)	Water	0.02 – 0.35 kg/tonne	0.02 – 0.35 kg/tonne
Total nitrogen	Water	0.23 kg/tonne	0.01 – 0.15 kg/tonne
Total phosphorus	Water	0.003 - 0.012 kg/tonne	0.003 - 0.012 kg/tonne
Adsorbable organically bound halogens (AOX)	Water	0.05 kg/tonne	0.05 kg/tonne

Note 1: For integrated or multi product mills where the BAT AEL range has been calculated according to a mixing rule based on their share of the discharge, based on information supplied by the operator, the operator must notify the Environment Agency if the product/ raw material mix changes by more than 10% in any direction.

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Abstracted water inlet	Hazardous Pollutants screen note 1	Twice per annum as per discharge monitoring	GCMS analysis at UKAS accredited laboratory	Spot sample
A1	Oxygen	As appropriate to reference	BS EN 14789	
	Stack gas pressure		Traceable to national standards	
	Stack gas temperature		Traceable to national standards	
	Water vapour		BS EN 14790	Unless sample is dried
A3, A5, A7, A9, A10, A13	Particulate matter			As agreed in writing with the Environment Agency
Note 1: Hazardous pollutants screen substances are: Chlorpyriphos, Cypermethrin, Endosulphan (A & B), 4- nonylphenols & Nonylphenol ethoxylates, PCP, TBT.				

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Emissions to air Parameters as required by condition 3.5.1.	A1	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Every 6 months	1 January, 1 July

Table S4.2 Performance parameters			
Parameter note 1	**Frequency of assessment**	**Units**	**Units**
Water inputs to the Mill note 1	Annually	tonnes	m^3/t
Water used in manufacturing note 1	Annually	tonnes	m^3/t
Other inputs of water/moisture note 1	Annually	tonnes	m^3/t
Water outputs note 1	Annually	tonnes	m^3/t
Waste/raw material inputs note 1	Annually	tonnes	
Waste/raw material outputs note 1	Annually	tonnes	
Net total annual production note 1	Annually	tonnes	
Energy usage	Annually	MWh	
Note 1. All to be monitored and reported in accordance with associated guidance note issued with variation EPR/BJ7379IZ/V006.			

Table S4.3 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by the Environment Agency	16/06/16
Water and Land	Form water 1 or other form as agreed in writing by the Environment Agency	16/06/16
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	16/06/16
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	10/11/20

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6

Interpretation

“accident” means an accident that may result in pollution.

“ADt” means Air Dried Tonnes (of pulp) expressed as 90% dryness. ADt for paper should be reported at “normal” or average moisture content for the production over the course of any one year, noted but not corrected.

AOX is adsorbable organic halides measured according to the EN ISO:9562 standard method for waste waters.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“disposal”. Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

Metals monitoring as follows: Zn (Zinc), Cu (Copper), Cd (Cadmium), Pb (Lead), Ni (Nickel), Hg (Mercury).

Net production is as follows:
i) For paper mills: the unpacked, saleable production after the last slitter winder, i.e. before converting.
(ii) For off-line coaters: production after coating.
(iii) For tissue mills: saleable tonnes after the tissue machine before any rewinding processes and excluding any core.
(iv) For market pulp mills: tonnage after packing (pulp at 90 % dryness, i.e. 'air dry' - AD).
(v) For integrated pulp mills: net pulp production refers to the tonnage after packing (pulp at 90 % dryness, i.e. AD) plus the pulp transferred to the paper mill (pulp calculated at 90 % dryness, i.e. air dry). For the net paper production of the integrated mill refer to (i)

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

Total nitrogen (Tot-N). Total nitrogen (Tot-N) given as N, The sum of organic nitrogen, free ammonia and ammonium (NH_4^+-N), nitrites (NO_2^- -N) and nitrates (NO_3^- -N).

Total phosphorus (Tot-P). Total phosphorus (Tot-P) given as P, includes dissolved phosphorus plus any insoluble phosphorus carried over into the effluent in the form of precipitates or within microbes.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

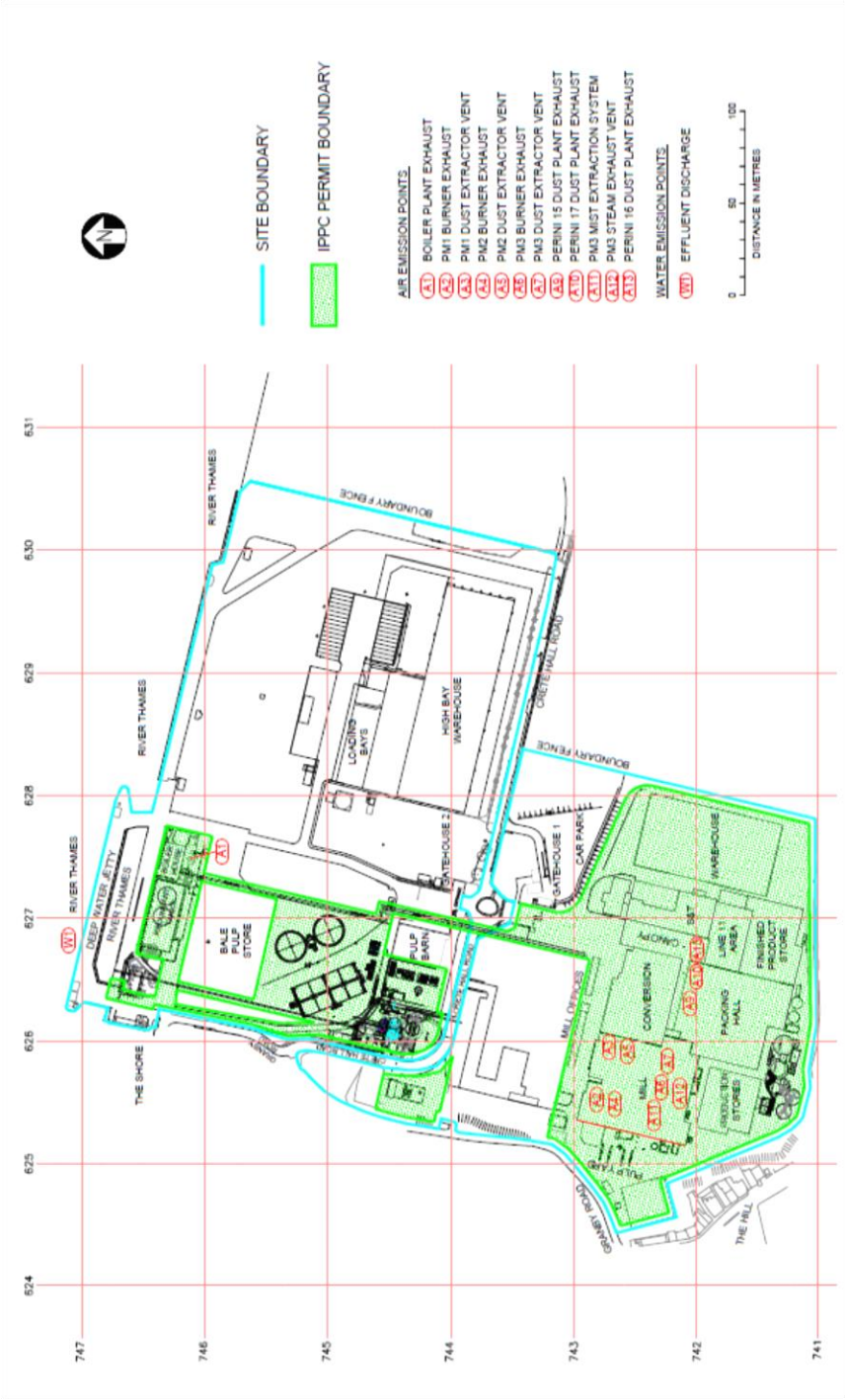
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT

Annex to conditions – Derogation under Industrial Emissions Directive

Derogation under Article 15(4) of the Industrial Emissions Directive.

DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

Operating Techniques
We have considered the operator's proposed techniques and its comparison against other relevant techniques as described in the BAT Conclusions in the Commission Implementing Decision 2014/687/EU for the Paper and Pulp sector, published 30 September 2014 (the BREF). Our full reasoning is given in our decision document that accompanies the permit determination. The operator requested a time-limited derogation until 31 December 2021 from BAT Conclusion 50 to prevent and reduce the pollution load of total nitrogen in the direct waste water discharge, as specified in Table 20 of BAT-associated emission levels (AELs), on the basis of the technical characteristics of the paper machines. The operator's application considered 11 options for meeting the BAT-AEL, with four being taken forward for detailed assessment. They propose to cease operating paper machines PM1 and PM2 and upgrade paper machine TM3, to remove the use of latex in the process. The Environment Agency has reviewed the request and concluded that: • The operator has supplied a valid derogation request against BAT 50 of the BAT conclusions, for total nitrogen in the direct waste water discharge. The derogation request is based on technical characteristics relating to the configuration of the plant requiring the use of latex. The operator has described 11 relevant options for achieving the BAT-AEL and justified the screening out of seven options. Four options were taken forward to conduct a cost benefit analysis (CBA), in addition to continuing with business as usual (BAU). The operator's preferred option involves the closure of lines PM1 and PM2 and the upgrade of TM3 to enable production without the use of latex. This will enable the operator to reduce the amount of fresh water abstracted and effluent discharged and meet the BAT-AEL for total nitrogen. The operator requires further time to complete these changes and has proposed an annual average emission limit value (ELV) of 0.23 kg/t product for total nitrogen, to be applicable until 31 December 2021. • The operator has provided a credible argument that the increased costs linked to the technical characteristics are disproportionate for achieving the BAT-AEL. Viable options were taken forward for CBA and were adequately described in the CBA. The CBA using central assumptions shows negative net present values (NPVs) for the BAT-AEL, the effluent treatment plant (ETP) upgrade and for cooling treated effluent under various scenarios and therefore the cost of compliance is disproportionate compared to the environmental benefit achieved. The outcome of the CBA supports the choice of the proposed derogation project to close lines PM1 & PM2 and upgrade TM3 under the proposed time-limited derogation. • We are satisfied that the operator has demonstrated that the proposed derogation option achieves the best overall environmental outcome and we have no concerns regarding the ongoing BAU impact on the River Thames for the duration of the time-limited derogation. It is important that both the pollutant concentration and the discharge flow are considered in order to achieve compliance with the annual load based limit, as well as other BAT relevant to the site. The BAT-AEL for total nitrogen will be achieved, albeit at a later date than required by the BREF, with no significant impact on the environment. In addition, the waste water flow will also reduce to meet the BAT associated range. 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. • The necessary permit conditions and nature of the derogation are in keeping with previous derogation requests in this sector, which we have granted by variation to the environmental permit.

The Environment Agency is therefore granting this derogation request subject to the following:

- An improvement condition requiring periodic updates on progress with improvements.
- All work to comply with the applicable BAT-AELs for the installation is completed by 31 December 2021. The BAT-AEL for total nitrogen will not be applicable until this deadline but a temporary limit will apply: total nitrogen 0.23 kg/tonne.
- All existing permit emission limit values (ELVs) will remain in force.