Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Smurfit Kappa UK Ltd

Snodland Paper Mill
Mill Street
Snodland
Kent
ME6 5AX

Variation application number

EPR/BJ7433IQ/V004

Permit number

EPR/BJ7433IQ

Snodland Paper Mill

Permit number EPR/BJ7433IQ

Introductory note

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

The following notice gives notice of the variation and consolidation of an environmental permit.

The installation currently has the capacity to produce approximately 270,000 tonnes of paper annually from around 300,000 tonnes of recovered waste paper using two paper machines known as PM7 and PM8. This application for a substantial variation relates to the following changes:

- installation of a new paper machine (PM9) in a new building, replacing the two existing machines (PM7 and PM8);
- an upgrade to the anaerobic digestion (AD) facility within the effluent treatment plant (ETP); and
- a new combined heat and power plant (CHP), comprising two biogas spark ignition engines.

The proposed changes will result in an installed capacity to produce 257,929 tonnes of paper per annum. Recovered waste paper intake will remain as currently at up to 300,000 tonnes per annum.

Improvements to the ETP will include the installation of a new, highly efficient Internal Recirculation (IR) AD reactor. The IR reactor will generate biogas with high concentrations of methane which will be captured and used in the biogas-fired CHP units. These units will recover the energy value inherent in the biogas by generating electricity and heat. The resulting combustion gases will discharge to air via a new stack emission point (A7).

The changes to the ETP will result in a more stable and consistent treated effluent discharge temperature and suspended solids content and will deliver a reduction in the levels of many of the key pollutants. Discharge flow rate will be substantially reduced by the introduction of a fully integrated process water management system which maximises water recovery and recycle to the process. A significant proportion of treated effluent will be returned to the process water system for re-use.

The introduction of modern buildings and facilities will aid in the prevention of fugitive emissions.

The schedules specify the changes made to the permit.

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 BJ7433 received (EPR ref EPR/7433IQ/A001)	28/02/2001	-
Response to request for information	Request dated 15/06/2001	Response dated 29/06/2001
Response to request for information	Request dated 29/11/2001	Response dated 05/06/2002
Permit determined BJ7433 (EPR ref EPR/7433IQ)	22/01/2003	Permit originally issued to Smurfit Townsend Hook
Environment Agency Paper and Pulp Review 2011 Variation determined EPR/BJ7433IQ/V002 Permit EPR/BJ7433IQ	03/02/2012	Varied and consolidated permit issued in the modern condition format
Agency variation determined EPR/BJ7433IQ/V003	24/07/2013	Agency variation to implement the changes introduced by IED
Application EPR/BJ7433IQ/V004	Duly made 10/10/2014	-
Response to request for information	Request dated 20/11/2014	Response dated 01/12/2014
Additional information	20/11/2014	Commissioning plan for PM9
Additional information	22/11/2014	Joint operating procedures for the operation of the CHP plant
Response to request for information	Request dated 05/12/2014	Response dated 22/12/2014
Additional information received	18/12/2014	Information regarding site boundary
Additional information received	21/01/2015	Revised site plan
Variation determined EPR/BJ7433IQ/V004 (Billing ref QP3739EC)	05/02/2015	Varied and consolidated permit issued in modern condition format.

Other Part A installation permits relating to this installation		
Operator	**Permit number**	**Date of issue**
SSE Generation Limited	EPR/BJ7506IM	22/01/2003

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/BJ7433IQ

Issued to

Smurfit Kappa UK Ltd ("the operator")

whose registered office is

c/o Smurfit Kappa UK Ltd
Cunard Buildings
Water Street
Pier Head
Liverpool
L3 1SF

company registration number 1017013

to operate part of a regulated facility at

Snodland Paper Mill
Mill Street
Snodland
Kent
ME6 5AX

to the extent set out in the schedules.

The notice shall take effect from 05/02/2015

Name	Date
Anne Nightingale	**05/02/2015**

Authorised on behalf of the Environment Agency

Schedule 1

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

2.2.1, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.3.5, 2.3.6, 2.5.1 (added), 3.1.1, 3.5.1, 3.5.4, 3.6.1 (added), 3.6.2 (added), 4.2.2, 4.2.3, 4.3.3 (added), 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.4.1.

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

3.1.3 (added), 4.3.1, 4.3.2.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/BJ7433IQ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BJ7433IQ/V004 authorising,

Smurfit Kappa UK Ltd ("the operator"),

whose registered office is

c/o Smurfit Kappa UK Ltd
Cunard Buildings
Water Street
Pier Head
Liverpool
L3 1SF

company registration number 1017013

to operate part of a regulated facility at

Snodland Paper Mill
Mill Street
Snodland
Kent
ME6 5AX

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

Name	Date
Anne Nightingale	**05/02/2015**

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.

1.5 Multiple operator installations

1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

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 outlined in green and excluding the areas outlined in pink, on the site plan at schedule 7 to this permit, that represents the extent of the installation covered by this permit and that of the other operator of the installation.

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 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.5 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.

2.3.6 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 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) process monitoring specified in table S3.3;

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.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

(a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;

(b) implement the pests management plan, from the date of approval, 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 S4.3 using the forms specified in table S4.4 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 S4.4; 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.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

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:

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

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

In any other case:

(e) the death of any of the named operators (where the operator consists of more than one named individual);

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

(g) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

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 "without delay", 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 and WFD Annex I and II operations**	**Limits of specified activity**
A1	Section 6.1 Part A(1) (b)	Producing, in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day. Manufacture of paper and board from recycled fibre on PM9.	Receipt and storage of raw materials, including waste, treatment of waste paper. Re-pulping waste paper and card. Production of paper and board. Storage and despatch of the board. Recovery of clarified water and fibre via dissolved air flotation.
A2	Section 5.4 Part A(1) (a)(i)	Disposal of non-hazardous waste with a capacity of more than 50 tonnes per day involving biological treatment. Treatment of effluent from papermaking activity. (D8)	Effluent treatment comprising anaerobic digestion and aerobic treatment and settlement prior to discharge to water, including associated storage. Including collection, treatment and dispatch of gas from the anaerobic digestion process to biogas combustion. Effluent from papermill and on-site power generation facility only.
	Directly Associated Activity		
A3	Treatment of Water	Treatment of water abstracted from River Medway, Leybourne Stream and Boreholes.	From the treatment of abstracted water to its transfer into the process.
A4	Surface water disposal	Discharge of site drainage via oil interceptor.	Drainage system via emission points indentified in Table S3.2.
A5	Biogas combustion	Combustion of biogas in two combined heat and power (CHP) engines with an aggregated thermal input of 3.3 MWth. R1: Use principally as a fuel to generate energy.	From the receipt of biogas produced at the on-site anaerobic digestion process to combustion via CHP engines with the release of combustion gases. Including storage of biogas.
A6	Auxiliary flare operation	Use of an auxiliary flare required only during periods of breakdown or maintenance of CHP engines. D10: Incineration on land.	From the receipt of biogas produced on-site to incineration with the release of combustion gases.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application BJ7433IX Response to request for further information	Response to questions 1 and 2.	05/06/02
Application EPR/BJ7433IQ/V004	Response to questions in application forms C2 and C3 and associated documents. Excluding all techniques associated with the proposed Baling Plant.	10/10/14
Additional information	Response to the following questions of the Schedule 5 Notice dated 20/11/2014: 1 - 21, Excluding all techniques associated with the proposed Baling Plant.	01/12/14
Additional information	Response to the following questions of the Schedule 5 Notice dated 05/12/2014: 1, 2.	22/12/14
Additional information	The commissioning plan for PM9.	20/11/2014
Additional information	The joint operating procedures for the operation of the CHP plant and the management of steam (OP 125-45 dated 01/11/14, Appendix C of the Commissioning Plan).	22/11/2014

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
9.21 to 9.24	--	Complete
9.25	--	Superseded
9.26	--	Complete
9.27	The Operator shall carry out remedial works to defects in the mill drainage system identified through the 2009 survey, as detailed in the Operator's letter dated 30 January 2014.	31/01/2017
9.28	--	Complete
9.29	The Operator shall submit a written report on the potential for further heat recovery, to include but not be limited to, the white water, freshwater and hall water/glycol heating systems. The Operator shall submit justified proposals, with timescales for implementation, for approval by the Environment Agency.	31/08/2017
9.29.b	The Operator shall implement the heat recovery techniques identified in IC9.29.	01/09/2018
9.30	The Operator shall submit a written report on proposals to cease the landfilling of pulping rejects. The report shall include characterisation of the separate pulping rejects waste streams and review treatment and recovery techniques (including energy recovery) which will move the waste stream (EWC code 03 03 07) up the waste hierarchy. The Operator shall submit justified proposals, with timescales for implementation, for approval by the Environment Agency.	Within 18 months of completion of commissioning

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
9.31	The Operator shall submit a written commissioning report detailing the performance against the approved commissioning plan for PM9. The report shall include but not be limited to: • Monitoring results from emission point A7 demonstrating compliance with emission limit values specified within Table S3.1 of the permit; • A comparison of the monitoring results from emission point A7 against the predicted emissions specified in the Air Quality assessment provided within the application; • A summary of the environmental performance of the plant as installed against the design parameters set out in the application; • Details of any modifications made during commissioning that change the details included within the application; and • A review of the performance of the facility against compliance with the conditions of this permit, detailing where standards and limits are not being met. Should the report indicate the emissions are having a significant effect a report shall be submitted detailing the measures to reduce emissions and proposed implementation dates. The report shall be used to review the emission limits and monitoring requirements specified in Table S3.1 of this permit.	Within 6 months of the completion of commissioning.
9.32	The Operator shall undertake a review of the optimisation of the performance of the Effluent Treatment Plant. A written report shall be submitted to the Environment Agency, detailing proposals to reduce the emission limits values set in table S3.2 of this permit, to those set out in Table 2.6 of the variation application, taking into account applicable forthcoming BAT-AELs.	Within 24 months of the completion of commissioning.
9.33	The operator shall submit a BAT assessment for the production of heat and power to serve the PM9 installation post SSE contract termination 2018. The report shall include the feasibility of taking heat from the Aylesford Newsprint Installation.	31/12/2016

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for production of paper and board	
Maximum quantity	
Waste code	**Description**
20 01 01	Paper and Cardboard – Municipal Waste
15 01 01	Paper and Cardboard Packaging
19 12 01	Paper and Cardboard – From the Mechanical Treatment of Waste

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location[NOTE1]	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A6	Auxiliary flare	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Hourly average	Monitoring to be undertaken in the event the flare has been operational for more than 10% of a year (876 hours)	BS EN 14792
		Carbon monoxide	50 mg/m^3			BS EN 15058
		Total VOCs	10 mg/m^3			BS EN 12619:2013
A7	Biogas engine flue	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	160 mg/m^3			BS EN 14791
		Carbon monoxide	1400 mg/m^3			BS EN 15058
		Total VOCs	1000 mg/m^3			BS EN 12619:2013
A8	Former Mist Extraction	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A9	Low vacuum fans (3 off)	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A10	Wet End Pulper Extraction fan	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A11	Vacuum pump exhaust	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A12	Pre-dryer Hood Exhaust	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A13	Dry End Pulper Extraction fan	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A14	After-dryer Hood Exhaust	No Parameters Set	No limit set	--	--	Permanent sampling access not required
A15	Cooling Tower Exhaust	No Parameters Set	No limit set	--	--	Permanent sampling access not required

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location[NOTE1]	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A16, A17	Biogas pressure relief valves	No Parameters Set	No limit set	--	Record of operating hours	Permanent sampling access not required

Note1: Locations as shown on site plan 'Mill Layout Emissions' 831 000 B 012

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location[NOTE3]	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method[NOTE2]**
W1	Effluent Treatment plant	Volume	8,000 m^3	24 hours	Continuous	MCERTS self-monitoring of effluent flow scheme
W1	Effluent Treatment plant	Flow rate	0.28 m^3/s	One Second	Continuous	MCERTS self-monitoring of effluent flow scheme
W1	Effluent Treatment plant	pH	6 - 9	Instantaneous	Continuous	MCERTS Approved Instrumentation
W1	Effluent Treatment plant	Temperature	30°C	Instantaneous	Continuous	Standard Temperature Sensor
W1	Effluent Treatment plant	Total suspended solids	60 mg/l	Flow Proportional Composite Sample over 24 Hour Period	Daily	BS EN 872
W1	Effluent Treatment plant	Total suspended solids	90 mg/l	Spot	Daily	BS EN 872
W1	Effluent Treatment plant	Biochemical Oxygen Demand	40 mg/l	Flow Proportional Composite Sample over 24 Hour Period	Weekly	BS EN 1899-1 (1998) BS EN 1899-2 (1998) SCA blue book 130 ISBN 0117522120
W1	Effluent Treatment Plant	Chemical Oxygen Demand	No limit set	Flow Proportional Composite Sample over 24 Hour Period	Daily	As Agreed in Writing with the Environment Agency
W1	Effluent Treatment plant	Visible Oil and/or Grease	None	Instantaneous	Daily	Visual
W1	Effluent Treatment plant	Total Petroleum Hydrocarbons	No limit set	Flow Proportional Composite Sample over 24 Hour Period	Weekly	As Agreed in writing with the Environment Agency

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location[NOTE3]	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method[NOTE2]**
W1	Effluent Treatment Plant	Cadmium and its compounds, expressed as Total Cadmium	1 µg/l	Flow Proportional Composite Sample over 24 Hour Period	Quarterly	BS EN ISO 17294 BS EN ISO 5961 BS EN ISO 1185
W1	Effluent Treatment Plant	Pentachloro-phenol (PCP)	0.5 µg/l	Flow Proportional Composite Sample over 24 Hour Period	Quarterly	BS EN ISO 6468:1997 BS 6068-2.57:1997
W1	Effluent Treatment Plant	Chloroform	7.5 µg/l	Flow Proportional Composite Sample over 24 Hour Period	Quarterly	As Agreed In Writing with the Environment Agency
W1	Effluent Treatment Plant	Gamma-Hexachlorocyclo-hexane (y-HCH)	30 ng/l	Flow Proportional Composite Sample over 24 Hour Period	Quarterly	As Agreed In Writing with the Environment Agency
W1	Effluent Treatment Plant	Hexachlorocyclo-hexane (all Isomers) (HCH)	49 ng/l	Flow Proportional Composite Sample over 24 Hour Period	Quarterly	As Agreed In Writing with the Environment Agency
W1	Effluent Treatment Plant	Tri-butyl tin (all Isomers) (TBT)	No limit set	Flow Proportional Composite Sample over 24 Hour Period	Quarterly	SCA blue book 142 ISBN 0117523607 BS EN ISO 17353:2005
W1	Effluent Treatment Plant	Total Phosphorous	2 mg/l	Flow Proportional Composite Sample over 24 Hour Period	Weekly	BS 6068
W1	Effluent Treatment Plant	Ammoniacal Nitrogen	No limit set	Flow Proportional Composite Sample over 24 Hour Period	Weekly	BS 6068-2.11:1984
W1	Effluent Treatment Plant	Total Nitrogen	No limit set	Flow Proportional Composite Sample over 24 Hour Period	Weekly	BS EN ISO 119505-1, BS 6068-2.62, BS EN12260, BS 6068-2.83
W1	Effluent Treatment Plant	Dangerous Substances[NOTE1]	No limit set	Flow Proportional Composite Sample over 24 Hour Period	Annual	GC/MS analysis to be carried out by UKAS accredited laboratory
W2	Surface water	No parameters set	No limit set	--	--	--
W3	Surface water	No parameters set	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[NOTE3]	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method[NOTE2]**
6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17	Mill drainage	No parameters set	No limit set	--	--	--

Note 1: General screen for Water Framework Directive Dangerous Substances and other plant protection substances: aldrin, dieldrin, endrin, atrazine, endosulfan, hexachlorobenzene, simazine, trifluralin, azinphos methyl, fenitrothion, dichlorvos, cypermethrin, TBT and chlorpyrifos.

Note 2: Where in-house analysis is used for compliance assessment purposes for the following substances, a duplicate sample shall be sent for external analysis (UKAS/ISO17025) at a six monthly frequency: suspended solids, biological oxygen demand, total mercury and its compounds, total cadmium and its compounds, pentachlorophenol and its compounds, hexachlorocyclohexane (all isomers).

Note 3: Locations as present on site plan 831 000 B 012:
W1: emission to River Medway;
W2: emission to Brookland Lake;
W3: emission to River Medway;
3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13: emissions to the Mill Creek
14, 15, 16, 17, 18, 19, 20, 21, 22: emissions to River Medway

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Biogas from Digester	Flow	Continuous	In accordance with EU Weights and Measures Regulations	--
Biogas from Digester	Hydrogen sulphide	Continuous	--	Gas monitors calibrated every 6 months to manufacturers requirements
	Methane	Hourly		
Digester and associated tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary
Digester and associated tanks	Integrity checks	Weekly	Visual assessment	--

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	A6, A7	Annually	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Quarterly	1 January, 1 April, 1 July, 1 October
Performance Indicators	Installation	Quarterly	1 January, 1 April, 1 July, 1 October

Table S4.2 Annual production/treatment	
Parameter	**Units**
Whole digestate	Tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
BOD/ADT	Quarterly	kg/ADT
Suspended Solids/ADT	Quarterly	kg/ADT
Total Nitrogen/ADT	Quarterly	kg/ADT
Phosphorus/ADT	Quarterly	kg/ADT
CO_2/ADT	Quarterly	Tonnes/ADT
NO_x/ADT	Quarterly	Tonnes/ADT
Paper breaks	Quarterly	Number and duration (hours)
Auxiliary flare operation	Annually	Hours
Ragger wire (EWC 03 03 07)	Annually	Tonnage
Light rejects (EWC 03 03 07)	Annually	Tonnage

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by the Environment Agency	05/02/2015
Water	Form water 1 or other form as agreed in writing by the Environment Agency	05/02/2015
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	05/02/2015
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	05/02/2015
Waste subject to condition 4.2.5	Waste tonnage return form or other form as agreed in writing by the Environment Agency	N/A

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	
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 (6% moisture).

"annually" means once every year.

“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.

“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.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No. 675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“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.

“hazardous property” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No. 894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

“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.

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

“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.

“Water Framework Directive Dangerous Substances and other plant protection substances are”: aldrin, dieldrin, endrin, atrazine, endosulfan, hexachlorobenzene, simazine, trifluralin, azinphos methyl, fenitrothion, dichlorvos, cypermethrin, TBT and chlorpyrifos.

“year” means calendar year ending 31 December.

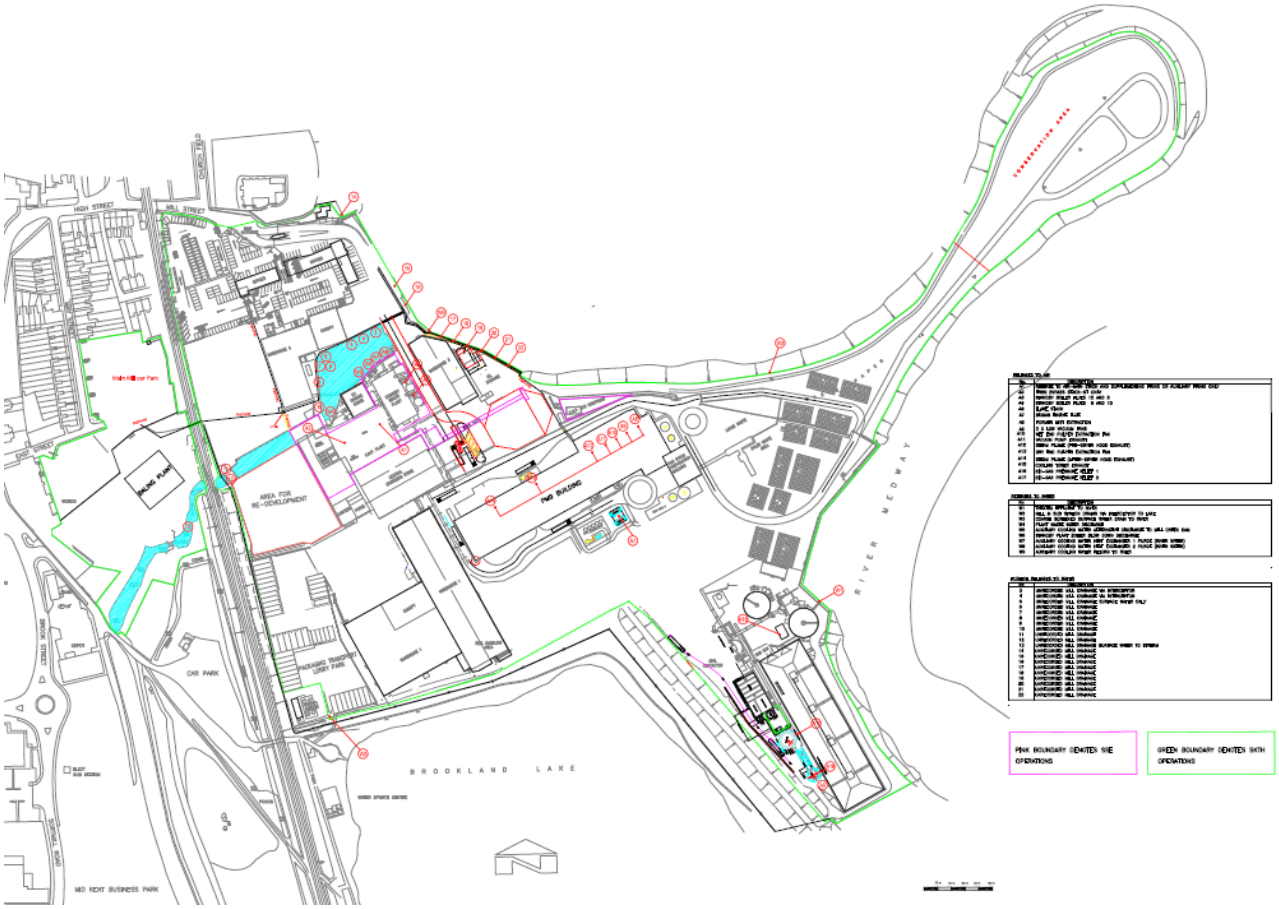
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

(a) 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

(b) 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.

Schedule 7 – Site plan



Installation layout (taken from plan ref. ‘Mill Layout Emissions’ 831 000 B 012 submitted 21/01/2015)

END OF PERMIT

Permit Number: EPR/BJ7433IQ Operator: Smurfit Kappa UK Ltd

Facility: Snodland Paper Mill Form Number: Air1 / 05/02/2015

Reporting of emissions to air for the period from DD/MM/YYYY **to** DD/MM/YYYY

Emission Point	Substance/ Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A6	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Hourly average		BS EN 14792		
A6	Carbon monoxide	50 mg/m^3	Hourly average		BS EN 15058		
A6	Total VOCs	10 mg/m^3	Hourly average		BS EN 12619:2013		
A7	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	Hourly average		BS EN 14792		
A7	Sulphur dioxide	350 mg/m^3	Hourly average		BS EN 14791		
A7	Carbon monoxide	1400 mg/m^3	Hourly average		BS EN 15058		
A7	Total VOCs	1000 mg/m^3	Hourly average		BS EN 12619:2013		

(1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
(2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
(3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
(4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed …… Date……..
(Authorised to sign as representative of Smurfit Kappa UK Ltd)

Permit Number: EPR/BJ7433IQ Operator: Smurfit Kappa UK Ltd

Facility: Snodland Paper Mill Form Number: Water1 / 05/02/2015

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY **to** DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
W1	Volume	8,000 m^3	24 hours		MCERTS self-monitoring of effluent flow scheme		
W1	Flow rate	0.28 m^3/sec	One Second		MCERTS self-monitoring of effluent flow scheme		
W1	pH	6 - 9	Instantaneous		MCERTS		
W1	Temperature	30°C	Instantaneous		Standard Temperature Sensor		
W1	Total suspended solids	60 mg/l	Flow Proportional Composite Sample over 24 Hour Period		BS EN 872		
W1	Total suspended solids	90 mg/l	Spot		BS EN 872		
W1	Biochemical Oxygen Demand	40 mg/l	Flow Proportional Composite Sample over 24 Hour Period				
W1	Chemical Oxygen Demand	--	Flow Proportional Composite Sample over 24 Hour Period				
W1	Visible Oil and/or Grease	None	Instantaneous		Visual		
W1	Total Petroleum Hydrocarbons	None	Flow Proportional Composite Sample over 24 Hour Period				
W1	Cadmium and its compounds, expressed as Total Cadmium	1 µg/l	Flow Proportional Composite Sample over 24 Hour Period				

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
W1	Pentachlorophenol (PCP)	0.5 µg/l	Flow Proportional Composite Sample over 24 Hour Period				
W1	Chloroform	7.5 µg/l	Flow Proportional Composite Sample over 24 Hour Period				
W1	Gamma-Hexachlorocyclohexane (y-HCH)	30 ng/l	Flow Proportional Composite Sample over 24 Hour Period				
W1	Hexachlorocyclohexane (all Isomers) (HCH)	49 ng/l	Flow Proportional Composite Sample over 24 Hour Period				
W1	Tri-butyl tin (all Isomers) (TBT)	--	Flow Proportional Composite Sample over 24 Hour Period		BS 6068		
W1	Total Phosphorous	2 mg/l	Flow Proportional Composite Sample over 24 Hour Period		BS 6068-2.11:1984		
W1	Ammoniacal Nitrogen	--	Flow Proportional Composite Sample over 24 Hour Period				
W1	Total Nitrogen	--	Flow Proportional Composite Sample over 24 Hour Period				
W1	Dangerous Substances	None	Flow Proportional Composite Sample over 24 Hour Period		GC/MS analysis		

(1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
(2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
(3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
(4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ……. Date……..
(Authorised to sign as representative of Smurfit Kappa UK Ltd)

Permit Number: EPR/BJ7433IQ Operator: Smurfit Kappa UK Ltd

Facility: Snodland Paper Mill Form Number: Performance1 05/02/2015

Reporting of other performance indicators for the period DD/MM/YYYY **to** DD/MM/YYYY

Parameter	Units
BOD/ADT	kg/ADT
Suspended Solids/ADT	kg/ADT
Total Nitrogen/ADT	kg/ADT
Phosphorus/ADT	kg/ADT
CO_2/ADT	Tonnes/ADT
NO_x/ADT	Tonnes/ADT
Paper breaks	Number and duration (hours)
Auxiliary flare operation	Hours
Ragger wire (EWC 03 03 07)	Tonnage
Light rejects (EWC 03 03 07)	Tonnage

Operator's comments:

Signed …… Date……..

(Authorised to sign as representative of Smurfit Kappa UK Ltd)